Remote Control of Underwater Engine Pod

WFS Defense and WFS Technologies have completed delivery of handheld wireless remote control systems to WaveJet Technologies. This California (USA)-based company has recently introduced a series of Personal Water Propulsion (PWP) Surfboards, Stand Up Paddleboards (SUPs) and Water Rescue Boards. Powered by the patented WaveJet PWP pod, a miniaturised jet drive technology that may have applications for very-shallow water surveying.

The boards make 8 to 10 knots on still water, which is 3 to 5 times faster than paddling. The WaveJet PWP pod is designed for use in an open variety of boards and small watercraft from kayaks and kiteboards and scuba diving. WaveJet technology is a quiet, safe and green alternative to outboard motors and other external power sources.

WFS' patented through-water radio technology provides a reliable remote control solution that maintains two-way communications between the operator and WaveJet's PWP pod. The rider has the ability to control the propulsion system with the touch of a button on the custom designed wristband. The system allows positive operator control, and senses if the rider has fallen off the watercraft and will command an engine shutdown.

WFS Defense CEO, William Porter, recalls "when WaveJet contacted us, Mike Railey wanted to employ a wireless remote control device to operate his propulsion system. His initial experience with conventional RF remote control devices revealed that those devices were unable to reliably communicate through dense surfboard material and through short distances of seawater. Using our radio technology, WFS solved the problem by designing and manufacturing a remote control system consisting of the operator wristband and a transceiver in the PWP pod. Taking advantage of our sensing techniques, the WFS system knows when the operator is separated from the PWP pod and instantly turns off the electric motors. It's a wonderful project and we've thoroughly enjoyed working on it for WaveJet."