

## NORBIT - iWBMS<sub>e</sub> Long Range Narrow Beam ENTRY-LEVEL TURNKEY MULTIBEAM SONAR SYSTEM

For Long Range Rapid Bathymetric Surveying in Protected Waters

Entry-level 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 (Applanix SurfMaster) embedded into the unit ensures fast and reliable mobilisation and highest quality sounding for most conditions.

The iWBMS<sub>e</sub> 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 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. Supported by DCT (Data Collection Tool) for data acquisition.



### Features

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

### Applications

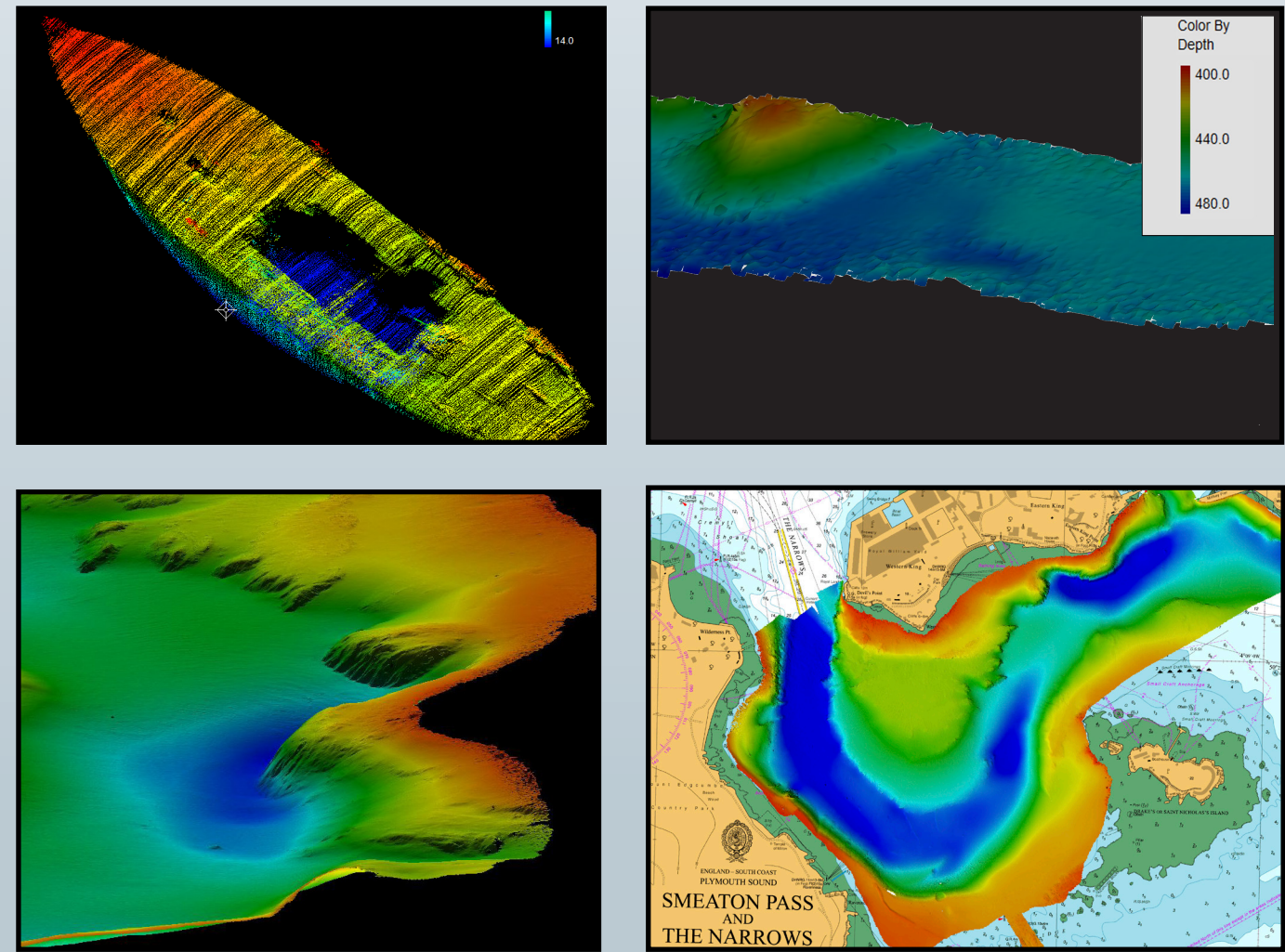
- ✓ Shallow Water Bathymetry
- ✓ Pipeline Surveys
- ✓ Pond, River and Estuary Surveys
- ✓ Harbor and Lake Surveys
- ✓ USV & UUV Ready
- ✓ High Resolution Multibeam-Sidescan

### Options

- ✓ Senior Hydrographer for Support and Training
- ✓ Sound Velocity Profiler
- ✓ Laptop
- ✓ Data Collection Tool (DCT)
- ✓ Turnkey Survey Solutions
- ✓ Hull and Pole Mount Options
- ✓ Acquisition, Navigation and Post Processing Software
- ✓ Can Be Delivered with all Major Software Packages e.g. DCT, HYPACK, Qinsy, EIVA, CARIS and others

# NORBIT iWBMSe Wideband Multibeam Sonar

## For Turnkey High Resolution Bathymetry



### TECHNICAL SPECIFICATION

SWATH COVERAGE	5-210° FLEXIBLE SECTOR (SHALLOW WATER IHO SPECIAL ORDER >155°)
RANGE RESOLUTION	<20mm at 200kHz and <10mm at 400kHz (ACOUSTIC w. 80kHz BANDWIDTH)
NUMBER OF BEAMS	256-512 EA & ED
OPERATING FREQUENCY	NOMINAL FREQUENCY 200kHz (FREQUENCY AGILITY: 160-400kHz)
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: ±(8mm +1ppm X DISTANCE FROM RTK STATION) VER: ±(15mm +1ppm X DISTANCE FROM RTK STATION) (ASSUMES 1m GNSS SEPARATION)
HEADING ACCURACY	0.08° (RTK) WITH 2m ANTENNA SEPARATION
PITCH/ROLL ACCURACY	0.03° INDEPENDENT OF ANTENNA SEPARATION
HEAVE ACCURACY	2 cm OR 2% (TRUEHEAVE™), 5 cm OR 5% (REAL TIME)
WEIGHT	APPROX. 11kg (AIR, 7kg (WATER)
INTERFACE	ETHERNET
CABLE LENGTH	STD. 8m, OPT: 2m, 25m AND 50m
POWER CONSUMPTION	55W (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: 100m