

Specifications

Sonar Specifications

Operating Frequency	150 ~ 450kHz 500k,600k,700kHz
Number of Beam	512(1024 Optional)
Cross Track Beamwidth	0.3°@700kHz(Optional) 0.5°@400kHz/1°@200kHz
Along Track Beamwidth	0.6°@700kHz(Optional) 1°@400kHz/2°@200kHz
Swath Coverage	160°
Depth Range	0.2 ~ 500m+*
Depth Resolution	0.75cm
Max Ping Rate	60Hz
Sounding Mode	Equiangular / Equidistant
Signal Type	CW/Chirp
Pulse Width	30us ~ 8ms
Depth Rating	50m

Hardware Options

SVS	Built-in SVS1500M
SVP	Optional SVP1500
INS	Optional POS15, POS08
GNSS	Built-in POS INTrimble GNSS

INS/GNSS Specifications

Model	POS-15	POS-08
Heading Accuracy	0.015°,4 mBaseline/0.03°,2 mBaseline	0.01°,4 mBaseline/0.02°,2 mBaseline
Pitch/Roll Accuracy	0.02°(RTK)/0.015°(PPK)	0.01°(RTK)/0.008°(PPK)
Heave Accuracy	5cm,5%Real time,2cm,2%(TrueHeave)	
Horizontal Position	±8mm+1ppm(RTK,PPK),10cm(Satellite station differential,PPP),0 . 5~2m(DGPS)	
Auxiliary Position Data	1. Qianxun RTK,CORS Support 2. PPK PP-RTX Supported	

*Above Specifications are related to Survey Environment

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Mechanical Specifications

Sonar Dimension	490 × 455 × 145mm
Sonar Weight	25KG
Topside Dimension	200 × 145 × 76.5mm
Topside Weight	1.9kg
Operating Temperature	-2 ~ 40℃
Storage Temperature	-20℃ ~ 55℃
Power Supply	DC 10 ~ 32V/AC 110 ~ 240V
Consumption	90W~140W
Cable Length	15m(Optional8m/30m)

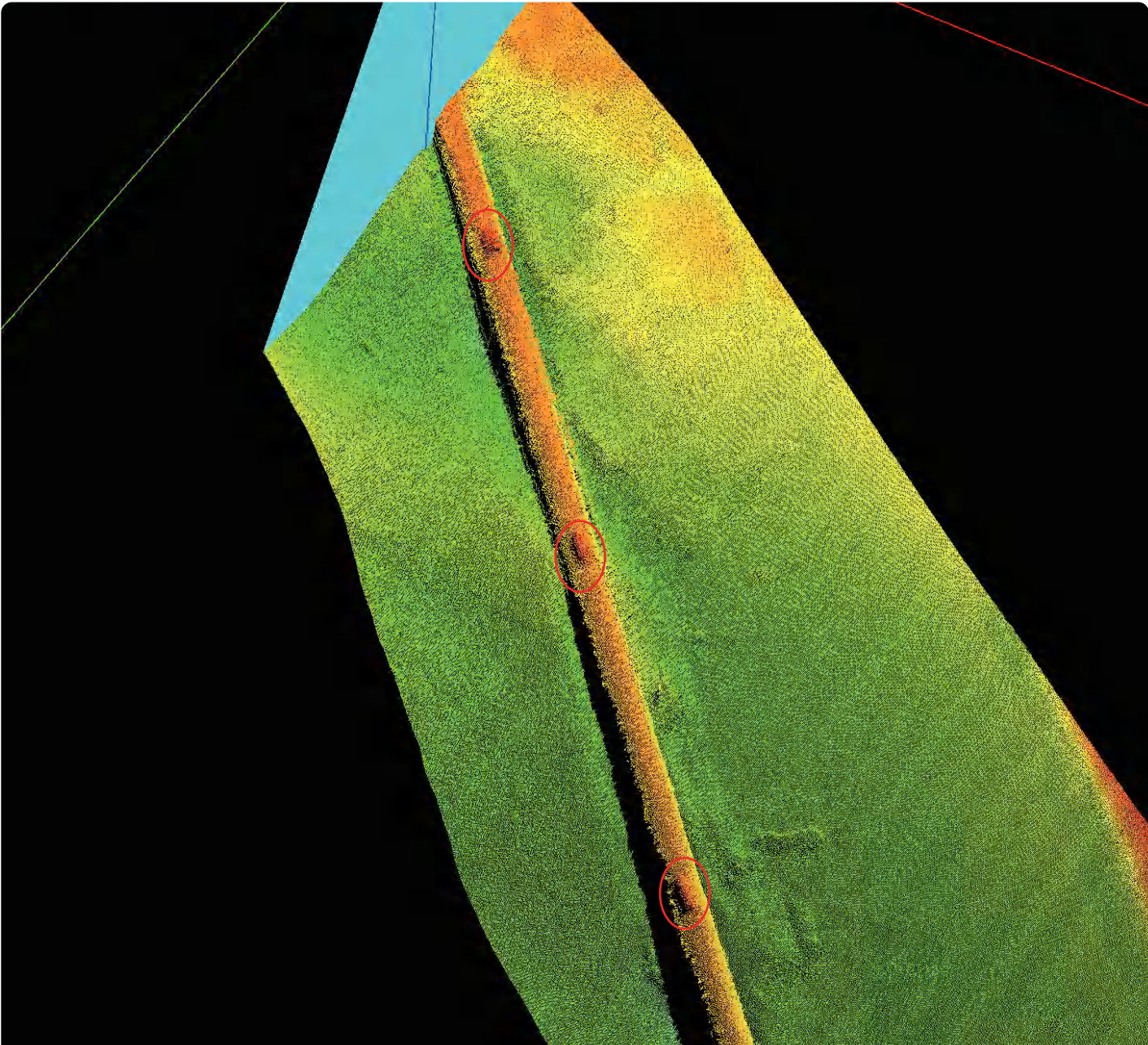
Software Options

Acquisition	HydroSurvey2024
Third Party Post Processing	Hypack, Qimera, EIVA, BeamworX
Third Party Acquisition	Hypack, Qinsy,EIVA, BeamworX,Caris

Key Features

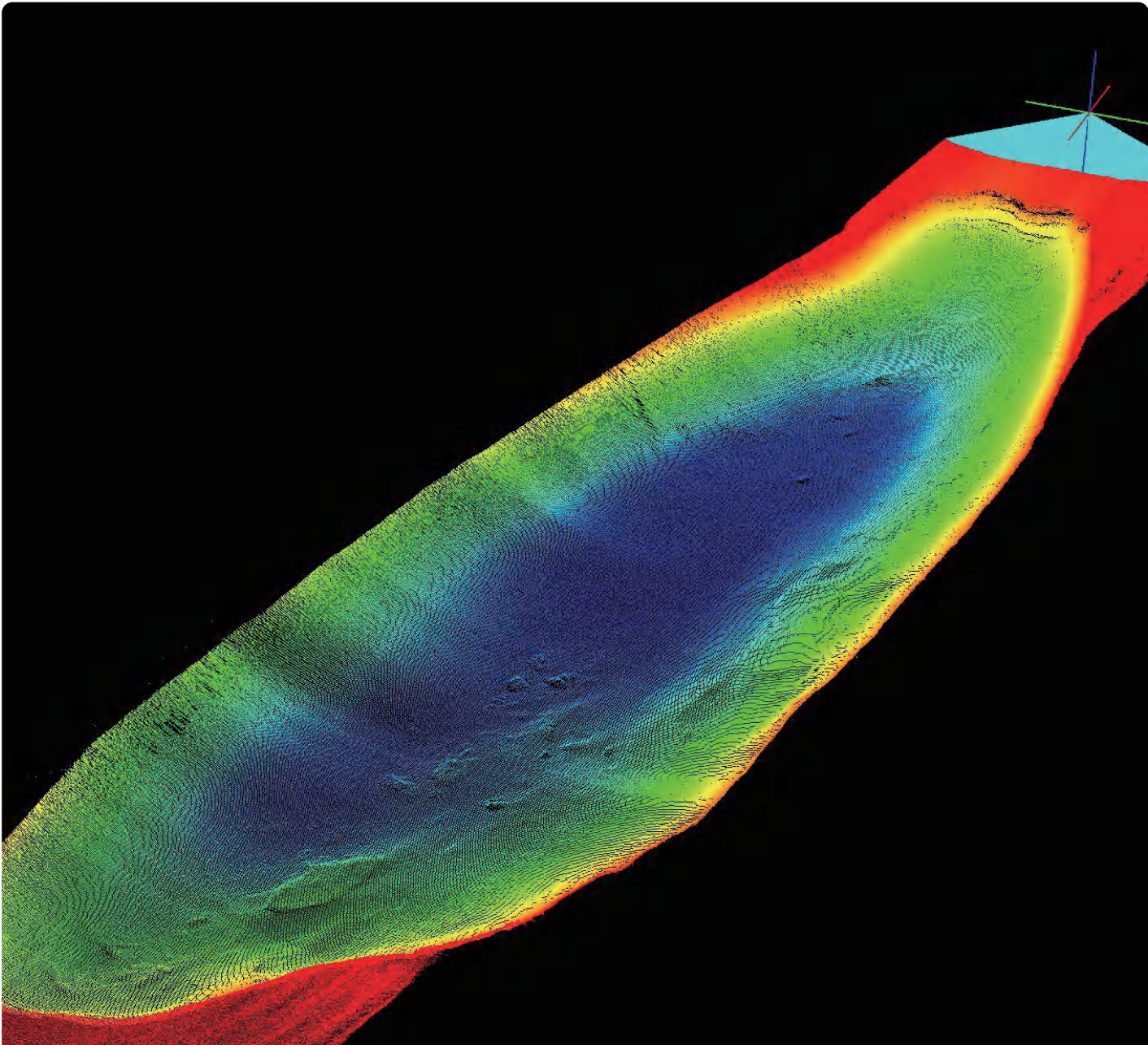
Near-Field Focus	Supported
Bottom Tracking	Supported
Water Column Imaging	Supported
Real-time Roll Stabilization	Supported
Muddy Water Bathymetry	Supported

Case Studies



Pipeline Anti-corrosive Condition Check

Case Studies



Ditch Condition Survey



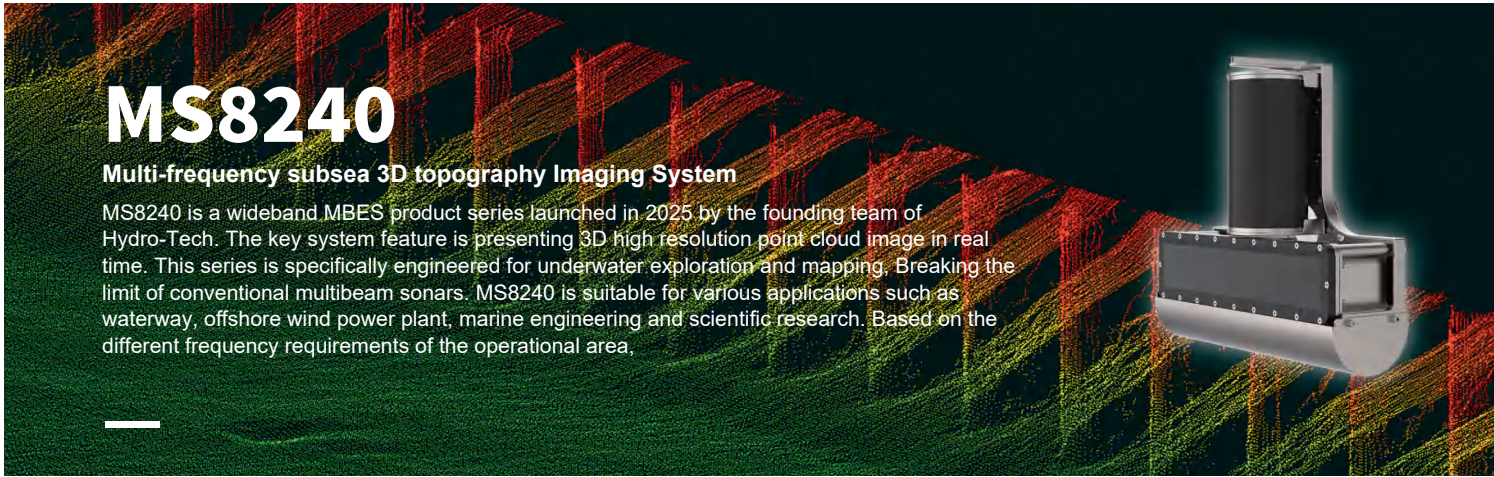
Features 700kHz Ultra High Operating Frequency

MS8240

Multi-frequency subsea 3D topography Imaging System



Beijing Hydro-Tech Marine Technology Co.,Ltd.



MS8240

Multi-frequency subsea 3D topography Imaging System

MS8240 is a wideband MBES product series launched in 2025 by the founding team of Hydro-Tech. The key system feature is presenting 3D high resolution point cloud image in real time. This series is specifically engineered for underwater exploration and mapping, Breaking the limit of conventional multibeam sonars. MS8240 is suitable for various applications such as waterway, offshore wind power plant, marine engineering and scientific research. Based on the different frequency requirements of the operational area.

Features



Selectable Frequency

150-450kHz frequency agility. 500, 600, and 700kHz three high frequency modes for precise and delicate seabed or target object mapping.



Automated Parameters

- Automatic control of
- Power and gain
- Spread loss
- Absorption loss
- Pulse width
- Gate and range.



Dual Sonar head Survey Option

Supports a V-shaped layout configuration with two sonar head, improved angular resolution of the edge beam angles and increased effective coverage in shallow water applications.



Multi-applications

- Strong adaptivity suitable for
- General topographic mapping
- Waterway dredging monitoring
- Environmental survey
- Marine scientific research.

Applications



Waterway Dredging Operation



Offshore Operation,
Marine Engineering
Construction

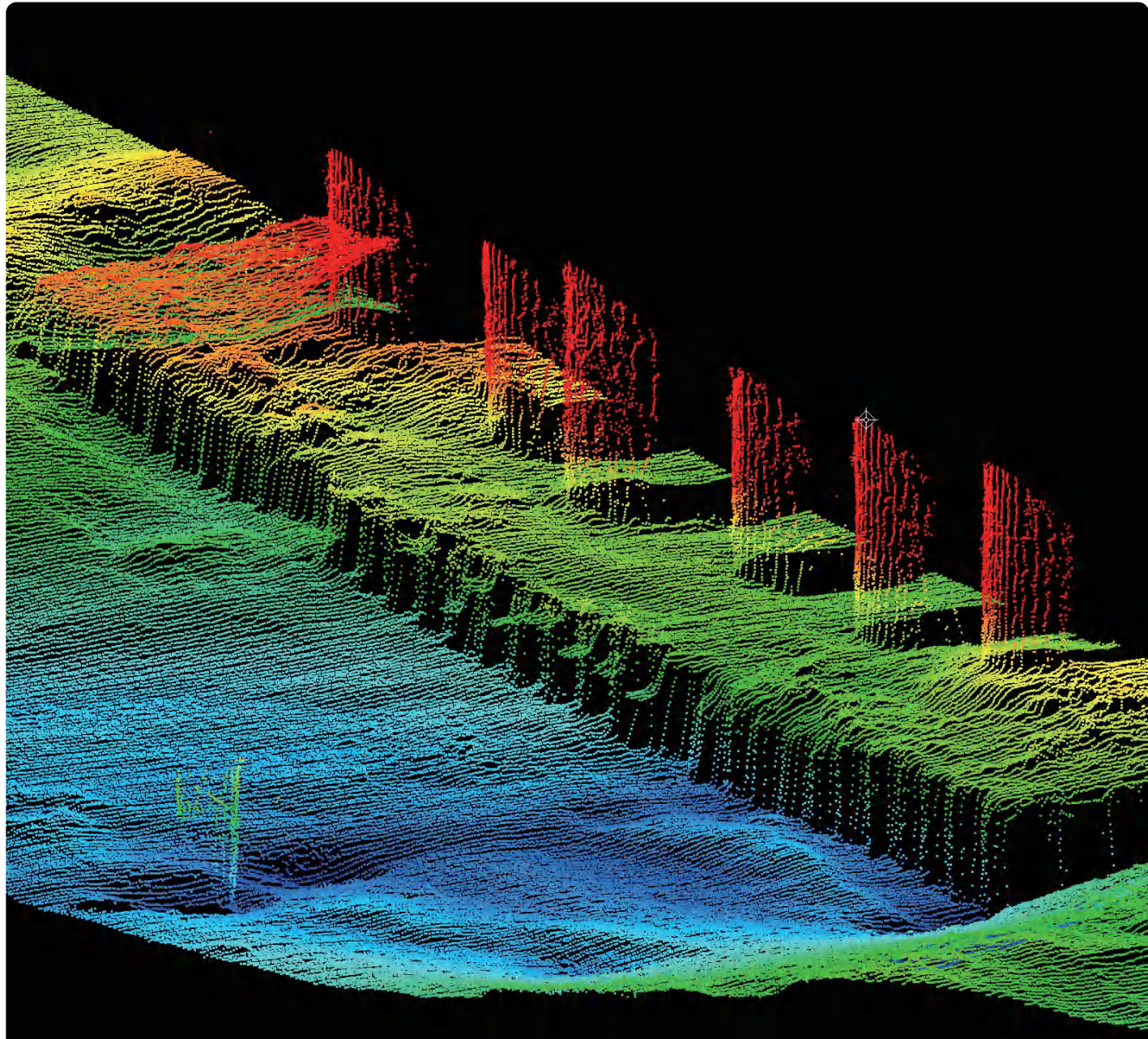


Marine Wind
Power Construction,
Port Maintenance



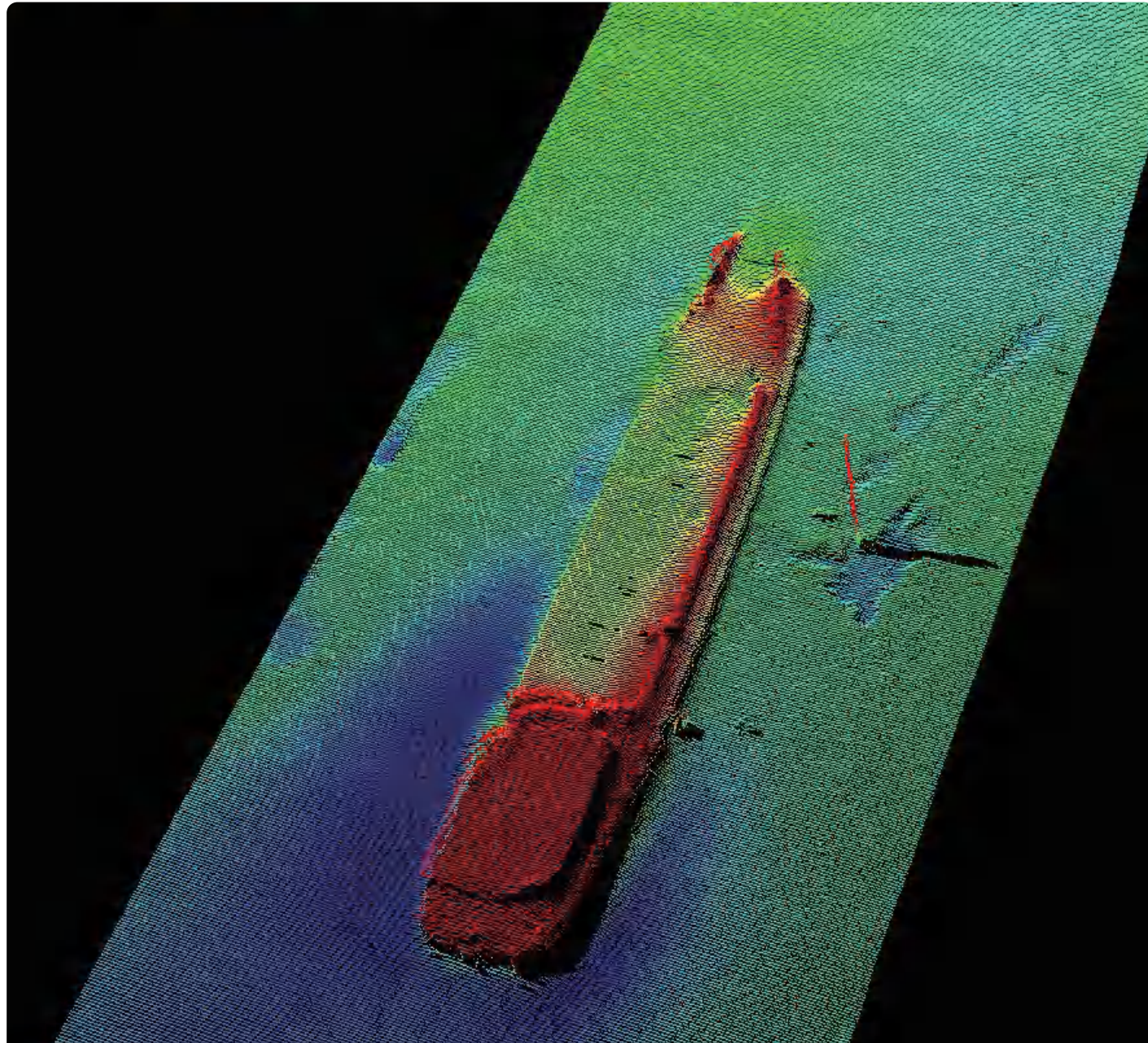
Oil & Mineral Exploration

Case Studies



Bridge Pier Scouring Condition Check

Case Studies



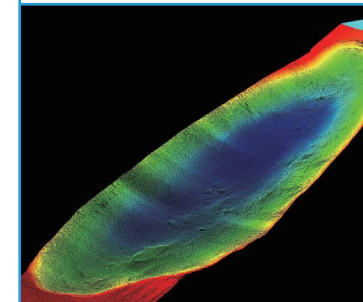
Shipwreck Detection



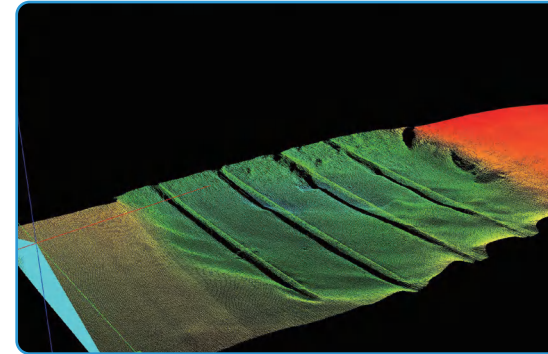
Case Studies



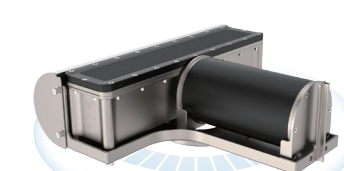
Shipwreck Detection



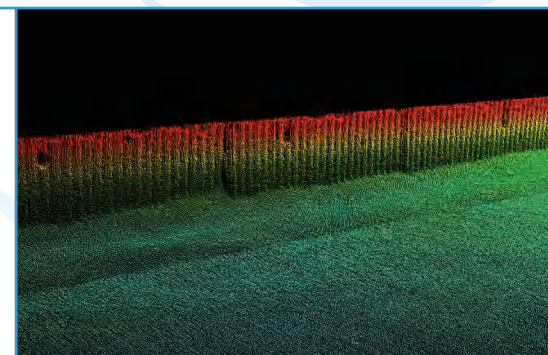
Ditch Condition Survey



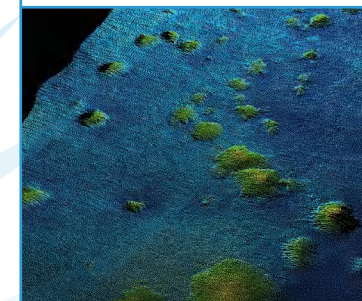
Water Pipe Detection



Anchor Trench Survey



Quay Wall Vertical
Structure Survey



Waterway Reef Survey