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OCEAN AND RESOURCES ENGINEERING

IN THE SCHOOL OF OCEAN AND EARTH SCIENCE AND TECHNOLOGY AT THE UNIVERSITY OF HAWAI'I AT MĀNOA

Optimized Seismic Operations with True Real Time OBC Positioning

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MSB 114

Wednesday, May 11

3:30-4:30 pm Seminar

Abstract

Shallow water seismic surveys require the deployment of OBC's (Ocean Bottom Cables) on the sea bed and the monitoring of their position before the job can start. Today's conventional method consists of installing LBL-like transponders on the OBC's at regular interval followed by a final survey to check their position. In the case that cable positions are out of their predefined corridors, the deployment must be adjusted or the cable redeployed, which leads to additional vessel time and money spent.

In cooperation with a major Seismic operator, iXBlue developed a solution for real-time position monitoring of OBC's while they are being deployed. The solution addresses the challenging conditions of shallow water, high elevation acoustic tracking, large number of transponders in the field, and ease of deployment and use of the complete system. This talk will describe the technical solutions implemented using GAPS USBL (Ultra Short BaseLine) and a new generation of transponders fitted for the job. This solution is now operated in real conditions and provides the expected time savings.