

Ocean Aero to Deliver a Fleet of Intelligent Autonomous Marine Vehicles



Ocean Aero, designer and builder of environmentally-powered autonomous, underwater and surface vehicles (AUSVs), announced a 'multi-million-dollar agreement' to deliver a variety of the company's AUSV models to the US Department of Homeland Security (DHS) Science and Technology Directorate (S&T) for a research, evaluation and testing programme.

Ocean Aero will deliver a mix of its Navigator and Discovery models and work closely with DHS and other programme participants – the US Coast Guard (USCG), US Customs and Border Protection (CBP), The University of Southern Mississippi, the US Naval Research Laboratory (NRL), and Cherokee Nation Strategic Programs, LLC. Ocean Aero's vehicles will be deployed in a wide range of ocean environments, providing a platform for the

integration, testing and evaluation of a variety of advanced sensors.

Three Models

Ocean Aero produces three models (all four metres in length) – the Navigator, the Discovery and the Scout. All of the models feature a unique combination of folding wingsails and solar panels that enables them to traverse long distances.

Rechargeable lithium-ion batteries power command, control, communications and sensor payload functions. The retractable wingsail allows the vehicles to submerge and avoid harsh surface conditions, evade detection and perform subsurface data collection tasks.

Each model also has distinct capabilities. The Navigator performs duties on the surface and can transform into a fully autonomous underwater vehicle, capable of submerging to 200 metres depth. Precise underwater navigation is achieved using an Inertial Navigation System (INS) coupled with a Doppler Velocity Log (DVL), with propulsion coming from dual electric thrusters.

Underwater Navigation System

The Discovery is not equipped with an underwater navigation system, as it is designed to collect vertical and horizontal profile data while submerging to a maximum depth of 100 metres. The Scout is a fleet surface data collection vehicle, easily directed to a variety of positions in a mission set. The Scout can also submerge to the water surface level to provide added survivability in rough weather or, if needed, decrease the detectability of the vehicle.

The Launch and Recovery System (LARS) for all models is a safe, time-saving solution, the company says, and can be operated from a ramp, the dockside or at sea. Supported by US patents, Ocean Aero's intelligent autonomous technology is ideally suited to fit the programme's various strategic maritime missions, ranging from intelligence and surveillance to marine mammal tracking, to metocean data gathering to persistent situational awareness.

About Ocean Aero

Ocean Aero is a creator and builder of environmentally-powered, intelligent and autonomous, underwater and surface vehicles (AUSVs). The company has developed the first hybrid wind and solar-powered surface and subsurface vehicle designed for extended ocean observation and data collection.

www.oceanaero.com.