

First Aerial Drone-dipping Sensors Take Off with Valeport



A new system for autonomous airborne hydrographic surveys has been launched by THURN Group. The THURN QuickDip system of data collection uses aerial drones to carry Valeport sensors on pre-planned survey routes to deliver an efficient and repeatable method of gathering highly accurate survey data from inaccessible or dangerous waters.



UK-based THURN Group developed the innovative QuickDip technology for inland and coastal waterways to offer a range of benefits, including rapid data collection from multiple sites of interest, repeatable map-based surveys to monitor change detection, and the ability to safely collect data from difficult-to-access and dangerous waters, as well as restricted-access waters such as reservoirs.

Planned Survey Lines

THURN's QuickDip integrated drone-based system uses a [Valeport](#) sensor, a cable, a rotocopter drone and UgCS SkyHub/True Terrain Following (TTF) hardware – from the leading software developer for unmanned aerial systems SPH Engineering. THURN's integration of hardware and software allows the drone to fly at an accurate fixed height over water using a map-based pre-programmed autonomous survey pattern, and to dip the Valeport sensor into the water to take readings.

As Tom Hiller, general manager at [THURN Group](#), commented, there are many options with the QuickDip technology: "Using a drone to deploy sensors has distinct advantages over a boat; it is compact as well as easy to transport and deploy. Drones can be used in any location where there is a small area for take-off and landing, near the surveyed water. What makes this new system so exciting for autonomous data collection is a drone's ability to precisely follow planned survey lines using the map-based interface in UgCS and therefore deliver accurate, repeatable map-based surveys in previously difficult-to-access waters."

"We're launching the THURN QuickDip with the miniSVS and Hyperion range of Valeport sensors, which are respected for their high levels of accuracy, but this is just the first in an expanding range of drone-dipped sensors for coastal and inland water survey."



THURN QuickDip system in the field.

Wide Range of Sensors

The compact and robust environmental range of optical sensors from leading oceanographic and hydrographic instrument manufacturer Valeport are being offered as part of the QuickDip system, including the Hyperion range of environmental sensors for the measurement of turbidity, chlorophyll a, fluorescein, rhodamine or phycocyanin, as well as their popular miniSVS and SWIFT SVP.

Valeport's head of sales, Kevin Edwards, added: "THURN's integrated drone-dipping sensor system offers an exciting step change in autonomous data collection and Valeport is proud to offer support for innovation in the survey sector. Although this technology is launched with Valeport's miniSVS and Hyperion range, it is easy to expand the capability of the system with the addition of other field-swappable Valeport sensors."



THURN Drone with the Valeport Hyperion.