

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 2 Hz burst or continuous sampling (4 Hz 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 GB 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.



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Wave Profiler™ Specifications



www.aslenv.com

UPWARD LOOKING SONAR

	Standard (High Performance)	Optional (Ultra Performance)
Operating Frequency	420 kHz	420 kHz
Beam Width	1.8°	1.8°
Sampling Rate	2 Hz	up to 4 Hz
Duty Cycle	up to 100%	up to 100%
Range	up to 225 m	up to 55 m
Precision	± 0.05 m	± 0.05 m
Resolution	± 0.01 m	± 0.01 m

TILT SENSOR (for sonar beam angle)

Range	± 20°
Accuracy	± 0.5°
Precision	± 0.01°

REALTIME CLOCK

Accuracy	±5 min/year
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DATA STORAGE

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

POWER

Standard	Provides more than 300 days at 2 Hz sampling and 100% duty cycle Burst sampling allows longer deployments
Optional	Lithium Battery Pack available for extended deployments Extended Alkaline Battery Pack

SIZE 0.17 m diameter x 1.1 m length (standard)

SHIPPING WEIGHT 37 kg (in ruggedized shipping/storage case)

SOFTWARE

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

IPS5Link 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™ is also available for mounting in Autonomous Underwater Vehicles (AUV).

