Digital Yacht launch GPS150 DualNav™ GPS/GLONASS Sensor for next generation navigation

October 2013: Position is a navigation fundamental and we’ve all become increasingly reliant on GPS. The new GPS150 DualNav positioning sensor from Digital Yacht combines a super accurate 50 channel GPS with GLONASS, the Russian funded satellite positioning system that is now on line and providing an excellent back up or alternative to GPS. This “smart” sensor will automatically switch between the systems or the user can manually select the most appropriate for their activity. The GPS150 will also be able to utilise the European funded Galileo positioning system when it comes on line (IOC – Initial Operation Capability in 2018.)

The implementation of GLONASS as an additional satellite positioning system is probably the biggest step change in maritime navigation since GPS was fully augmented back in the mid 90’s. Digital Yacht’s GPS150 utilises the industry standard NMEA data format allowing older chart plotters as well as current generation products to take advantage of this new technology.

The GPS150 also allows the user to select a variety of different NMEA baud rates (4800, 38400 and 115200) to allow interfacing with legacy and current systems. It also supports a new TurboNav™ mode which will appeal to racing yachtsmen and performance users where GPS/GLONASS data is output at 10Hz (10 x faster update than normal) and with an interface speed of 115200 baud which is 24x the speed of normal NMEA data. This massively improves slow speed navigation data as well as providing the best course and speed data in a dynamic situation.

The GPS150 houses all the electronics in its compact 3” antenna and has a single multi core cable for power and data. Power consumption is just 30mA at 12V. It can be used as a simple positioning sensor for plotter or VHF DSC systems as well as a precision, high speed sensor for performance sailing or super yachts. Setup is easy with a block
of simple internal switches setting the characteristics of the unit. This allows the device to be programmed in the field without specialist software or programming tools.

Digital Yacht have also developed a range of external interfaces for the GPS150 including a wireless adaptor to allow data to be sent to mobile devices such as iPhones, iPads and Tablets as well as a USB interface for PC and MAC users. An NMEA 2000 interface will be available in 2014 allowing multiple sensors to be connected to a NMEA2000 backbone so the user can have alternative positioning inputs on complex systems.

The GPS150 is priced at $189.95 which brings affordable next generation satellite navigation technology to all maritime users. For further details from Digital Yacht contact 978 277 1234 or visit www.dualnav.com. Video online at http://www.youtube.com/watch?v=kb4HAlucH60

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Notes for editors:

GPS & GLONASS

It has been over 30 years since the first GPS receivers were commercially available and in this time the whole world has come to rely on this US funded technology for marine, land and air based navigation. The only other competitive system was the Russian GLONASS system which, although developed at around the same time as GPS, fell in to disrepair during the late 90s and only had 6 operational satellites in 2001.

Between 2002-2011, under Vladimir Putin's presidency, a large investment was made and at the end of 2011 GLONASS was fully restored and now offers worldwide coverage (with 24 operational satellites) and accuracy almost as good as GPS. In areas of high latitudes, GLONASS is more accurate than GPS due to the orbital position of the satellites.

A combined GPS/GLONASS receiver will give much better coverage, time to first fix and accuracy, due to over 50 satellites being available for tracking. When used inside the wheelhouse or if there are obstructions blocking the view of the sky, more satellites to choose from will improve all areas of performance and this is particularly noticeable when sailing along high coastlines, fjords or in rivers with adjacent buildings.
The GPS150 also supports SBAS (Satellite-Based Augmentation System) which is the generic name given to the differential signal transmitted by various local geo-stationary satellites. SBAS allows the GPS150 receiver to remove errors in the position due to environmental conditions and improves accuracy down to around 3 ft. Using WAAS in the US and EGNOS in Europe the GPS150 will automatically switch to differential SBAS mode when available.

Digital Yacht

Digital Yacht is a UK based manufacturer of specialist marine electronics. We produce a range of innovative products including AIS Receivers and transponders, WiFi servers for on board data, long range WiFi internet devices and a range of sensors including GPS and electronic compasses. Digital Yacht won the prestigious METS DAME Technology award for iAIS as well as the NMEA Technology Award for BoatraNet.