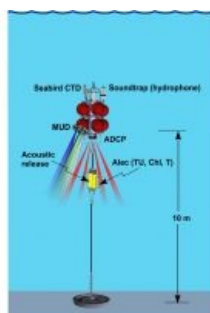
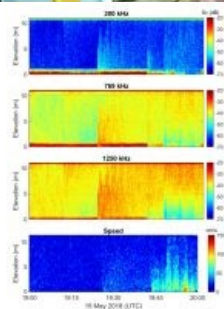


ASL Announces Next Generation in Acoustic Backscatter Measurements



set of higher frequencies (200 kHz, 769 kHz, 1.2 MHz and 2.0 MHz) that will allow for a broad range of particle size discrimination.

While the AZFP is a high gain device for low scattering conditions and the greatest possible range, the MUD echosounder is a lower gain system that is being tuned to work in higher backscatter regimes such as the bottom or high concentrations of suspended sediment. ASL's echosounders are designed for autonomous deployments, with small size and low power draw.



Bute Inlet bathymetry.

Turbidity flows

In May 2018, Dr Gwyn Lintern of NRCan, in collaboration with university researchers, deployed a three frequency (200 kHz, 769 kHz, 1250 kHz) MUD in Bute Inlet, one of the principal inlets of the British Columbia coast. This site was selected due to its large number of seasonal turbidity flows. The timing of the deployment coincided with the spring freshet, a time where turbulent suspension of sediments was likely. On 15 May, a turbidity flow event was detected by the MUD. All three frequencies clearly recorded the characteristics of the turbidity flow without saturating. This real-world data, along with further in-situ and laboratory calibrations will provide a method to develop multi-frequency inversion techniques to resolve sediment concentration.



MUD deployment diagram showing mooring instruments.



Acoustic backscatter echograms showing turbidity flow.