

Nauticus Signs Contract with Shell for Autonomous Subsea Operations



Nauticus Robotics, developer of subsea and surface robotic services using autonomy software, has entered into an agreement with Shell to advance to the qualification phase for a more efficient means of acquiring subsea integrity data utilizing Nauticus' Aquanaut and Hydronaut robotic platforms. This collaboration will enable Shell to add an advanced tool to its subsea asset integrity

management line-up with the potential to improve subsea operations. Shell and Nauticus will collaborate with the industry's leading inspection tooling service providers, leveraging their expertise and technology to fully integrate into Nauticus' robotic service solution.

An initial feasibility study for the phase-gated project was recently completed, and the team now moves onto the operational qualification phase, which focuses on remote operations of the robotic duo using supervised autonomy and tool control using Nauticus' acoustic communication networking technology. The collaboration is targeting the preliminary work required for an offshore pilot project.

New Means of Conducting Subsea Work

"Working with a leading company such as Shell marks an exciting milestone for [Nauticus](#), and this collaboration further validates the superior capabilities and extensive use cases of our robots across the energy sector," said Todd Newell, senior vice president of business development at Nauticus. "Implementing our supervised autonomous method – one that has proven more robust and dynamic than most of its kind – is expected to provide our partner and future customers with more than 50% cost savings compared to today's methods of operation."

This collaboration will utilize the company's flagship and fully electric subsea robot, Aquanaut, which is deployed from Nauticus' small surface vessel, *Hydronaut* – which is used for the transport, recharge and communication for Aquanaut, among other tasks. Together, this robotic pair will function as a unified solution to bring a new means of conducting subsea work to the offshore services industry. Their inherent autonomous architectures will allow a transition to far more autonomous operations over conventional solutions.

"An exciting aspect of this project is the opportunity to combine the strengths of advanced inspection tooling with the advanced marine robotic capabilities developed by Nauticus Robotics," said Ross Doak, deepwater robotics engineer of Shell's robotics team. "This project aims to fundamentally improve how we collect subsea facility data, through the combination of 'AUV native' tooling design, supervised autonomy and recent improvements in remote communications."



The Aquanaut automatic subsea robot carried by Nauticus's™ Hydronaut boat, which can navigate both crewed and uncrewed. (Courtesy: Nauticus Robotics)