

# Underwater Inertial Navigation



Advanced Navigation has announced the release of its Sublocus underwater navigation system. This is an underwater inertial navigation system featuring north-seeking fibre-optic gyroscopes and accelerometers with a GPS receiver and pressure depth sensor. These are fused together in Advanced Navigation's fusion algorithm to deliver positional accuracy of 0.08% of distance travelled.

The systems also provide highly accurate roll, pitch, heading, heave, depth and altitude. Sublocus is also available with an integrated RDI Workhorse Navigator DVL for combined acoustic and inertial navigation in the one product. Both models are supplied with a subsea GPS antenna and are rated to 3,000 metres depth.

Sublocus' enclosure is machined from a single block of high-grade aluminium and it has only one triple sealed join. It is hard anodised and TPFE coated for extreme resistance to wear and corrosion. Its software is built on top of a safety-oriented real time operating system and it is designed and tested to safety standards with fault tolerance in place. The electronics are isolated and protected from reverse polarity, overvoltage, surges, static and short circuits on all external interfaces.

The device has support for a wide range of peripheral inputs including speed logs, propeller speeds, DVLs, USBLs, SBLs and LBLs.

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<https://www.hydro-international.com/content/news/underwater-inertial-navigation>

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