

Sonardyne Reveals Latest Seabed-to-shore Subsea Technologies



Underwater technology provider Sonardyne International Ltd has announced new additions to its 2020 product line-up. With a focus on compact yet capable unmanned and vessel instruments, Sonardyne has unveiled SPRINT-Nav Mini, a compact guidance and control solution, as well as ADCP functionality for its Syrinx Doppler velocity log (DVL) and a smaller, lighter version of its popular Gyro ultrashort baseline (USBL) transceiver.

Fixed Frequency Outputs

SPRINT-Nav Mini provides guidance and control outputs – orientation, velocity, altitude and depth – in a single instrument that weighs just 0.7kg in water for the 300 m-rated

version. By tightly fusing the information from each of its sensors, SPRINT-Nav Mini provides precise, robust and fixed frequency outputs, independent of each individual sensor's update rates. In replacing the need for three separate instruments – AHRS, DVL and pressure sensors – customers will benefit from reduced cost, less cabling and additional vehicle payload capacity. SPRINT-Nav Mini comes in a compact 215mm-high and 149mm-diameter housing and is also available in a 4,000m-rated titanium unit of the same size.

Acoustic Transceiver

Sonardyne is also introducing its second-generation Gyro USBL. This combines the vessel heading, pitch and roll data that's critical to USBL system performance, with an acoustic transceiver – all in one housing. But, using the experience gained from designing complex and compact sensor assemblies, the new Gyro USBL is now 30% shorter and 40% lighter. That means more vessels, including small vessels of opportunity and unmanned surface vessels, can get the best performance from their USBL using an even easier to handle and install instrument.

Gyro USBL is available in two performance levels: a cost-effective version for standard USBL operations, and a 'plus' version for long layback tracking and touch-down monitoring. Both versions will be delivered pre-calibrated, in-water, enabling users to get straight to work.

Acoustic Current Doppler Profiling

Finally, Sonardyne has also increased the functionality of its Syrinx 600kHz DVL. Specifically, Syrinx now has optional acoustic current Doppler profiling (ADCP) capability, as well as dual DVL/ADCP operations, without compromising bottom track. The ADCP data can be viewed and analysed using the new Echo Observer software.

When using SPRINT-Nav, which comes with a tightly coupled Syrinx DVL built-in, the addition of ADCP functionality really comes into its own. Users can get absolute profile velocities in the most challenging conditions while maintaining SPRINT-Nav's class-leading navigation performance. When a bottom track is not available, inertial velocities from SPRINT are used by Syrinx to compensate the ADCP water column velocities for vehicle motion. That means users get absolute water velocities through the local water column, even when they have no DVL bottom track.