



Solutions ENVIRONMENTAL SCIENCES

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The Newsletter For The Aquatic Sciences

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FISHY STORIES



Go With the Flow

The Columbia Power Corp is assessing what the potential impacts will be on the sturgeon habitat in the Columbia/Pend Oreille rivers in BC, Canada, as part of a proposed expansion of the generating capacity at the Waneta Dam. ASL has been contracted to do 3-dimensional numerical modeling of the flow regime in this area of complex flow patterns, including the Waneta Eddy. In addition, ASL will deploy 3 moorings plus take ADCP transects with a boat. We are testing our newly designed frame for the profiling Aquadopp, which is a new instrument by Nortek that will be added to our lease pool.

Fish School

ASL has leased Aquadopp current meters to Pacific National Aquaculture and is providing on-site training of their installation at one of their salmon farms in Clayoquot Sound, BC, Canada. Each farm requires 1 month of



data at 2 depths to satisfy government regulations. ASL will also assist in recovery of the instruments in mid July 2001.

WAVES AND ICE

ASL assembled a microwave-based real-time wave system, which will be installed on the bow of an FSO oil tanker. The oil tanker is moored at the Molikpaq OT Production Platform as storage for the oil. The wave data is sent from the bow to the bridge (200 – 300 meters away) by radio modem. This microwave sensor will replace a conventional WaveRider buoy sensor, which was unable to operate in new ice.

POAC 2001 Paper Presentation

John Marko will be presenting a paper entitled "Large Waves in Thick Interior Sakhalin Pack Ice" based on results obtained in 1998 from a large array of ASL's *Ice Profilers* and profiling current meters deployed in the Sea of Okhotsk. The described work will focus on identifying the circumstances which lead to the appearance of very large waves hundreds of kilometres inside the boundaries of thick pack ice and their implications for present understanding of wave propagation in sea ice media.

Marathon Oil

Marathon Oil has contracted ASL to define the extreme currents they might encounter at a new drilling site offshore Nova Scotia, Canada. ASL will generate this information from a review of existing current meter data and analyzing a recent 1-year data set.

Water Column Profiler

University of Victoria, BC, Canada used a modified version of an ASL *Water Column Profiler* in a new application – they towed it behind a boat (as opposed to mooring it). Preliminary results from the experiment conducted in Knight Inlet, BC, Canada in June 2001 indicate the data obtained were of high quality, including excellent resolution of zooplankton and fish targets.



Meet Us at Events

ASL & ASL A QFlow will be attending the following trade shows & conferences. We would like to have a chance to talk to you.

ASL

(POAC) Ports & Oceans under Arctic Conditions August 12–17 Ottawa
Oceans 2001 November 6–8 Honolulu

ASL A QFlow

WaterPower XII July 9 – 11 Salt Lake City
Hydro 2001 September 27 – 29 Riva del Garda, Italy

What Goes Around...

ASL has recently completed a numerical modeling study of the potential for re-circulation of cooling water at BC Hydro's Burrard Thermal Generating Station power plant in Port Moody, BC. The ASL-COCRIM model involved use of a very high resolution (4 m in horizontal) grid size in the vicinity of the plant, which was operated within a coarser model grid of 50 m horizontal size over the remainder of Port Moody Arm. The model provided vertical resolution of 2 m or better (10 layers).