

Sonardyne Acoustics for Fugro's Brazilian Vessel



Brazil's most advanced ROV support vessel (RSV), the '*Fugro Aquarius*', is using specified acoustic positioning technology supplied by Sonardyne Brasil Ltda. to support its subsea inspection, repair and maintenance activities in the region. Already delivered and fully commissioned, the Ranger 2 Ultra-Short BaseLine (USBL) system is being used to track the precise position of the vessel's work-class ROVs in water depths of up to 3,000 metres.

Sonardyne is also providing the vessel's dynamic positioning (DP) system with position reference data to allow it to remain on location whilst survey operations are underway.

Launched in 2015, the 83-metre-long *Fugro Aquarius* has been designed specifically for the Brazilian market with over 60% of local content. This April, Petrobras awarded the vessel a one year contract to carry out work including subsea video and data acquisition, site investigations and asset integrity monitoring.

Integrated USBL and Inertial Sensor

For their vessel, Fugro specified that the Ranger 2 be configured with Sonardyne's deep water optimised [GyroUSBL 7000](#). The design of GyroUSBL incorporates a USBL transceiver and high survey-grade inertial sensor in the same unit. This combination increases precision by eliminating common sources of system error such as lever arm offsets, pole bending and ship flexing.

Deployed through the hull, GyroUSBL calculates the position of the vessel's two Fugro-built 150HP ROVs by measuring the range and bearing to the Wideband Mini Transponder(WMT) fitted to each vehicle. Small and lightweight, WMTs offer reliable tracking performance in crowded offshore environments where multiple vessels frequently conduct simultaneous operations in close proximity to each other.