

Repeat Order For Subsea Environmental Monitoring System



Fastwave Communications has received a repeat order for its satellite based turbidity monitoring system. The system is part of Western Australia's largest marine monitoring project, being developed and implemented by Woodside Energy. Woodside is developing the giant Pluto gas project, located off the remote North West coast of Australia. The repeat order is to support an expansion of the marine monitoring system.

The world class monitoring program provides early detection of conditions that could affect coral reefs over 1100 square kilometres of the environmentally sensitive Mermaid Sound, where a major pipeline dredging project is underway to bring the gas onshore.

The turbidity monitoring system developed by Fastwave provides near real-time data from 12 autonomous instrumentation modules positioned on the sea floor in strategic locations surrounding the pipeline dredging operations. The offshore monitoring sites are beyond the range of terrestrial communications, requiring the use of satellite telemetry. Each subsea module includes turbidity sensors, data loggers, Iridium Satellite telemetry equipment and re-chargeable battery packs. These units are connected via specially developed underwater coaxial cables to small relay buoys equipped with compact, waterproof satellite antennas.

The instrumentation and electronics packages are located on the sea floor, rather than in data buoys, due to the prevalence of cyclones in the region, and have successfully survived two cyclones since deployment. Each site transmits three turbidity sample readings every 30 minutes via Iridium Satellite to Woodside's environmental monitoring team in Perth. With this reporting regime, the subsea units have an endurance of approximately 4 months before battery re-charging is required.