

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

For Long Range Rapid Bathymetric Surveying in Protected Waters

Introducing the all-new 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 mobilization and highest quality sounding for most conditions.

The iWBMS<sub>e</sub> is an ideal choice for waterway bathymetric surveys; it may be mobilized 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 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

- ✓ Multibeam Sonar Tightly Integrated with State of the Art GNSS-aided Inertial Navigation System (Applanix SurfMaster)
- ✓ 80kHz Bandwidth
- ✓ Roll-stabilisation, Side-scan, Water Column, Backscatter, Snippets
- ✓ Simple Ethernet Interface
- ✓ Integrated Sound Velocity Probe
- ✓ Hydrodynamic Fairing
- ✓ Mounting Bracket Included
- ✓ FM & CW Processing
- ✓ Flexible Power Option
- ✓ Exceeds IHO *Special Order*, CHS *Exclusive Order* & USACE *New Work*

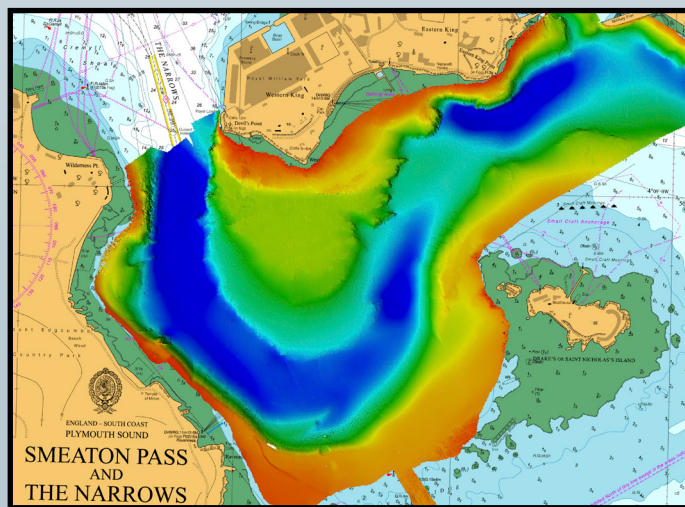
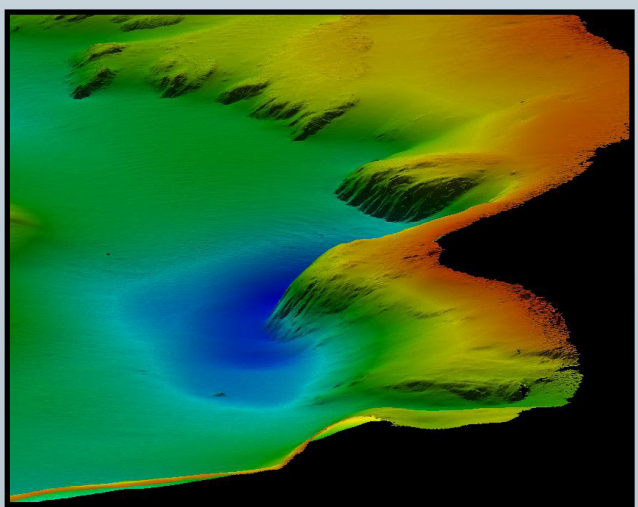
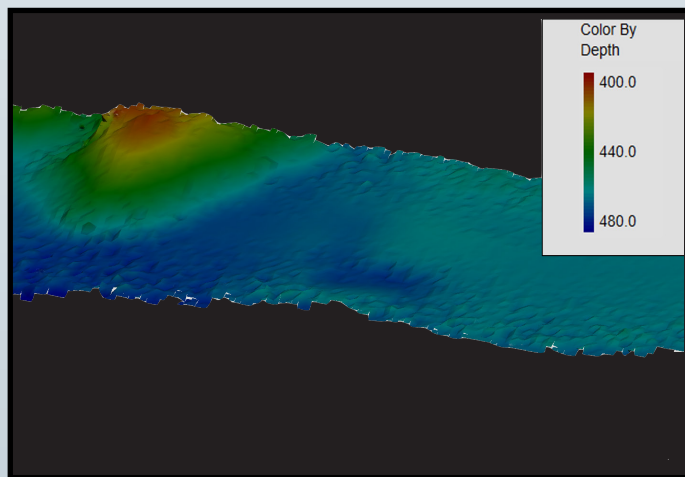
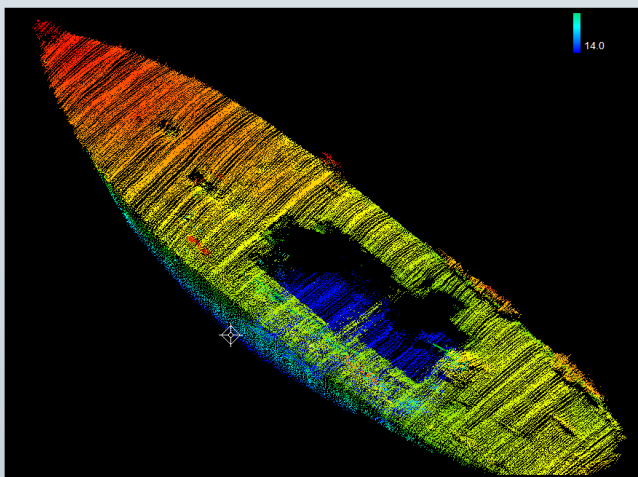
### Applications

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

### Options

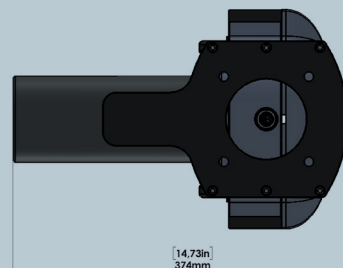
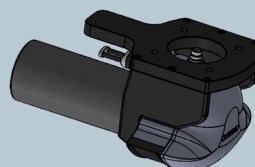
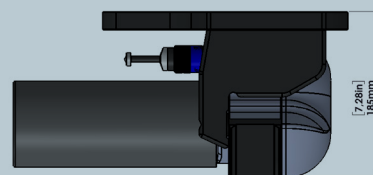
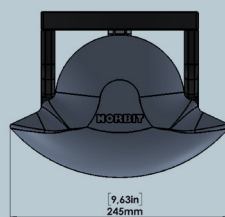
- ✓ Senior Hydrographer for Support and Training
- ✓ Sound Velocity Profiler
- ✓ Laptop
- ✓ Turnkey Survey Solutions
- ✓ Hull and Pole Mount Options
- ✓ Acquisition, Navigation and Post Processing Software
- ✓ Can Be Delivered with all Major Software Packages e.g. HYPACK, QINSy, EIVA, CARIS, PDS2000 and others

# NORBIT iWBMSe Wideband Multibeam Sonar For Turnkey High Resolution Bathymetry



## TECHNICAL SPECIFICATION

|                                |                                                                                                                                 |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| SWATH COVERAGE                 | 5-210° FLEXIBLE SECTOR<br>(SHALLOW WATER IHO SPECIAL ORDER >155°)                                                               |
| RANGE RESOLUTION               | <20mm at 200kHz and <10mm at 400kHz<br>(ACOUSTIC w. 80kHz BANDWIDTH)                                                            |
| NUMBER OF BEAMS                | 256-512 EA & ED                                                                                                                 |
| OPERATING FREQUENCY            | NOMINAL FREQUENCY 200kHz<br>(FREQUENCY AGILITY: 160-400kHz)                                                                     |
| DEPTH RANGE                    | 0.2-600m                                                                                                                        |
| PING RATE                      | UP TO 60Hz, ADAPTIVE                                                                                                            |
| RESOLUTION<br>(ACROSS X ALONG) | 1.8° X 1.8° @200kHz<br>0.9° X 0.9° @400kHz                                                                                      |
| POSITION                       | HOR: ±(8mm +1ppm X DISTANCE FROM RTK STATION)<br>VER: ±(15mm +1ppm X DISTANCE FROM RTK STATION)<br>(ASSUMES 1m GNSS SEPARATION) |
| HEADING ACCURACY               | 0.08° (RTK) WITH 2m ANTENNA SEPARATION                                                                                          |
| PITCH/ROLL ACCURACY            | 0.03° INDEPENDENT OF ANTENNA SEPARATION                                                                                         |
| HEAVE ACCURACY                 | 5cm or 5% (2cm RTK)                                                                                                             |
| WEIGHT                         | APPROX. 11kg (AIR, 7kg (WATER)                                                                                                  |
| INTERFACE                      | ETHERNET                                                                                                                        |
| CABLE LENGTH                   | STD 8m, OPTIONS: 25m, PIGTAIL, CUSTOM UP TO 50m                                                                                 |
| POWER CONSUMPTION              | 60W (75W MAX) (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<br>EFFECT OF IMMERSION UP TO 1m/WET-END: 100m                                  |



Part #12006

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