

Automated Monitoring System



BioSonics is to unveil its latest generation of Automated Monitoring Systems at the OCEANS 2010 conference next month. This sonar-based tracking and monitoring system centres around BioSonics focused split-beam hydro-acoustic technology for the underwater assessment of marine life and other targets of interest. BioSonics split-beam transducers provide information on target location, size, swimming speed, and direction.

Utilising an integrated orientation sensor and a dual-axis rotator, the resulting system can be programmed to scan and rotate at any desired angle or interval, thereby dramatically expanding the sampling volume. An echo sounder control unit provides automated data processing and storage as well as system "watchdog" functionality to monitor operational

parameters including transducer aim, data storage capacity, power management, and echo sounder performance. Remote communication capability allows the system to automatically transmit status reports, target track lists, and trouble alerts if an abnormality is detected. The software can automatically perform a soft shutdown and reboot if necessary to minimize downtime and maximize data collection and system stability.

Packaging of BioSonics latest Automated Monitoring System has been retooled for autonomous, long-term installations. Surface electronics are rack-mounted in ruggedised, weatherproof housings and include an integrated LCD monitor, pull-out key board, and a heavy-duty power supply. Also available are heavy-duty transducer tripod mounts to maintain accurate positioning of scanning sensors on any seafloor substrate. The waterjet-cut aluminum tripods are completely adjustable with multiple levelling devices, diver-friendly hardware grips, and over-sized feet.

Applications for this autonomous monitoring technology include assessment of fish passage at intakes, marine mammal behavioural interactions around marine and hydrokinetic (MHK) devices, and evaluating the effectiveness of deterrent devices. BioSonics provides their Automated Monitoring Systems as turn-key comprehensive solutions with the requisite technical services including consulting, installation, data processing, and reporting.

<https://www.hydro-international.com/content/news/automated-monitoring-system-2>
