Coastal Survey Vessel Maintains French Theme

UK-based seabed mapping and coastal survey specialist Osiris Projects has chosen iXBlue for the motion reference systems to integrate with the survey and navigation suite on board its new-build survey vessel the SV Bibby Tethra. The class-leading vessel will be fitted with an iXSea OCTANS gyrocompass/motion sensor and a HYDRINS inertial navigation system (INS).

The *Bibby Tethra* (on the image the special hull is visible) is nearing completion at SOCARENAM's Boulogne shipyard and is due to enter service in May this year. Osiris Projects is stressing that the extremely stable working platform that the 27.5m catamaran will provide, and thanks to the semi-SWATH hull design it will behave more like a 60m vessel in terms of seaworthiness and capability.

The vessel is expected to go straight to work in May, however, it has not been built solely for use on offshore renewable energy projects and Osiris Projects plan to find work for the vessel in the oil and gas industry and to use it in conjunction with ROVs and AUVs. Consequently, *Bibby Tethra* has been designed with dynamic positioning (DP) capability.

This feature first pointed Osiris Projects in iXBlue's direction when it came to specifying the motion reference systems on board the vessel. Osiris Projects survey manager Richard Hill explains: "DP classification requires two independent, IMO-certified heading aiding sources, which is exactly what the OCTANS and HYDRINS units provide."

Hill adds that Osiris Projects carried out extensive sea trials to ensure that the HYDRINS INS unit met the company's acceptance criteria in terms of the quality of the motion reference data required for the accurate seabed surveying and mapping work on which the company's reputation has been built. Using the DELPH INS post-processing software that iXSea supplies as part of the HYDRINS package, Osiris Projects expect to maintain very high positional accuracies even when the vessel is without GNSS aiding for extended periods.

"HYDRINS has been optimised for hydrographic survey applications," says David Cunningham, general manager of iXBlue in the UK. "The unit is compact and lightweight, requires no maintenance and has a very low power consumption. More importantly, though, it's more than a match in performance when compared to the positioning and motion compensation systems in this market, the most-trusted of which depends on GPS aiding to provide accurate heading information and so was ruled out in this particular multi-purpose survey solution."

The *Bibby Tethra* takes the number of vessels in Osiris Projects survey fleet to six. It is only 1m longer but is in effect 3 times larger than the company's existing flagship, SV *Chartwell*, which underwent a major refit in 2009, and will be one of the most advanced vessels of its kind operating in Europe. The survey company - and iXSea - are both confident the latest vessel will establish a new benchmark for coastal survey work.

The SV *Bibby Tethra* is state of the art in coastal survey vessels. It will operate with a C-Nav 3050 GNSS unit, a RESON SeaBat 7125 SV-2 multibeam sonar, a Sonardyne Scout underwater acoustic positioning system and a Knudsen 320M echo sounder. Motion reference for the survey equipment and heading inputs for the dynamic positioning system will be provided by an iXSea OCTANS 4 gyrocompass and a HYDRINS 3 inertial navigation system, the latter supported by DELPH INS post-processing software.