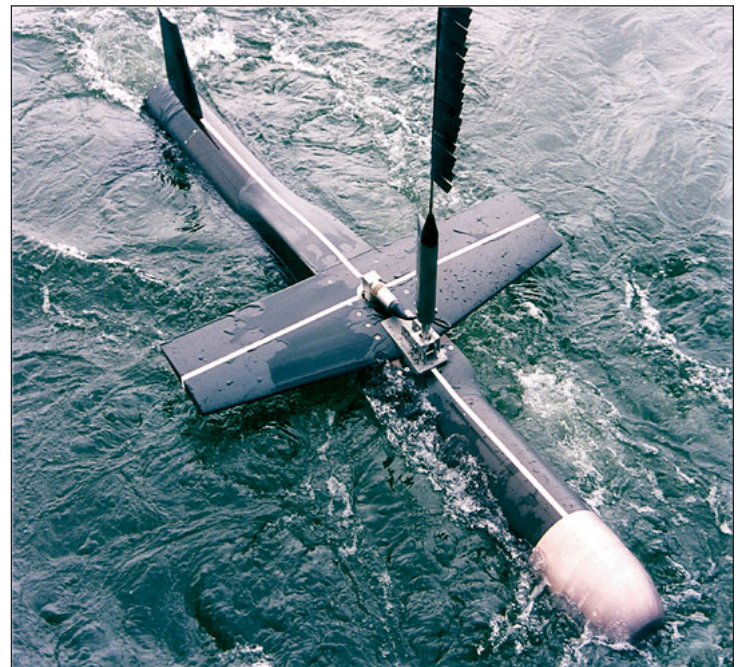




# K8000

## Advanced Mine Hunting Sonar



### Features

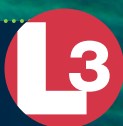
- Finds and classifies low target-strength mines in difficult environments
- Accurately locates targets for neutralization with exceptional speed
- High area coverage rate
- Superior imaging results / high contrast ratio
- One-pass operation
- Data leverage
- Operates in all weather conditions and performs in realistic operational environment (high sea states, currents, etc.)
- Readily cross-deckable
- Gap filler and synthetic aperture sonar functions
- Low cost, affordable (marriage of COTS / MIL-STD technologies)
- Easy to operate

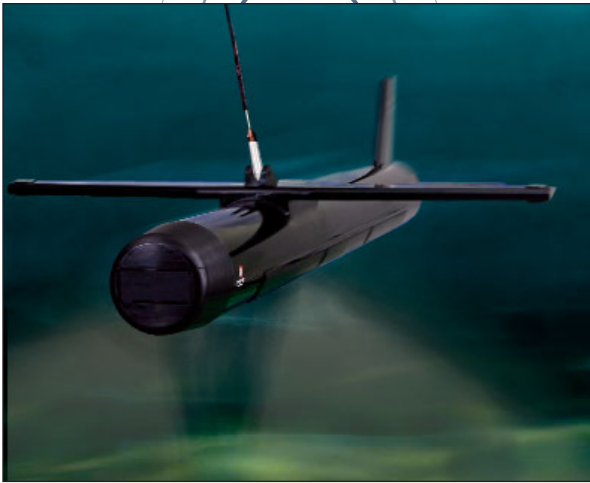
The K8000 is a high-resolution side scanning sonar that rapidly surveys large ocean areas to detect bottom and close-tethered mines.

The K8000 Advanced Mine Hunting Sonar (AMHS) system is comprised of the tow body, winch and handling subsystem and operator console. The tow body, sometimes called the tow fish, may be deployed from either small craft or helicopter platforms. The winch and handling subsystem provides the capability to launch, tow, recover and stow the tow fish.

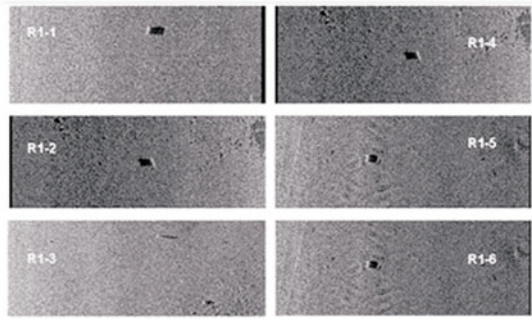
The K8000 uses high-strength composite materials for the lightweight tow fish. The entire AMHS system, including the operator console, is designed to be quickly installed and removed from craft of opportunity platforms and is packaged in a standard ISO container for easy transportation.

The K8000 produces photo quality, real-time images with unparalleled sharpness, at high tow speeds and in high sea state conditions. A high background-to-shadow contrast ratio enhances bottom features and target definition. Active motion compensation and advanced beamforming technologies nullify blurring caused by tow body motion, while geocoding and mosaicing produces seamless, high-resolution image bottom charts.





Raw Acoustic Images



Six Cylindrical Mine Targets in Mine Field (tow speed 10 kts, depth ~50 m, sea state 3)



Specifications

Tow Body Physical Characteristics:

Length	350 cm
Weight	270 kg
Power requirements	115/230 Vac, 50/60 Hz

Performance Characteristics

Three Sonar Modes:	Range (each side):
Classification mode	75 m (246 ft)
Det/Class	112.5 m (369 ft)
Detection	150 m (492 ft)

Resolution (constant with range):

Across track (all modes)	12.5 cm (4.9 in)
Along track	
Classification mode	12.5 cm (4.9 in)
Det/class	18.75 cm (7.4 in)
Detection	25 cm (9.8 in)

Coverage Rates at 10 kts:

Classification mode	0.7 nm <sup>2</sup> (2.3 km <sup>2</sup> /hr)
Det/Class	1.4 nm <sup>2</sup> (4.7 km <sup>2</sup> /hr)
Detection	1.9 nm <sup>2</sup> (6.2 km <sup>2</sup> /hr)

Background to Shadow Contrast Ratio:

Classification	>15 dB
Det/Class	>10 dB

SAS (option):

Maximum range	100 m
Resolution	4 cm x 4 cm
Shadow contrast ratio	6 – 10 dB
Detection	Depends on reflectivity of target; typically -30 dB

Gap Filler (option)

30 m swath covered by 256 beams

Special Features

- High precision acoustic short baseline system
- High-speed operation (12 kts)

Options

- Base mission planning database station

