



Latest Sales

Ice Profilers

- 1 IPS to SAIT, Russia
- 2 IPS to Shell Alaska
- 2 IPS to Woods Hole Group, MA
- 2 IPS to ConocoPhillips
- 1 IPS to Scripps Institution of Oceanography, CA

Shallow Water Ice Profiler (SWIP)

- 1 SWIP to University of Waterloo
- 1 SWIP to Environment Canada
- 1 SWIP to University of Alberta

Wave Profiler

- 1 WP to Woods Hole Group, MA

Acoustic Water Column Profiler (AWCP)

- 1 AWCP to Brian Bornhold for the Neptune Project at University of Victoria, BC
- 1 AWCP to Svein Vagle, Institute of Ocean Sciences, Canada
- 1 AWCP to Malinda Sutor, Louisiana State University
- 9 AWCPs sold to Dr. Jennifer Miksis-Olds, Research Associate at the Applied Research Laboratory and Assistant Professor in the Acoustics and Wildlife & Fisheries Programs at The Pennsylvania State University.

Dr. Miksis-Olds' 3 mooring packages of 3 AWCPs (125 kHz, 200 kHz, and 460 kHz) are being used to detect and monitor zooplankton. Simultaneous sampling with three frequencies will allow for size discrimination of detected targets. The AWCPs are integrated into research studies aimed at relating prey pattern and abundance to marine mammal habitat use.

They will be deployed in the Bering Sea and the Stellwagen Bank National Marine Sanctuary (SBNMS) off Cape Cod, MA. Research utilizing the AWCPs has begun this summer (2008) in the SBNMS. Units will be deployed on moorings in the Bering Sea this September. AWCPs on the Bering Sea moorings will be collecting acoustic data year round.

100th Ice Profiler Sold!

ASL Environmental Sciences of Sidney, BC, Canada has shipped two Ice Profilers™ to ConocoPhillips in early August 2008, bringing the total number of Ice Profilers sold to 100!

Since the late 1990's when ASL, in collaboration with the Institute of Ocean Sciences, first introduced this advanced upward looking sonar (ULS), the demand for high resolution measurements of sea ice thickness and the detailed under-ice topography of sea ice has increased enormously.

Ice research programs have expanded considerably, driven by the major changes in the ice regime of the Arctic Ocean and other areas. Offshore oil and gas companies are increasingly embarking on exploration and production activities in ice-prone areas like the Arctic Ocean, around Sakhalin Island, the Caspian Sea and the east coast of Canada. The Ice Profiler™ provides ice thickness and drafts that are required to understand the ice pack changes in the Arctic Ocean and elsewhere - changes which are not well understood through existing predictions and models.



Dr. Miksis-Olds deploying a mooring containing 3 AWCPs in Cape Cod, MA
courtesy Dr. Miksis-Olds

Currents and Waves Projects



On the equator... for Noble Energy EG Ltd.

A year-long program of current profile, water level and temperature measurements is being carried out in the vicinity of exploratory offshore drilling, in the area northeast of Bioko Island, Equatorial Guinea. Meteorological data (winds, air temperature, and humidity) is being measured concurrently from a weather station installed on the drilling platform. The year-long data sets will be analysed to provide metocean design inputs to developing a production system for this area.

Metocean Criteria Study for Noble Energy

The metocean design values for winds, ocean waves and currents were derived for the Block "1" lease area of Equatorial Guinea in West Africa. These values were computed using current and wind data collected for Noble Energy in 2007-2008

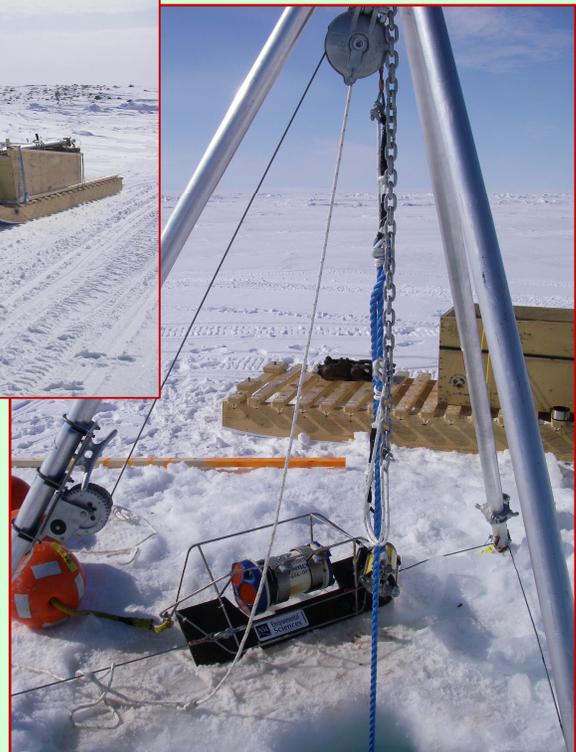
as well as industry hindcast data sets and coastal wave and wind data measured off Bioko Island. The metocean study was carried out using the methods of the international standard ISO/FDIS 19901-1 for metocean design and operating considerations for petroleum and natural gas industries.



Currents and Tides at Baffin Island

BaffinLand Iron Mines Corporation is proposing to construct a marine terminal in Steensby Inlet for shipment of iron ore from the Mary River site to Europe. Coastal and Ocean Resources Inc (CORI) are part of the team working

on the environmental aspects of the project and CORI subcontracted ASL Environmental Sciences (ASL) to measure currents and tides at the proposed terminal site. ASL deployed two ADCP current profilers in May 2008. One ADCP was frozen into the landfast ice and was successfully recovered in June, providing the first measurements of currents at the site. The second ADCP was deployed using a bottom mounted taut-line mooring and will be recovered during open water in October. As well as current profile data, this ADCP will have measured tidal heights over the deployment.



Ice Studies

Sea Ice in the Beaufort and Chukchi Seas

The data from three two-year long Ice Profiler/ADCP data sets were processed in this project. Two of the measurement sites were situated on the Mackenzie Shelf of the Canadian Beaufort Sea and one site was located in the northern portion of the Chukchi Sea. These processed data are used by the Institute of Ocean Sciences (DFO Canada) and by partner organization NOAA (USA) in assessing sea-ice hazard to offshore structures and the variability and trends of the sea ice in the Arctic Ocean.



An Ice Profiler deployment at 75 N in the Chukchi Sea

Sakhalin, Russia Ice Measurement Program

ASL provided processing and analysis of ice draft and velocity data obtained at three sites off NE Sakhalin Island during the winter and spring of 2006-2007 to Romona Inc on behalf of Elvary Neftegaz. Much of the basic data processing and analysis was carried out by ASL in Sakhalin Territory Russia to facilitate training of Russian personnel. Some advanced analyses of the data sets from 2006-2007 as well as the prior year, 2005-2006, were done to better characterize sea ice drafts and velocities for input to offshore oil and gas engineering design issues in this region.

3D Seismic Environmental Assessment in North West Territories, Canada

ASL had the lead responsibility for the physical oceanography and ice disciplines in the preparation of the Environmental Screening process carried under the Inuvialuit Settlement Region and the National Energy Board. ASL was contracted by Imperial Oil Ltd. and ExxonMobil through a sub-contract from Kavik-Axys Ltd., Inuvik NWT. The project involves extensive 3-D Seismic operations in the large EL-446 (Ajurak) lease area located over the continental slope north of the Mackenzie River Delta. A literature review was carried out, followed by community meetings in Inuvik and the preparation of the portion of the Environmental Description and Assessment document concerning physical oceanography and ice.

Study of Data and Research Gaps in the Canadian Beaufort Sea

A review of data and research gaps, in the Canadian Beaufort Sea, for the Environmental Studies Revolving Fund, related to hydrocarbon development and environmental issues, was carried out for Jacques Whitford Axys. The review included considerations of recent scientific research studies, as well as previous studies for regional environmental assessment and monitoring of the 1980's and 1990's. Recommendations were prepared of prioritized future research and data collection studies.

Ice Measurement Moorings in the Sea of Okhotsk, Russia

An extensive set of ice and oceanographic instruments and related equipment were prepared, assembled and tested at ASL for Elvary Neftegaz, a joint venture between BP and Rosneft. The instruments provided included four ASL Ice Profilers, four RDI ADCPs as well as acoustic releases and other mooring equipment. The equipment supported an extensive ice measurement program off Northern Sakhalin Island.



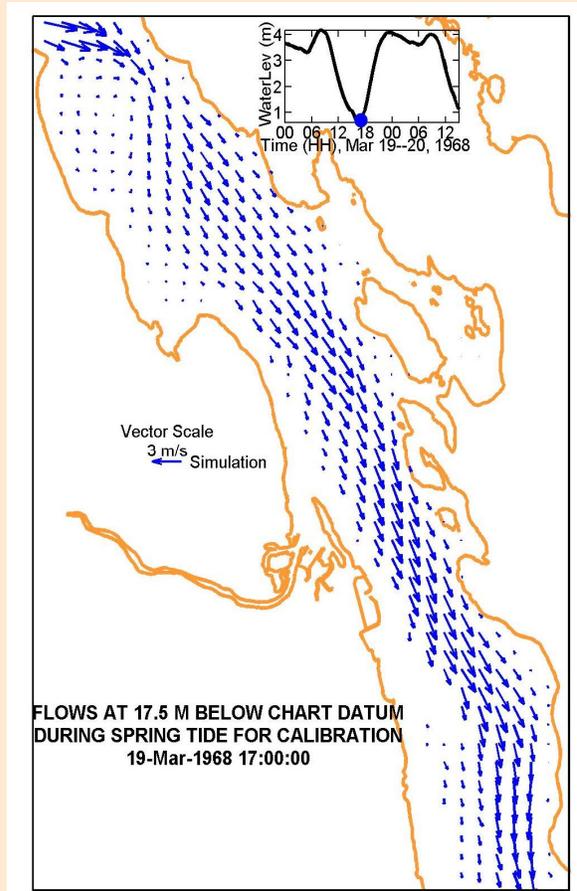
Numerical Modeling Projects

Numerical Modeling of Possible Tidal Current Turbine Sites

BC Tidal Energy Corporation and Marine Current Turbine Ltd are currently investigating potential sites for installing and operating underwater tidal current turbines in the Discovery Passage area off the east coast of Vancouver Island. As part of this investigation, ASL Environmental Sciences Inc. was contracted to provide model simulations of flows in the area using the three-dimensional coastal circulation model ASL-COCIRM.

River Circulation and Sediment Modeling

The circulation and sediments in the headpond of the Waneta Dam, and areas further upstream, on the Pend d'Oreille River, BC, were measured in April 2008, under two different river flow conditions. These data were then used to calibrate and validate COCIRM-SED, a very high resolution 3-D circulation and sediment model. The numerical model was then used to simulate the detailed flow field and suspended sediment concentrations for the largest expected river flows each year and each 10 years for the Waneta Expansion Power Corporation, a joint venture of the Columbia Basin Trust and the Columbia Power Corporation.



Modeling Tidal Currents in Discovery Passage

New People at ASL

Paul Johnston
Production Manager

Jeremy Lawrence
Oceanographic Services Engineer

Todd Mudge
Manager, Consulting Services

Anudeep Kanwar
Scientific Data Analyst

Meet Us at 2008/09 Events:

ASL will be attending the following trade shows & conferences. We welcome the opportunity to meet with you.

Remote Ocean Sensing Workshop, Germany
October 30-31, 2008

Ocean Renewable Energy Group, Whistler, BC
November 19-20, 2008

Ocean Business, London UK
March 31 – April 2, 2009

OTC '09 Houston, TX
May 4-7, 2009

Oceans 2009, Biloxi, MS
October 26-29, 2009



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