



NAVY RECOGNITION

DSEI 2017: STIDD Unveils Autonomous DPD Diver Propulsion Device

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As seen in Navy Recognition 2017 Trade Show Daily-News

American company STIDD Systems showcases its autonomous Diver Propulsion Device (DPD) during DSEI 2017, the International Defence & Security event in London, United Kingdom. The OM2 Optionally-Manned Vehicle Package renders the DPD autonomous and is a game changer for the end user.

The RNAV2 Precision Navigation System is an innovative electronic navigation system for use by combat divers, mounted in the DPD, or dismounted in seconds for swimming in hand-held mode. In either role, the RNAV2 offers SOF personnel the unprecedented capability of a navigation tool for precise clandestine subsea navigation, mine countermeasures, beach reconnaissance, ship-attack, missions, object identification, etc

The RNAV2 adjustable backlit 8.4" color LCD screen constantly displays the operator's position on a high resolution moving map display for instantaneous situational awareness. Position accuracy of 0.25% over distance traveled is achieved through a suite of high-accuracy on-board sensors and an optimized Kalman filter. The RNAV2 is powered by an internal BB-2590/U Li-Ion battery which provides system power for 7+ hours or 4.5+ hours when configured with the new 2S Sonar Option also unveiled at DSEI 2015.

The 2S Sonar Option for RNAV2 enhances the precision navigation capabilities of the RNAV2, adding high quality forward-looking sonar images to the operator in low- and zero-visibility environments for precise long or short range obstacle avoidance and/or target interrogation. Another new optional equipment for the



The STIDD DPD Diver Propulsion Device in OM2 Autonomous Mode

RNAV2 and DPD is the AP2 Autopilot. It provides exceptional RNAV2 control of the DPD by dynamically adjusting vehicle pitch and heading, automatically keeping the DPD on its programmed or manually-selected course and depth, while accurately compensating for the effects of currents, diver motions, and changes in diver buoyancy.

At DSEI 2017 STIDD unveiled the OM2 Optionally-Manned Vehicle Package. OM2 is a transformative system of vehicle control features that enable full remote autonomous control of the DPD. OM2 features include: • Automated Antenna Mast • Automated Throttle Control • Communications Receiver • Network Sensor Integration Hub.

Present at DSEI was the STIDD CP2 Cargo Pod as well. This low-drag towable capsule provides an additional 12 cubic feet (340L) of cargo space with minimal additional

drag, when towed behind the DPD. Optimized for minimal drag using advanced CFD (Computational Fluid Dynamics), and extensively dive-tested under real world conditions, the Cargo POD is fabricated from marine alloy aluminum and hardcoat anodized for prolonged corrosion resistance and rugged durability. Neutral buoyancy is provided by hard-mounted rigid foam volumes in the nose and tail sections. The 21 inch (0.53m) diameter and 92.5 inch (2.4m) length are compatible with NATO submarine torpedo tubes.

The POD weighs 80lbs (36kg) in air, and may be loaded with up to 700lbs (317kg) of neutrally buoyant cargo. The POD is towed from the DPD aft tow point. Horizontal and vertical Stern Planes keep the POD aligned within the shadow of the DPD, resulting in minimal additional drag. An additional Cargo POD may be added to double DPD cargo capacity from 12 cu-ft (340L) to 24cu-ft (680L).