

ALIVE: Successful Sea Trials

Following a series of tank and shallow water tests last summer, sea trials of ALIVE have successfully been performed in real conditions offshore the French Riviera.

The objective was for ALIVE to dock on a subsea structure (ROV-panel) autonomously and carry out pre-programmed operations, opening and closing valves with its hydraulic manipulating arm. Target approach, docking on the subsea structure and manipulation are controlled via a sophisticated on-board video and sonar image processing, matched with a CAD (Computer-Aided Design) image of the environment. Three dives validated the functions of each sub-system. The robot proved its reliability in coping with difficult sea conditions.

ALIVE was designed for light intervention work on offshore oil and gas fields in water depths of up to 3,000m and can be operated without either very long and heavy umbilicals or dedicated surface support vessels.

The success of the sea trials was a major step towards carrying out autonomous intervention in deep water. The feasibility of inspection, maintenance and repair operations using AUVs has been thus proven, particularly operations involving ROV panels.

The ALIVE Project is supported by the European Commission; CybernÃ©tix is the project co-ordinator and co-operates with Ifremer (France), Hitec Framnaes (Norway), Ocean Systems Laboratory of Edinburgh University (UK) and the European Joint Reserch Center (Italy).

<https://www.hydro-international.com/content/news/alive-successful-sea-trials>
