

TFE Wines Receive Recycled USV for Wastewater Lagoon Surveys

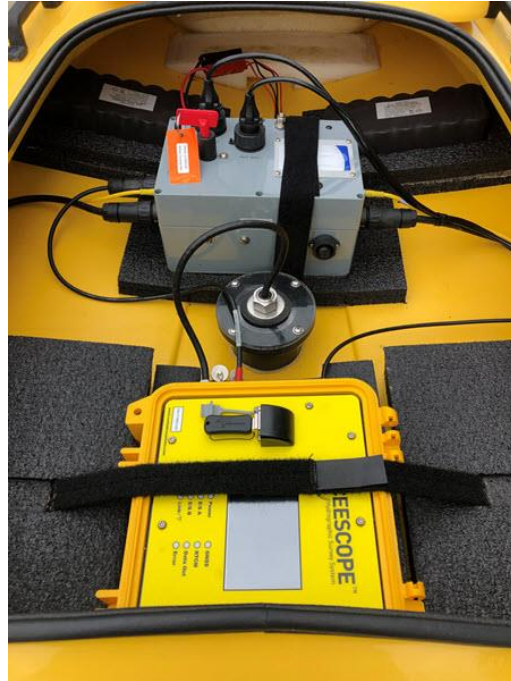
After a fatality elsewhere in the wine industry related to wastewater lagoon operation, Napa Valley producer Trinchero Family Estates (TFE) were looking at how to reduce risk involved with their infrequent wastewater lagoon bathymetry surveys. With the current procedure involving a CEESCOPE echo sounder and jon boat with electric trolling motor, TFE were hoping to retain the CEESCOPE and Hydromagic software approach but remove the jon boat and the operator from the lagoon.



Looking at the available options it was clear that a new USV package was unrealistic and overkill for the annual surveys. So, with a view to recycling and reworking materials that would otherwise go to landfill, CEE started a scavenging hunt to get enough parts to assemble a working USV from various old trade-in and non-functional USV collected over recent years. As the CEESCOPE™ echo sounder system was operating perfectly, only the vehicle and telemetry was needed.

Starting with a Z-Boat 1800 hull, the control electronics were removed and updated. All the existing data telemetry components were replaced with the CEE LINK™ system used in the CEE USV™. This presents a simple wireless Ethernet interface that allows the operator to use Hydromagic (or HYPACK) in exactly the same way as if working on the manned boat; nothing new to learn for the operator. A new transducer was installed in a sealed compartment inside the hull, which was a standard transducer installation method for these older boats.

One new feature was added to the boat that it never had when it was new - mixed throttle differential thrust. In addition to the directional steering from the pivoting outdrives, ratioed differential thrust is applied as the steering is turned. The boat now turns much better than it ever did through its first working life - very useful for the small lagoons at the winery.



With new batteries and the motor RPM turned way down to avoid any motor stress and potential failures, Recycled-USV was tested and shipped to TFE.

A great win-win for improved safety with a thoughtful solution. From a user standpoint, it's better than it was when sold new!