

**New Digital Board  
With 16 Bit A/D**

# Ice Profiler™



**An upward-looking sonar device, mounted on the ocean floor to accurately measure ice draft.**



## 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 (1.8°) beam width.
- ~ Large data capacity and integrity capability provided by on-board 2 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



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# Ice Profiler™ Model IPS5 Specifications

www.aslenv.com

## UPWARD LOOKING SONAR

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

## TILT SENSOR

(for sonar beam angle)	
Range	± 20°
Accuracy	± 0.1°
Precision	0.01°

## REALTIME CLOCK

Accuracy	± 5 min/year
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## TEMPERATURE SENSOR

Accuracy	+/- 0.1°C
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## DATA STORAGE

Standard	2 GB Compact Flash (up to 16 GB Compact Flash supported)
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## 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
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## 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:

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

## OPTIONAL FEATURES

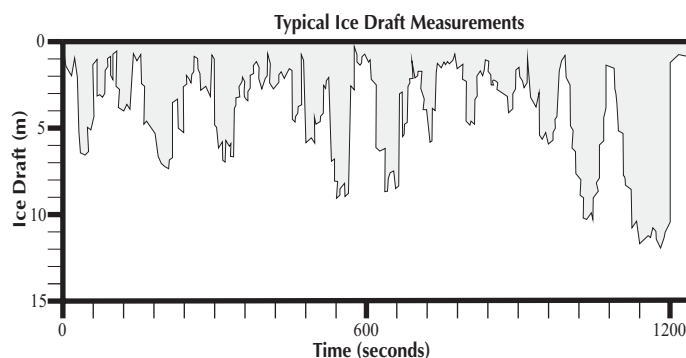
Delrin endcap  
Titanium housing  
Lithium battery pack  
Cost effective pressure sensor for shallow water

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.

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.



Ice Profiler™

