

NORBIT - iWBMS Ekinox, Long Range Turnkey Multibeam Sonar System with Narrow Along Track Resolution

High-resolution curved-array bathymetric mapping system from NORBIT.

This all-in-one tightly integrated broadband multibeam turnkey solution offers high resolution bathymetry over a wide swath. The high-end sonar with globally leading GNSS/Inertial Navigation System (SBG Ekinox) embedded into the unit ensures fast and reliable mobilization and highest quality sounding for most conditions.

The iWBMS is an ideal choice for waterway bathymetric surveys; it may be mobilised on any vessel of opportunity and offers streamlined operability and good performance to match budget and project requirements. Additionally, the kit provides the industry's highest resolution multibeam side-scan and snippets for wide swath shallow water applications. The WBMS sonars are based on a state of the art analogue and digital platform featuring powerful signal processing capabilities, offering roll stabilised 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

- ✓ Multibeam Sonar with Integrated Inertial Navigation System & Integrated NTRIP Client
- ✓ 80kHz Bandwidth
- ✓ Roll-stabilisation
- ✓ Backscatter outputs (Intensity, Sidescan, Sidescan Snippets, Snippets, Water Column)
- ✓ Integrated NTRIP Client
- ✓ Simple Ethernet Interface
- ✓ Integrated Sound Velocity Probe
- ✓ Hydrodynamic Fairing
- ✓ FM & CW Processing
- ✓ Exceeds IHO *Special Order*, CHS *Exclusive Order* & USACE *New Work*

Applications

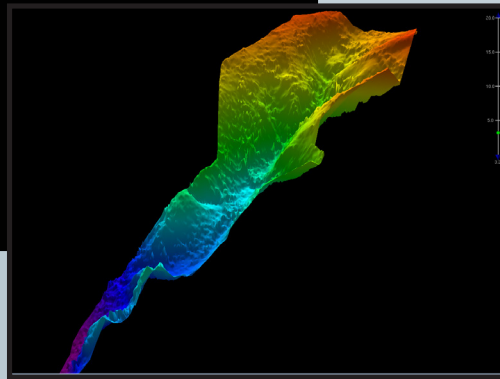
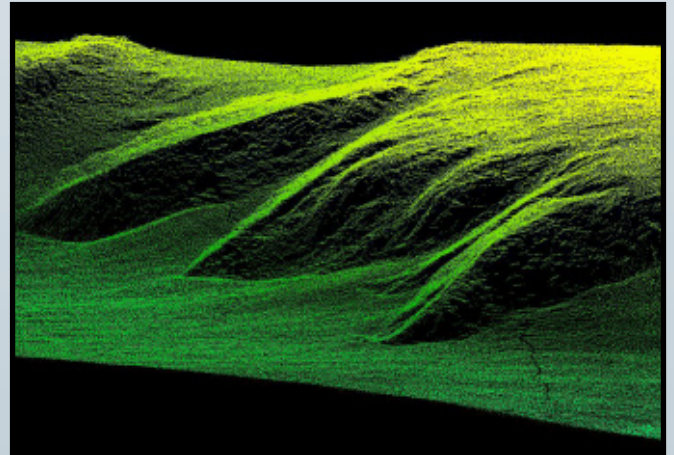
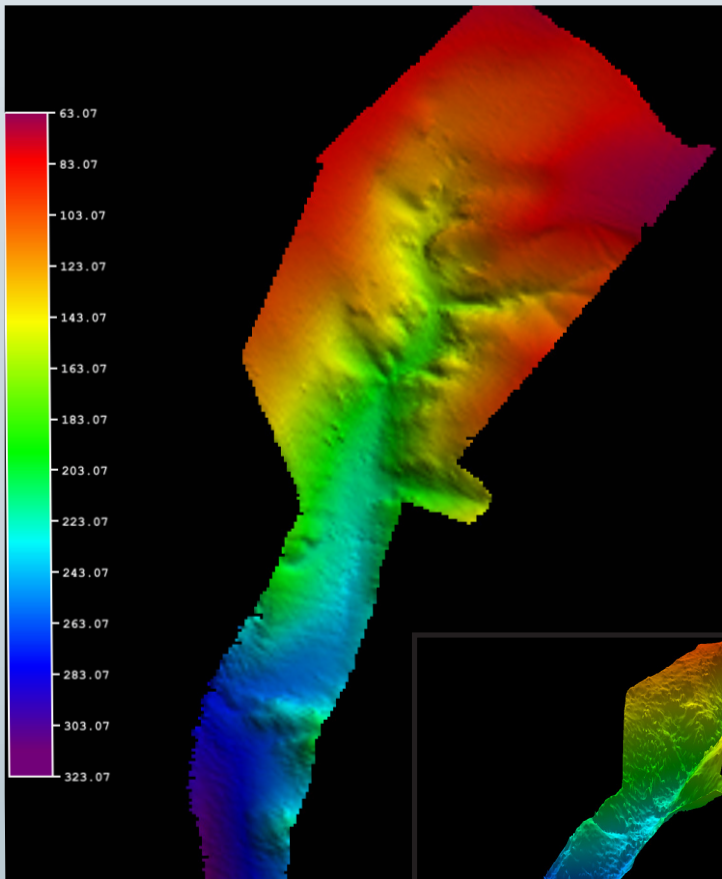
- ✓ Shallow Water Bathymetry
- ✓ Pipeline Surveys
- ✓ Pond, River and Estuary Surveys
- ✓ Harbor and Lake Surveys
- ✓ USV & UUV Ready
- ✓ High Resolution Multibeam-Sidescan

Options

- ✓ Senior Hydrographer for Support and Training
- ✓ Sound Velocity Profiler
- ✓ Laptop
- ✓ Turnkey Survey Solutions
- ✓ Hull and Pole Mount Options
- ✓ Field Upgradeable IMU
- ✓ 1024HDS
- ✓ Acquisition, Navigation and Post Processing Software
- ✓ Can Be Delivered with all Major Software Packages e.g. Q inertia, HYPACK, Qinsy, EIVA, CARIS, BeamworX and others

EXPERTS in sensor equipment providing telemetry and communication solutions for harsh environments. NORBIT develops and delivers innovative products - allowing you to explore more.

NORBIT Wideband Multibeam Sonar For High Resolution Bathymetry



TECHNICAL SPECIFICATION

SWATH COVERAGE	5-210° FLEXIBLE SECTOR (SHALLOW WATER IHO SPECIAL ORDER >155°)
RANGE RESOLUTION	6mm (ACOUSTIC W. 80KHZ BANDWIDTH)
NUMBER OF BEAMS	256-512 (1024HDS) EA & ED
OPERATING FREQUENCY	NOMINAL FREQUENCY 200kHz (FREQUENCY AGILITY: 160-420kHz)
DEPTH RANGE	0.2-600m
PING RATE	UP TO 60Hz, ADAPTIVE
RESOLUTION (ACROSS X ALONG)	1.8° X 1.8° @200kHz 0.9° X 0.9° @400kHz
POSITION	HOR: ±(10mm +0.5ppm X DISTANCE FROM RTK STATION) VER: ±(15mm +1ppm X DISTANCE FROM RTK STATION) (ASSUMES 1m GNSS SEPARATION)
HEADING ACCURACY	0.03° (RTK) DUAL ANTENNA GNSS (BASELINE 2m)
PITCH/ROLL ACCURACY	0.02° (RTK) INDEPENDENT OF ANTENNA SEPARATION
HEAVE ACCURACY	5cm OR 5% (REAL TIME)
WEIGHT	APPROX. 11kg (AIR), 7kg (WATER)
INTERFACE	ETHERNET
CABLE LENGTH	STD. 8m, OPTION: 2m, 25m AND 50m
POWER CONSUMPTION	60W (10-28VDC, 110-240VAC)
OPERATING TEMP.	-4°C TO +40°C (TOPSIDE -20°C TO +55°C)
STORAGE TEMP.	-20°C TO +60°C
ENVIRONMENTAL	TOPSIDE: IP67: DUST TIGHT, PROTECTED AGAINST THE EFFECT OF IMMERSION UP TO 1m/WET-END (SONAR): 100m

