

WIDEBAND MULTIBEAM 3D&4D SONAR

For High Resolution 3D&4D Imagery

Introducing powerful, ultra compact and high-resolution multibeam sonar from NORBIT.

The WBMS series are the most compact sonars designed for use on all platforms. With approx 55W power consumption, the system is suitable to operate from any power source. NORBIT's wideband multibeam technology facilitates long range real-time data collection and at the same time achieves high resolution data in 3 dimensions. NORBIT uses rapid electronic scanning to combine proven 2D bathymetry into 3D georeferenced bathymetry and 4D experience.

The WBMS sonars are based on a state of the art analog and digital platform featuring powerful signal processing capabilities, offering roll stabilized bathymetry and several imagery and backscatter output. With broad R&D expertise NORBIT has developed, from the ground-up, exciting new technology that allows existing and new applications to benefit from the advantages offered by a compact wideband curved-array multibeam sonar.



Features

- ✓ Sub-centimeter Range Resolution
- ✓ FM & CW Processing
- ✓ Up to 80kHz Bandwidth
- ✓ Flexible Power Source (10-28 VDC, 100-240 VAC)
- ✓ Simple Ethernet Interface

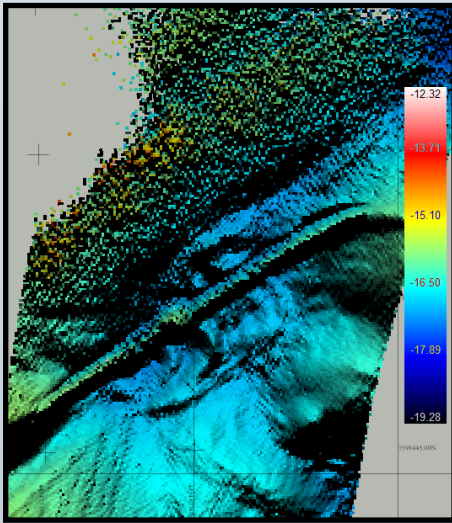
Applications

- ✓ 0.2 to 150m Range
- ✓ Harbor and Coastline Surveys
- ✓ USV, UUV, AUV & ROV Surveys
- ✓ MCM & Littoral Combat Zone Surveys
- ✓ Integrated Inertial Navigation Solution
- ✓ Horizontal Detection Sonar
- ✓ 3D Bathymetry

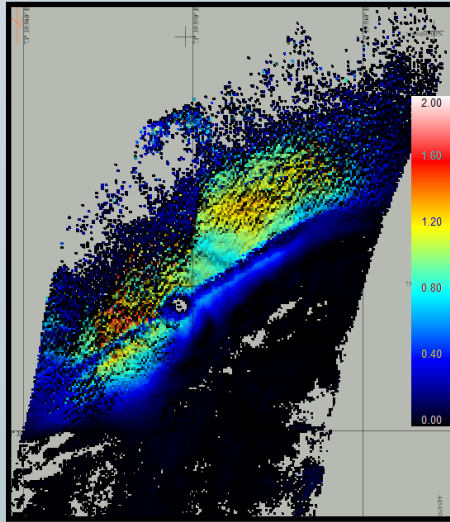
Options

- ✓ Motion Sensor
- ✓ Can be Delivered with all Major Software Packages e.g. HYPACK, QINSy, EIVA, CARIS and Others
- ✓ Support for Training and Installation
- ✓ VDSL Data Link, for Long Range Telemetry
- ✓ Integrated Sound Speed Probe

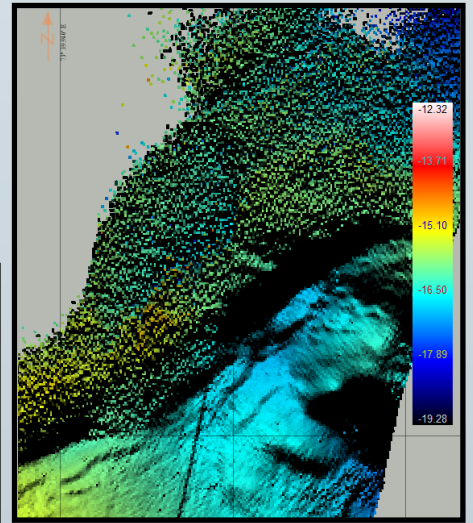
NORBIT Wideband Multibeam Sonar For High Resolution 3D Imagery



The image shows the dumping area before operation starts



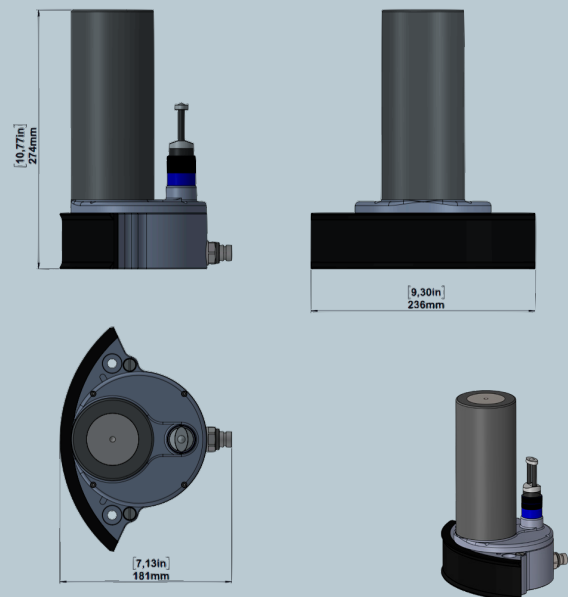
This image shows the original run (left image) subtracted from the real-time bathymetry (right image), thus total amount of the dumped material.



The image shows the dumping area after operation is complete, the long object is covered with rocks.

TECHNICAL SPECIFICATIONS

SWATH COVERAGE	5-210° FLEXIBLE SECTOR
RANGE RESOLUTION	<10mm (ACOUSTIC)
NUMBER OF BEAMS	256-512
OPERATING FREQUENCY	NOMINAL FREQUENCY 400kHz (FREQUENCY AGILITY 200-700kHz)
PING RATE	UP TO 60Hz, ADAPTIVE
DEPTH RANGE	0.2-275m (160m TYPICAL)
RESOLUTION	0.9° HOR, 0.9° VER @400kHz.
WEIGHT	5.2kg(AIR), 2.5kg(WATER)
POWER CONSUMPTION	50W (65W MAX)
VOLTAGE	10-28VDC or 100-240VAC (ROV DIRECT: 22-29VDC)
INTERFACE	100Mb/s ETHERNET
STANDARD CABLE LENGTH	8m, OPTIONS: 25m, PIGTAIL, MAX 600m VDSL, FIBER
MAX WATER DEPTH	100m, OPTIONAL DEEPER WATER SYSTEM 4500m DEEP WATER (>100m) DESIGNED FOR UP TO 7m/s VEHICLE SPEED
OPERATING TEMPERATURE	-4°C to +40°C (TOPSIDE -20°C to +55°C)
STORAGE TEMPERATURE	-20°C to +60°C



Part #12003