Sharktech Autonomous Vessels Can Also Manage Payloads

Louisiana, USA-based shipbuilder Metal Shark has joined forces with autonomous vessel technology developer ASV Global to introduce “Sharktech” Autonomous Vessels. Metal Shark is offering Sharktech autonomous technology on its entire portfolio of vessels, which range from 16’ to over 300’ in aluminum, steel, and composite. Sharktech autonomous vessels may be custom configured for hydrographic survey, military, law enforcement, fire rescue, and the full spectrum of applicable commercial markets.

ASV Global is bringing ASView unmanned vessel control technology to market, offering multiple modes including unmanned operations, reduced manned operations, or conventional manned operations. ASV Global can also assist with mission payload and sensor integration, control, and remote supervision.

Beyond simple waypoint navigation or the execution of pre-programmed mission routes, Sharktech’s ASView onboard digital control system features dynamic collision avoidance with robust decision-making capability. Depending on configuration, the system considers data from multiple situational awareness inputs, including multiple radars, 360-degree daylight and thermal cameras, and AIS to safely identify and steer clear of stationary and moving obstacles.

Payload Control

Sharktech’s ASView system allows for autonomous or remote operation of navigation and safety lighting, hailers and sirens, pumps, and other components. The system also supports the integration and autonomous or remote operation of a near-infinite range of specialised equipment, including hydrographic survey equipment; equipment for acoustic, oceanographic, or meteorological monitoring; fire pumps, monitors, and other fire-fighting equipment; and the full spectrum of FLIRs and other specialty cameras.

The vessel’s operations can be monitored from a mother ship via radio link, or from shore via satellite link. In the instance of lost primary and backup communications, the vessel will assume pre-programmed behaviour, such as station-keeping. Other safety features include geo-fence tools, emergency-stop buttons, and the ability to switch from autonomous to manual control at any time.

Live Showcase

To showcase the new technology, Metal Shark and ASV Global are taking a Sharktech-equipped Metal Shark 38 Defiant patrol boat to the 2018 Multi Agency Craft Conference (MACC) in Baltimore, Maryland, USA, for a demonstration on 18-19 July 2018. The Sharktech demo vessel showcases multiple layers of autonomy, as it also carries a Shearwater aerial drone from Planck Aerosystems that may be launched, flown, and landed autonomously from the moving vessel thanks to an integrated navigation and guidance system.

In order to rapidly meet anticipated demand, Metal Shark has pre-engineered its most popular models for Sharktech autonomous capability, and has also added Sharktech vessels to its Stock Boats program, which utilises staged hulls and repurposes in-production units to drastically reduce lead times.