

NORBIT - iWBMS_c (COMPACT) WIDEBAND MULTIBEAM SONAR

With Tightly Integrated INS

Ultra compact and high-resolution curved array bathymetric system from NORBIT.

The 400kHz integrated multibeam solution offers high resolution in conjunction with the smallest possible tightly coupled INS/GNSS solution inertial navigation system for the most compact high resolution multibeam system. Having the inertial navigation system integrated into the sonar, ensures fast and reliable mobilisation.

The WBMS-series are based on a flexible sonar platform that utilises the latest in analogue and digital signal processing, and features a curved array. 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 Integrated with IMU and GPS
- ✓ State of the Art GNSS-aided Inertial Navigation System
- ✓ 80kHz Bandwidth
- ✓ Simple Ethernet Interface
- ✓ Integrated Sound Velocity Probe
- ✓ FM & CW Transmissions
- ✓ Backscatter outputs (Intensity, Sidescan, Sidescan Snippets, Snippets, Water Column)
- ✓ Exceeds IHO *Special Order*, CHS *Exclusive Order* & USACE *New Work*

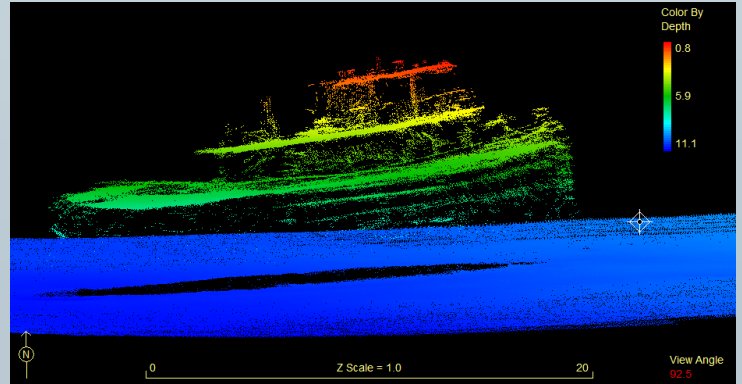
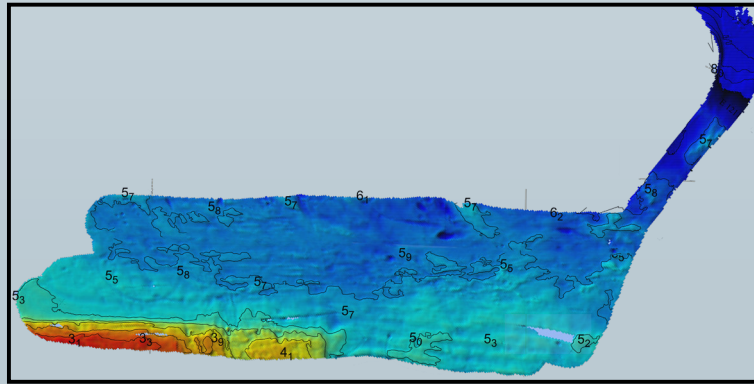
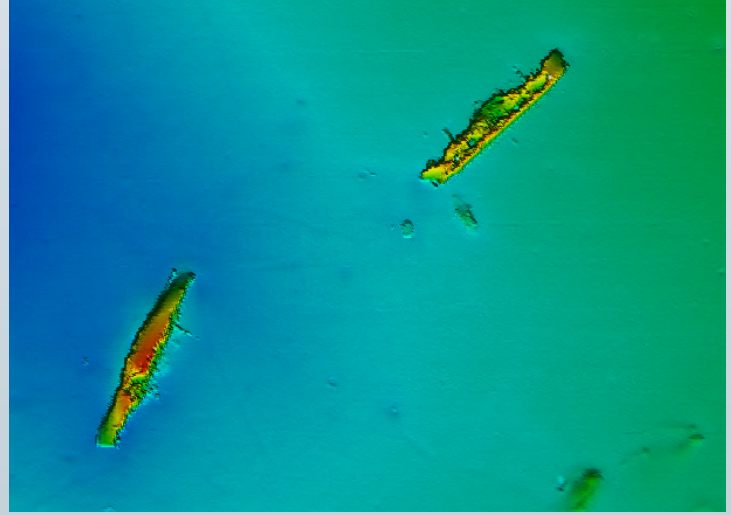
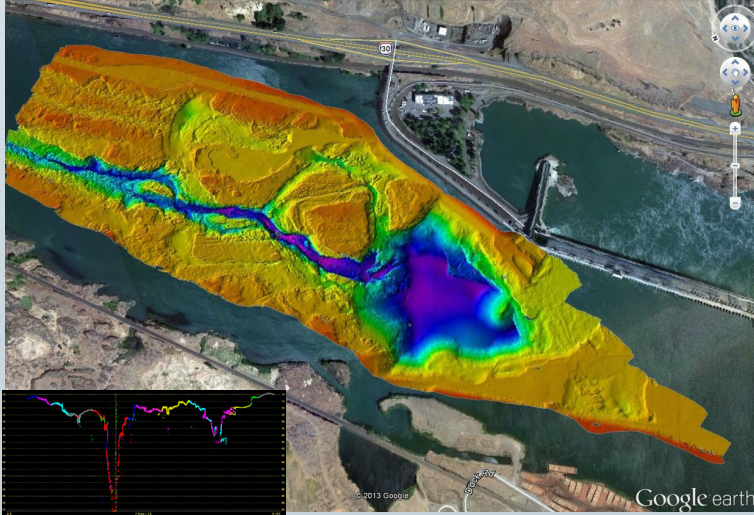
Applications

- ✓ Shallow Water Bathymetry
- ✓ Pipeline Surveys
- ✓ River, Estuary and Pond Surveys
- ✓ Harbor and Lake Surveys
- ✓ USV & UUV

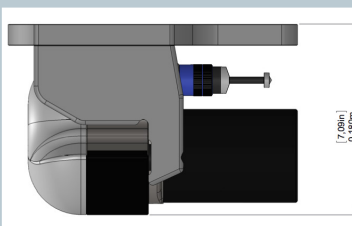
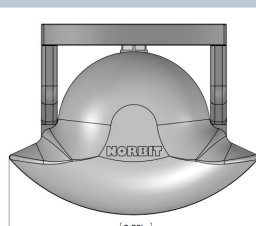
Options

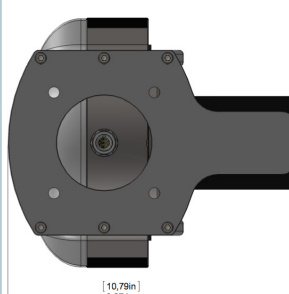

- ✓ Sound Velocity Profiler
- ✓ Turn-Key Survey Platform
- ✓ Laptop
- ✓ Permanent Hull Mount Option
- ✓ Pole Mount
- ✓ 200kHz Version
- ✓ Narrow Beam Option
- ✓ Acquisition, Navigation and Post Processing Software
- ✓ Senior Hydrographer for Support and Training
- ✓ Can be Delivered with all Major Software Packages e.g. HYPACK, Qinsy, EIVA, CARIS and Others

NORBIT Compact Wideband Multibeam Sonar With Tightly Integrated INS



TECHNICAL SPECIFICATIONS	
SWATH COVERAGE	5-210° FLEXIBLE SECTOR (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 (FREQUENCY AGILITY 200-700kHz)
DEPTH RANGE	0.2-275m (160m TYPICAL @ 400kHz) (>300m WITH 0.9° X 0.9° OPTION)
PING RATE	UP TO 60Hz, ADAPTIVE
RESOLUTION (ACROSS X ALONG)	STANDARD: 0.9° X 1.9° @400kHz AND 0.5° X 1.0° @700kHz. NARROW OPTION: 0.9° X 0.9° @400kHz AND 0.5° X 0.5° @700kHz
POSITION ACCURACY	0.02-0.1m (RTK)
HEADING RESOLUTION	0.03° (RTK) LONG BASELINE PP (0.08° SHORT BASELINE)
PITCH/ROLL ACCURACY	0.02° INDEPENDENT ON BASELINE
HEAVE ACCURACY	2 CM OR 2% (TRUEHEAVETM), 5 CM OR 5% (REAL TIME)
WEIGHT	APPROX 8kg (AIR), 5kg (WATER)
INTERFACE	100Mb/s ETHERNET
STANDARD CABLE LENGTH	STD 8m, OPTIONS: 2m, 25m, 50m
POWER CONSUMPTION	45W (65W MAX) (10-28VDC, 110-240VAC)
OPERATING TEMP.	-4° C to +40° C (TOPSIDE -25° C to +40° 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

Part #12005-AACDB4