

Wireless Communication Demonstration at NASA Neutral Buoyancy Lab



WFS Technologies, UK, demonstrated a wirelessly-enabled OneSubsea SCM (Subsea Control Module) at a recent demonstration at NASA's Neutral Buoyancy Laboratory (NBL) using Seatooth enabled subsea wireless radio products in conjunction with a Seatooth PipeLogger network system and viewed in real time using a Seatooth Video unit.

The wireless sensor network comprising two Seatooth PipeLoggers and a Seatooth Controller Unit was deployed with one Seatooth PipeLogger measuring the temperature of a jumper, the second transmitting temperature data from a 'buried' location. The Seatooth Controller unit used a wireless RS232 module to integrate with the OneSubsea SCM to provide real time data monitoring and control. The OneSubsea SCM was Seatooth Video enabled using a Seatooth wireless Ethernet bridge and the video data transmitted

provided real time video streaming through water of the Seatooth PipeLogger demonstration.

Flexibility

Each WFS Technologies Seatooth PipeLogger unit houses two temperature sensors: one measures core temperature of the pipe and the other measures surrounding seawater temperature. The use of wireless, non-penetrating sensors delivers significant cost savings on installation, removing the requirement to 'hot-tap' and lay cables. It also delivers operational flexibility – a Seatooth PipeLogger can be attached to a pipe using magnetic clamps in a matter of minutes and removed with ease. In addition, using non-penetrating sensors removes the corrosion, plugging and cleaning problems associated with penetrative sensors.

In addition, the Seatooth PipeLogger systems are integrated with Seatooth Ensure, WFS's proprietary battery management system technology which enables the battery life of deployed subsea assets to be extended to up to 15 years.

The use of WFS Technologies Seatooth Video and Seatooth PipeLogger products can provide increased subsea production and deliver operating cost savings to the Offshore Oil & Gas industry by improving asset installation, integrity management and flow assurance as well as extending the working life of subsea assets.