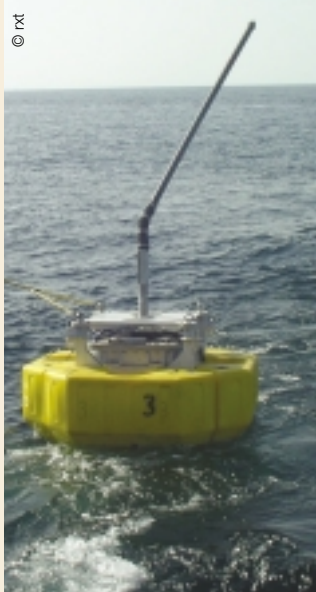


New Technology Promises Increased Efficiency



rxt is using I/O's Vectorseis Ocean system, which utilises solid-state accelerometer sensors whose performance has been extensively proven onshore. New recording, battery and telemetry technologies are incorporated into the radio controlled buoy-based acquisition configuration. The flexibility of this solution allows a reduction in the number of vessels required without compromising operational efficiency, claims rxt.

The newly established company rxt, formerly known as Terra Seismic Services, specializing in marine OBC 2C/4C seismic surveys, is presently acquiring its very first survey in the Gulf of Mexico for Chevron Texaco. Based on innovative technology, its aim is to acquire marine OBC 2C/4C-data in a much more efficient way than their competitors.

"Over the last few years a number of cases reported from the offshore arena have proven that multi component seismic, both two component (2C) and four component (4C), bring critical new input to the E&P process, in particular in terms of reservoir imaging and fault definition. The cost of seabed seismic is still, however, several times

higher than the cost of towed streamer data and therefore the market has not grown as expected," says Mike Scott, president of rxt.

"We believe we can change this through improved operational efficiency," he adds.

The current crew employs 6 cables, each 6000 m long, with 4C sensor nodes spaced every 25m, uses a shooting vessel and a dynamically positioned cable handling vessel and can acquire up to 5 - 7 km² of 3D data per day depending on survey parameters. Recording system command and control signals together with data for QC are telemetered from a digital recording buoy attached to each cable back to the vessels with ranges up to 15 km.

Each sensor node contains a 3-component MEMS (micro electromechanical systems) accelerometer (VectorSeis) and a hydrophone in addition to the cable telemetry electronics. Between the sensor modules there is a steel armoured cable with sufficient strength to carry the tension during deployment and recovery in water depths up to 2000m. This cable design permits the cable to be dragged into position where water bottom conditions allow. Dragging the cable in this way can improve sensor coupling to the seafloor. An I/O patented in-line stress



Cable handling is accomplished using specially designed linear cable recovery "engines" which, by ensuring that the cable is spooled onto the storage reel under constant tension, prevent crush damage which might otherwise occur during recovery.

decoupling system avoids the compromise in 3C vector fidelity which usually results from such tensioned deployment

"Operational efficiency in the movement of the recording cables is key to the overall crew performance. Deployment and recovery are accomplished using specially designed cable recovery "engines" which, by ensuring that the cable is spooled onto the storage reel under constant tension, prevent crush damage which might otherwise occur during recovery," says Chris Walker, Vice President, Geophysics.

The rxt management team brings with them more than 150

years of experience in marine seismic operations from several contracting companies under the leadership of Mike who held both field and operations management positions in both Seismograph Services Limited and GECO AS. As one of the founding members of PGS he was responsible for the rapid development of their seismic fleet in the 1990's.

"In particular, the team's experience of development and operation of complex 3D streamer acquisition systems is vital for new innovative solutions for rxt," Mike Scott said.



rxt's brand new cable vessel, the m/v Bourbon, whose dynamic positioning capability is of critical importance for precise, rapid deployment and recovery of the Vectorseis Ocean 4C cables.