ADCP in Moored Profiler



McLane Research Laboratories (USA) has integrated and tested a Nortek acoustic Doppler current meter for the Mclane Moored Profiler (MMP), a wire-crawling profiler. In collaboration with NortekUSA, successful tests of the Nortek Aquadopp Profiler mounted to the MMP were expanded in fully integrating the current meter into the MMP data control and acquisition system for seamless deployment configuration and data collection.

The MMP autonomously profiles the water column in a time-series along a fixed tether. Profiling depth, time intervals and pressure stops are user-defined, and profiling patterns can span specific seasons or timeframes. An optional underwater inductive modem provides real-time communication between the MMP and a surface buoy or seabed node. The MMP can be

configured with a range of sensors, of which Nortek Acoustic Doppler Current Meter is a new option.

Multiple beams

When integrated with the MMP, the Nortek Acoustic Doppler current meter features Acoustic Doppler technology, allowing for the remote measurement volume to be located up-stream of the MMP and outside of the any flow disturbance. It has a four-beam transducer head, controlled by the MMP to use only three acoustic beams at a time to reduce power and always sample in undisturbed flow when the MMP is ascending and descending the wire. The device is upgradable to high resolution (HR) profiler mode for advanced turbulence measurements.

It can sample a single cell (current meter mode), with sampling rate up to 10Hz. The pressure rating is 1,000m and a low-profile shape protects the current meter from damage during deployment and recovery, as well as from debris at sea.

McLane offers two MMP models: the standard and extended version. The extended MMP provides 50% more battery capacity than the standard MMP.

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