

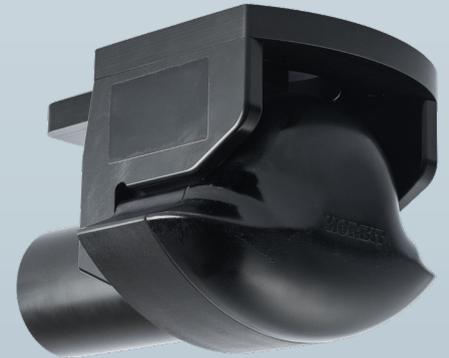
# NORBIT - iWBMS<sub>e</sub> ENTRY-LEVEL TURNKEY MULTIBEAM SONAR SYSTEM

For Rapid Bathymetric Surveying in Protected Waters

NORBIT 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 protected 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 sidescan 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 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.



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, Sidescan, Water Column, Backscatter, Snippets & Multidetect
- ✓ Simple Ethernet Interface
- ✓ Integrated NTRIP Client
- ✓ 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*

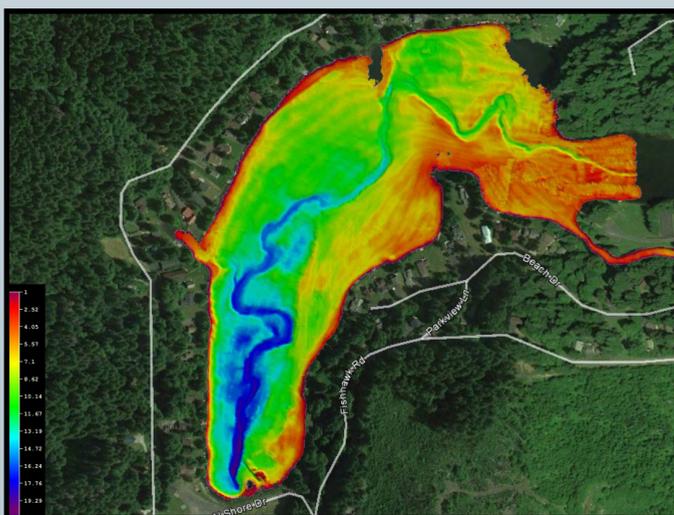
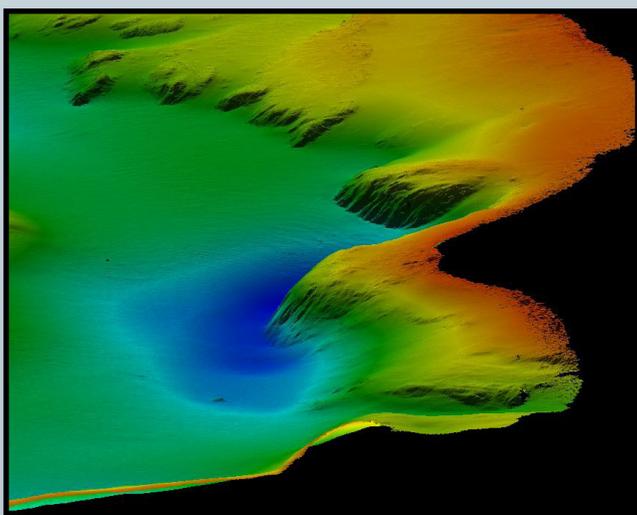
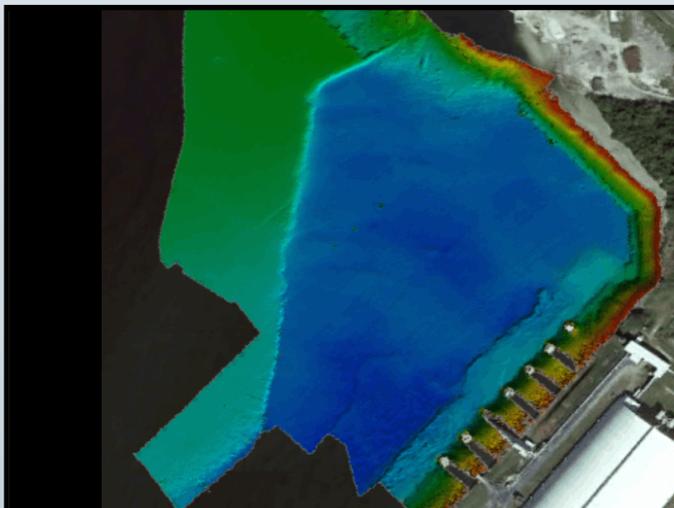
## Applications

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

## Options

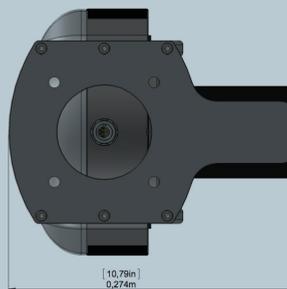
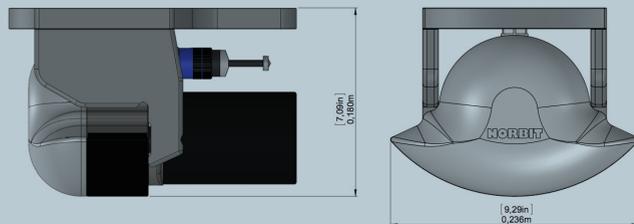
- ✓ Sound Velocity Profiler
- ✓ Recommended option: RTK or PPK software (also avail. as a service)
- ✓ 200kHz Version
- ✓ Turnkey Survey Solutions
- ✓ Hull and Pole Mount Options
- ✓ Narrow Beam Option
- ✓ Backscattering Strength Output
- ✓ Data Collection Tool (DCT)
- ✓ Acquisition, Navigation and Post Processing Software
- ✓ Can Be Delivered with 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<br>(SHALLOW WATER IHO SPECIAL ORDER >155°)   |
| RANGE RESOLUTION               | <10mm (ACOUSTIC w. 80kHz BANDWIDTH)   |
| NUMBER OF BEAMS                | 256-512 EA & ED   |
| OPERATING FREQUENCY            | NOMINAL FREQUENCY 400kHz<br>(FREQUENCY AGILITY 200-700kHz)  |
| DEPTH RANGE                    | 0.2-275m (160m TYPICAL @ 400kHz)  |
| PING RATE                      | UP TO 60Hz, ADAPTIVE  |
| RESOLUTION<br>(ACROSS X ALONG) | STANDARD: 0.9° X 1.9° @400kHz AND 0.5° X 1.0° @700kHz.<br>NARROW OPTION: 0.9° X 0.9° @400kHz AND 0.5° X 0.5° @700kHz            |
| 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                 | 2cm OR 2% (TRUEHEAVE™), 5cm OR 5% (REAL TIME)   |
| WEIGHT                         | 6.5kg (AIR), 2.4kg (WATER) WITH BRACKET<br>(LESS THAN 19KG WHEN PACKED IN PELICAN CASE)   |
| INTERFACE                      | ETHERNET  |
| CABLE LENGTH                   | STD 8m, OPTIONS: 2m, 25m, 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<br>OF IMMERSION UP TO 1m/WET-END (SONAR): 100m                          |



Part #12006-AACDB

