Ice Profiler™



Applications

In order to estimate ice forces, production rates, and mass balances, accurate measurements of ice thickness are essential. The Ice Profiler™ now makes those measurements much easier to obtain for applications such as:

- Offshore Oil Platforms
- Bridges and Causeways
- Research Oceanography
- Design of Coastal Structures
- Global Warming Studies
- Pipe Line Studies

Features

Excellent horizontal resolution using a high frequency (420 kHz) transducer with narrow (1.8º) beam width.

Large data capacity and integrity capability provided by on-board 8 Gbyte Compact Flash memory (up to 16 GB supported).

Enhanced sampling options (up to 2 Hz continuous sampling).

Multiple sampling options within a single deployment to accommodate seasonal changes in ice conditions (up to 12 phases).

Ocean wave monitoring capability.

Versatile PC-based software for deployment planning and initialization instrument testing and downloading of stored data.

Low power consumption permits long-term operation at high sampling rates.

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Ice *Profiler*™ Model IPS5 Specifications

UPWARD LOOKING SONAR

Operating Frequency	420Khz
Beam Width	1.8º
Sampling Rate	up to 2Hz
Duty Cycle	up to 100%
Range	175m(ice), up to 225m(water)
Precision	± 0.05m

REALTIME CLOCK

Accuracy	± 5 min/year

DATA STORAGE

Standard	8 GB Compact Flash
Optional	up to 16 GB Compact Flash supported

TILT SENSOR
(for sonar beam angle)

Range	± 20º
Accuracy	± 0.1º
Precision	0.01º

TEMPERATURE SENSOR

Accuracy	+/- 0.1ºC

PRESSURE SENSOR

Range	0 - 126dBar
Resolution	0.003dBar

(other ranges available)

POWER
Standard — Provides more than 52 weeks operation at 1Hz sampling and 100% duty cycle

SIZE — 0.17m diameter x 1.0m length

SHIPPING WEIGHT — 50kg (in ruggedized aluminum shipping/storage case)

SOFTWARE — The following Windows-based software is included in the Ice *Profiler*™ package:

Ips5Link	Communications software to enable setup and download functions.
Ips5Convert	Utility package for data plotting and conversion.

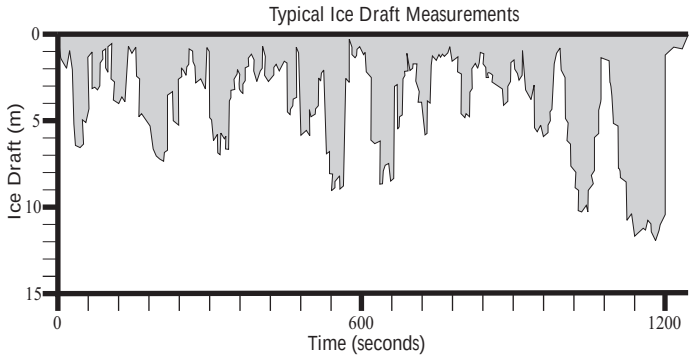
OPTIONAL FEATURES
Extended alkaline battery pack
Lithium battery pack

ASL offers a suite of nearly 200 Matlab-based programs for data processing and analysis of Ice Profiler and ADCP ice velocity data sets.

The Ice *Profiler*™ is also available in a version designed for river applications which includes an RS 422 serial connection for real time data and remote power - Shallow Water Ice *Profiler*™ (SWIP)

Custom versions of the Ice *Profiler*™ are also available for mounting in Autonomous Underwater Vehicles (AUV).

Both taut line and gimballed bottom mount moorings available.



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