

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



**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
- ~ Design of Coastal Structures
- ~ Bridges and Causeways
- ~ Global Warming Studies
- ~ Research Oceanography
- ~ 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 flash E-PROM data storage (up to 128Mb).
- ~ Enhanced sampling options (integral multiples of 1 second).
- ~ Multiple sampling options within a single deployment to accommodate seasonal changes in ice conditions.
- ~ 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™ Specifications

## UPWARD LOOKING SONAR

Operating Frequency 420Khz  
Beam Width 1.8°  
Sampling Rate up to 1Hz  
Duty Cycle up to 100%  
Range up to 225m  
Precision ± 0.05m

## TILT SENSOR

(for sonar beam angle)  
Range ± 20°  
Accuracy ± 0.5°  
Precision 0.01°

## REALTIME CLOCK

Accuracy ± 12min/year

## PRESSURE SENSOR

Range 0 - 126dBar  
Resolution 0.003dBar  
(other ranges available)

## DATA STORAGE

Standard 64MB of flash E-PROM memory  
Optional 128MB for longer deployments/higher sampling rates

## POWER

Standard Provides 40 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:

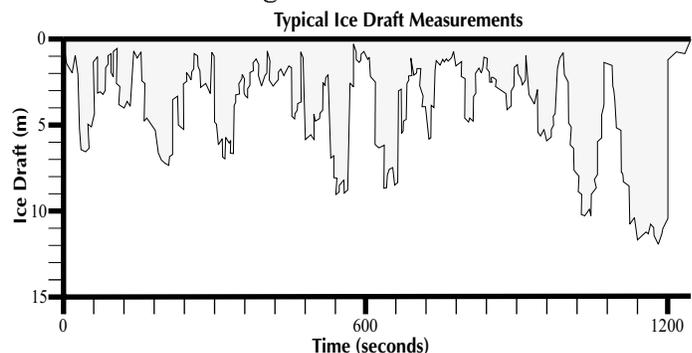
**IpsLink** Communications software to enable setup and download functions.

ASL offers a 4 day Ice Profiler™ data processing training course, which includes required software. Alternatively, ASL can perform this processing function.

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.



www.aslenv.com

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