

AMS-60 Sonar Mapping System



Ideal for:

- Cable Route Surveys and Pipeline & Geohazard Searches
- Seafloor Searches in up to 6,000 m of water
- Marine Mining Exploration
- Geological Investigations

FEATURES

The AMS-60 is a deep ocean (6,000 meter operating depth) bottom mapping instrument which provides high resolution sidescan sonar imagery. In addition, a 4.5 kHz sub-bottom profiler gathers detailed geologic data from beneath the towfish which is then co-registered with the sidescan sonar data in the topside acquisition system. The AMS-60 has a sidescan sonar frequency of 57.6 kHz and variable swath widths from 250 to 2500 meters.

- Sub-Bottom Profiler – 4.5 kHz SBP for simultaneous acquisition of near-seafloor geological information.
- Integrated Navigation – Data telemetry and control channels for an acoustic interrogator/ receiver/ processor
- Wide System Bandwidth – Low Q transducers, combined with short, high power transmit pulses and wide receiver bandwidths provide the resolution of higher frequency systems with the range advantage of a lower frequency system.
- High Dynamic Range Signal Processing – Very low noise receivers with digital TVG applied in the towfish provide wide dynamic range needed for optimal signal quality.
- Excellent Towfish Stability – the two-body tow system uses a depressor weight and a neutrally buoyant umbilical to de-couple the towfish from ship heave which provides the stability needed for high quality imagery and bathymetry.
- Extensive Sensor Package – High precision depth, pitch, roll and heading sensors are sampled 5 times a second and transmitted to the surface to allow for correction for vehicle attitude changes.



Specifications

General	
Dimensions	3.0 m length x 1.0 m wide x 1.3 m high
Weight	680 kg, neutrally buoyant
Operating Depth	6,000 m
Tow Cable	Double Armored Coaxial cable
Depressor	680 kg
Umbilical	50-100 m, neutrally buoyant
Power Requirements	115 VAC, 60 Hz, 1 ϕ , 15A

Sonar	
Frequency	57.6 kHz port and starboard
Beamwidth	1.4° horizontal, 60° vertical
Transmit Power	Low 125W, high 2000W
Pulse Length	1 to 80 cycles, 17 to 1400 usec
Gain Adjustment	42 dB range in 3dB steps
Swath Widths	250 m to 2,500m
Range Resolution	Range / 2048
System Dynamic Range	72 dB

Sub-Bottom Profiler	
Frequency	4.5 kHz
Beamwidth	70° cone
Transmit Power	550 or 20 watts RMS
Pulse Length	1 to 16 cycles, 0.3 to 3.2 msec
Gain Adjustment	42 dB range in 10 3dB steps

Sensors	
Depth	Parascientific 410 KT, 0.5 m acc.
Attitude	Pitch and roll, 0.1°
Heading	Gimballed fluxgate compass, 0.3°
Navigation	RS232 @9600 baud

Our Mission

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