

ECA Group Shows Off USV/ROV Combo for Subsea IMR Ops



ECA Group has demonstrated the capability of performing a subsea inspection using its USV (unmanned surface vehicle) Inspector deploying a H300V type ROV (remotely operated vehicle) within a research and development program led by Total and TechnipFMC.

During offshore operations ROVs are deployed from manned vessels dedicated to inspection, maintenance and repair (IMR) operations.

Total and TechnipFMC were interested in finding new cost-saving solutions while maintaining a very high level of safety. Thus, a solution based on USVs deploying ROVs has the potential to replace traditional manned surface vessels for various light subsea IMR activities, ECA explains.

ECA Group worked alongside Total and TechnipFMC in order to demonstrate the possibility to deploy and operate an ROV from a USV using a wireless communication link.

Following the recent technical paper presentation by TechnipFMC, in collaboration with Total about "Opportunities and Challenges of remote operating a ROV embarked on an USV", ECA GROUP has demonstrated the concept by successfully carrying out an inspection task using both its H300V ROV and USV Inspector through a wireless communication link.

During this operation, an operator has conducted repetitive tasks on a simulated subsea asset, using an H300V ROV deployed from the USV Inspector controlled from an onshore facility. Total and TechnipFMC were able to evaluate the impact of modifying communication parameters on the ROV operations, gathering necessary information to validate the concept.

In particular, Total and TechnipFMC could evaluate the effect of video quality and latency over the ROV operability. In addition, the gathered data will validate TechnipFMC's simulator models, allowing further evaluation of the capability of an operator to perform an IMR activity using unmanned technology, ECA concluded.