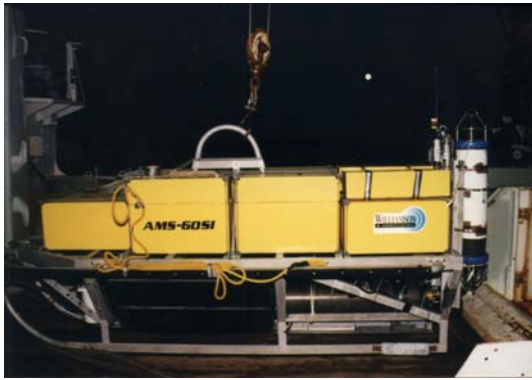


AMS-60 SONAR MAPPING SYSTEM



- Cable Route Surveys
- Pipeline Route Surveys
- Geohazard Surveys
- Geological Investigations
- Seafloor Searches
- Hydrographic Surveys

The AMS-60 is a deep seafloor mapping system capable of generating co-registered imagery and bathymetry across a swath of up to 2500 meters. The AMS-60 is an ideal general-purpose system, allowing both wide swath mapping and high-resolution target imaging. The swath bathymetric mapping capability produces maps at sub-meter accuracy.

Operational on swath widths up to 2500 meters, the AMS-60 extends the capabilities of high-resolution sidescan imagery and swath bathymetry to regional mapping.

FEATURES

- 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 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

GENERAL

Size – 3m long x 1m wide x 1.3m high
Weight – 680kg, neutrally buoyant in water
Depth Rating – 6000 meters
Tow Cable – double armored coaxial cable
Depressor – 680kg deadweight
Umbilical – 50m or 100m neutrally buoyant
Power Requirement – 115 VAC, 60 Hz, 1 ϕ , 15A

SONAR

Frequency – 57.6 kHz Port and Starboard
Beamwidth – 1.4° horizontal, 60° vertical
Transmit Power – low 125/ high 2500 watts
Pulse Length – 1 to 80 cycles, 17-1400 μ sec
Gain Adjustment – 42dB range in 3 dB steps
Swath Widths – 250m to 2.5km
Range Resolution – *Range/2048*
System Dynamic Range – 72 dB
Swath Bathymetry – isophase interferometry

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 in twenty 3 dB steps

SENSORS

Depth – Paroscientific 410 KT, 0.5 m acc.
Attitude – pitch and roll, 0.1°
Heading – gimballed fluxgate compass, 0.3°
Navigation – RS232 @9600 baud

AMS-60 REPRESENTATIVE PROJECTS & SURVEYS

PLACER DOME
EXXON
NAUTICOS
CABLE & WIRELESS
OMAN OIL CO.

Mineral Exploration Geophysical Survey, Papua New Guinea 2005
Site & Flowline Survey, Angola, West Africa 2001
Successful search for the I.N.S. Dakar, Mediterranean Sea 1999
CHINA-US Pipeline Survey, Korea - Japan 1997
Pipeline Route Survey, Oman to India, Arabian Sea 1994

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