

# Wave Profiler™



A highly accurate upward-looking instrument for measuring waves at Continental Shelf depths.

## Applications

The ASL Wave Profiler™ is an ideal instrument for very accurate wave measurements including:

- Offshore Oil Platforms:
  - Siting studies
  - Environmental studies
  - Monitoring
- Dredging & Sediment Transport studies
- Research Oceanography
- Fast Ferry Wash & Wake Studies
- Bridges and Causeways
- Design of Coastal Structures
- Infra-gravity Waves
- Seasonal Wave Studies  
(eg max. and typical conditions)

## Features

Allows derivation of standard ocean wave parameters from time series measurements of the acoustic range to the sea surface.

Offers exceptional data storage capacity allowing measurements at 2Hz burst or continuous sampling (4Hz sampling available at short ranges).

Provides very linear sensor characteristics eliminating errors due to steep-sided and long swell-waves. Unlike pressure-wave instruments, does not depend on linear wave theory assumptions.

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 8 Gbyte Compact Flash memory (up to 16 GB supported).

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.

Real-time output available through RS-232 or RS-422 digital serial communications.



#1-6703 Rajpur Place,  
Victoria, BC, Canada  
V8M 1Z5

phone ..... (250) 656-0177  
toll-free(NA).. 1-877-656-0177  
web ..... www.aslenv.com  
email ..... asl@aslenv.com

# Wave Profiler™ Specifications



UPWARD LOOKING SONAR	Standard (High Performance)	Optional (Ultra Performance)
Operating Frequency	420Khz	420Khz
Beam Width	1.8°	1.8°
Sampling Rate	2Hz	up to 4Hz
Duty Cycle	up to 100%	up to 100%
Range	up to 225m	up to 55m
Precision	± 0.05m	± 0.05m

<b>TILT SENSOR</b> (for sonar beam angle)	<b>REALTIME CLOCK</b>
Range ± 20°	Accuracy ±5 min/year
Accuracy ± 0.5°	
Precision 0.01°	

DATA STORAGE	
Standard	8GB Compact Flash
Optional	Up to 16GB Compact Flash Supported

POWER	
Standard	Provides more than 26 weeks at 2Hz sampling and 100% duty cycle
Optional	Lithium Battery Pack available for extended deployments Extended Alkaline Battery Pack

<b>SIZE</b>	0.17m diameter x 1.1m length (standard)
-------------	---

<b>SHIPPING WEIGHT</b>	37kg (in ruggedized shipping/storage case)
------------------------	--

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

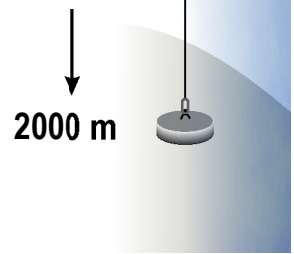
**WaveLink** Communications software to enable setup and download functions

**WaveSoft** Allows computation and display of significant wave height, peak period and auto spectra

OPTIONAL FEATURES
Delrin endcap Can provide Sea Ice Draft Profiling (with high resolution pressure sensor)

Custom version of the Wave Profiler™ are also available for mounting in Autonomous Underwater Vehicles (AUV).

Both taut line and gimballed bottom mount moorings available.



www.aslenv.com