Collaboration on Subsea Optical Communication

Sonardyne International announced on 13 March 2012 the creation of a new joint venture company together with the Woods Hole Oceanographic Institution. The spin-out company, called Lumasys, is to launch the first commercially available subsea optical communication system, BlueComm. This unique wireless communications technology promises to enable subsea data to be transferred at speeds equivalent to broadband.

Optical communications can be used to provide ultra-high data rates in typical deep water environments where there is little or no ambient light and turbidity is minimal. It is best suited to applications where significant user bandwidth is required or high levels of ambient noise preclude the use of traditional acoustic technologies.

This emerging technology uses high-power light-emitting diodes as the transmitter with a receiver based on photomultiplier technology that is so sensitive it can detect light energy at the level of a few photons.

BlueComm operates over short ranges of a few tens or even hundreds of metres with data transfer rates of up to 10 to 20 megabits per second to be achieved. It therefore provides an excellent complement to Sonardyne's traditional long range but lower data rate acoustic communications technologies.

Lumasys Inc. will be based in Falmouth, Massachusetts, USA, and will combine first-stage funding and engineering support from Sonardyne with the transfer of IP and technical expertise from WHOI.

Visit Stand G300 during Oceanology International to see BlueComm hardware in action.

Image: Sonardyne International has announced a collaboration with WHOI to launch BlueComm, the first commercially available subsea optical communications system.