

Sub-Surface Mooring Operations Group: Instrumentation



Nortek AQUADOPP Current Meter

Nortek AQUADOPP current Meter is another type of single point current meter used by SSMOG. These instruments are put in cages and attached in line in the moorings, but does have the capability of being clamped on the wire as well.

The Aquadopp® measures the Doppler shift occurring when transmitting and receiving sound along two or more narrow acoustic beams. The Doppler shift is proportional to the velocity component along the beam. The data can be combined, using the exact geometry, to generate 2D (minimum 2 beams) or 3D velocity (minimum 3 beams). Current Inventory is 28 instruments.

[Enlarge image](#)

Aanderaa RCM-11 Acoustic Current Meter



These are single point current meters using acoustic Doppler current sensing techniques. Other normally recorded channels are Temperature and tilt. Current Inventory is 30 instruments.

[Enlarge image](#)

McLane Moored Profiler (MMP)



These instruments are designed to be placed on a mooring wire and be able to provide a profile of the water along that wire and user determined intervals. Samples currents along with CTD properties using either FSI ACM and CTD or Seabird CTD and Nobska MAVS Current meter. Additional sensors include, but is not limited to, Turbidity, dissolved Oxygen and Fluorometer. The instrument is designed and has had successful deployments where it has traveled 1,000,000 meters over the period of one year. This has the advantage of being able to provide current and CTD profiles without actually having a ship stand by on station. Current inventory of 40 MMP's.

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Seabird SBE 37-SM μ Cat C-T recorder

These are instruments that clamp on mooring wire to record Temperature, and Conductivity as standard parameters and Pressure as an option. These are added to moorings to give added data parameters between current meters. Current inventory of 135 instruments, about half with the pressure option (6000m or full ocean).



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ORE OffShore 8011 Acoustic Release

These releases are used to provide location for moorings and to allow release of moorings from the anchors to allow recovery. When commanded with acoustic signals from aboard a vessel these can be commanded to release the mooring. For most deployments, two releases are mounted as shown to provide back-up in the event that there is an instrument malfunction and to still allow for successful recovery. Current inventory 98 instruments.



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Inventory



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McLane Profilers	33
Acoustic releases	85
Seabird SBE 37 CTD recorders	85
Seabird SBE 39 T recorders	50
Argos transmitters	30
	+
Aanderaa RCM-11 Current meters	32
Nortek Current meters	13

Last updated: September 19, 2014

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