

Swathe Services Select CEESCOPE-USV for New Inception USV

Swathe Services (Truro, UK) recently started trials of their first remotely-operated survey boat, jointly developed with local partner MSDS Marine. The Inception class portable USV is a professional hydrographic survey vehicle for single beam and multibeam surveying. A robust aluminum-hulled catamaran with dual weed-resistant thrusters, the main design goal was to provide maximum utility with minimum complexity, eliminating the often hidden cost of ownership of a USV. With easily-replaceable critical components and off the shelf battery power, the Inception USV is for surveyors who do not want to take on a USV science-project as well as a hydrographic survey. Simply launch, power up and start surveying!

In keeping with their overall design philosophy of “less is more”, Swathe selected the CEE HydroSystems CEESCOPE-USV as the complete single beam survey data handling package for their Inception vehicles. With centimeter-accurate RTK GNSS positioning, dual channel echo sounder, data handling and long-range telemetry in a single compact waterproof unit the Inception’s focus on simplicity of operation is elevated further with the CEE data system on board. While other USVs may rely on several interconnected components, multiple cable connections and data interfaces that require careful management, Inception USV operators simply turn on the CEESCOPE-USV and the shore base station and data are immediately available on the shore survey PC. Using hydrographic acquisition and navigation software such as HYPACK or Hydromagic all data including high definition echo envelope views are available in real time; with a 1PPS time stamped data output from the CEESCOPE, radio telemetry latency is completely avoided. While the Swathe Services approach was to produce a simple, easy to use package, this does not mean that the sonar performance is basic. With a 20Hz dual channel echo sounder with 3200 sample echogram, 20Hz RTK GNSS, and the ability to add side scan and real time video through the single data link, surveyors get a powerful single beam capability equal or better than common manned boat single beam setups.

The Inception USV is designed as a modular platform, with the goal of little or no additional costs for “captive” survey components that cannot be used elsewhere on other vehicles as needed. In this requirement, the CEESCOPE-USV was a perfect fit. Just unstrap the echo sounder and it is ready for surveying on a manned boat or personal watercraft.



To learn more, visit:

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