

Innovative Survey and Inspection Platform

OMM has announced that it is developing a bespoke, remotely operated underwater survey and inspection platform. After identifying a requirement for an integrated vehicle to perform survey and inspection of assorted assets from depths of up to 100m, through the intertidal zone to drying heights, OMM has conceived a unique approach to a problem which would usually require the deployment of multiple conventional ROV and diving spreads.

OMM has taken the approach of a customer who wishes to minimise project costs and risks. This has led OMM to develop an integrated vehicle which is capable of working both dry and submerged.

The vehicle is a four-wheel drive, all-terrain crawler which acts as a platform for conventional survey sensors and also has the facility to carry an onboard ROV. With full independent suspension supporting each drive system, the crawler is designed to provide the optimum platform for the onboard sensors. These will be used to track and survey both route corridors as well as fixed assets, including pipelines and cables. The ROV is also available to be remotely deployed for additional inspection of hazards and areas of particular interest or offshore installations which can be reached in a single journey from the shore.

Accurate positioning of the combined system is achieved using multiple technologies which ensure continuous navigation data is available, even through the harsh intertidal zone.

Rigorous design criteria were developed and adhered to during development, ensuring that the crawler platform will be capable of working in currents in excess of three knots, across all types of seabed terrain from soft sands, subsea obstacles to bedrock and up to 40° slopes.

System deployment to point of mobilisation will be achieved using a single HGV. From there, it may be loaded onto any vessel of opportunity from a multicat to a DP 2 vessel. Use of a crane based LARS ensures little or no modification of a host vessel is required, whilst control and monitoring will be undertaken from a standard ROV control van. The platform will be operated using a bespoke software system which will provide both ROV and crawler control.

The all-inclusive capabilities of this single package are designed to offer customers significant cost savings when compared with the use of multiple conventional packages to meet the survey and inspection requirements of key assets.

With flexibility being a keystone of the design specification, positive feedback has already been received from Energy and Telecommunications customers. The system is scheduled for delivery in 2012. OMM's Director of Survey & Subsea, Arron Burrows, said that the need for such a vehicle is increasing almost by the day. "However, rather than rush through a quick-fix solution, we've taken great care to ensure that the vehicle will be useful for many years to come. Once the production and testing stages are complete, we expect it to be available for customers to use from Q3 in 2012."