Solutions
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ICE PROFILING SONAR UPDATE

SAKHALIN ISLAND, RUSSIA

Four ASL **Ice-Profiling Sonars** (IPS-4) will be Redeployed off Sakhalin Island, Russia, for a fourth winter to measure sea-ice properties under a recently awarded contract with the Sakhalin Energy Investment Corp. ASL has also installed ocean current and wave monitoring instruments for SEIC's summer 2000 operations off Sakhalin Island.

ANTARCTIC GLOBAL WARMING STUDIES

ASL has just sold two of its **Ice Profiling Sonars** to Robert Beardsley of Woods Hole Institute, for the Southern Ocean Moorings being used in the GLOBEC Program. Ice measurements are included as part of the moored array.

Ice Draft - Definition

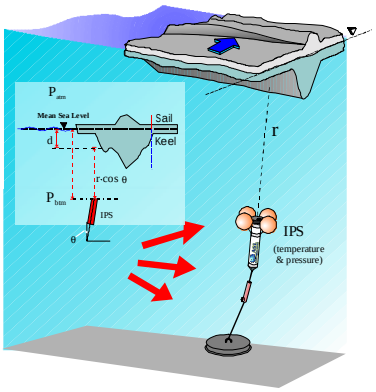
$$\eta = \frac{(P_{btm} - P_{atm})}{\rho g} \quad \text{(water level)}$$

$$d = \eta - \beta \cdot r \cdot \cos\theta \quad \text{(ice draft)}$$

β = function of C (speed of sound)

Determined from:

- bottom temperature
- CTD
- Open water events



LAUNCH OF ASL AQFLOW

After many months of preparations, ASL Environmental Sciences Inc. has made the decision to launch ASL AQFlow Inc. AQFlow's Mission is to produce acoustic scintillation flow measurement (ASFM) systems that will be globally recognized as the solution to the hydro-electric industry's toughest flow measurement challenges.

ACOUSTIC INSTRUMENTATION DEVELOPMENT

ASL has recently embarked on a contract from BC Hydro to develop a low-cost sonar to detect fish entrained in the intakes of hydroelectric plants. The first prototype tests are now underway.

FAST FERRY WAKE WASH

ASL conducted detailed measurements of the ship wash of a new fast ferry vessel recently put into service in the coastal waters of British Columbia in late 1999 and early 2000. The study was carried out for Sandwell Inc., an engineering company working under contract to the B.C. Ferry Corporation. Simultaneous measurements of the wake wash in deep water with ASL's **WaveSonar**, and shallow water with pressure sensors, was successfully completed. Analysis and modeling was developed from these measurements. For more details, see the report Wave Wash Studies of Fast Ferries: Accurate and Reliable Measurements with ASL's **WaveSonar**.

STAFF ANNOUNCEMENT

We are pleased to announce that David Lemon, formerly Vice President and Director, Service Division, has now become President of ASL Environmental Sciences.
David Fissel, our former President and CEO, has taken on the challenge of developing our Acoustic Scintillation Flow Meter line of products, as President and CEO of ASL AQFlow.

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