

NORBIT - iSTX360 -TURNKEY SOLUTION FOR DREDGING MONITORING

stationary surveys with 360 deg coverage

Compact and high-resolution curved array FM bathymetric mapping system for stationary 360 Survey.

This all-in-one tightly integrated broadband multibeam turnkey solution offers high resolution bathymetry over a wide swath for all dredging applications. The high-end sonar with Applanix WaveMaster II (globally leading GNSS/INS system) embedded into the unit ensures fast and reliable mobilization and highest quality sounding for surveys in all conditions. The system is tightly integrated to a titanium rotating system ensuring a full 360 deg stationary high-end survey capability.

The WBMS-series are based on a flexible sonar platform that utilizes the latest in analogue and digital signal processing. 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

- ✓ State-Of-The-Art Curved Array Multibeam Sonar Tightly Integrated with High-end GNSS-aided Inertial Navigation System (Applanix WaveMaster II)
- ✓ 80kHz Bandwidth
- ✓ Backscatter outputs (Intensity, Sidescan, Snippets Sidescan, Snippets, Water Column)
- ✓ Multidetect
- ✓ Simple Ethernet Interface
- ✓ Integrated NTRIP Client
- ✓ Integrated Sound Velocity Probe
- ✓ FM & CW Processing
- ✓ Tightly Coupled to NORBIT Rotator
- ✓ Exceeds IHO *Special Order*, CHS *Exclusive Order* & USACE *New Work*

Applications

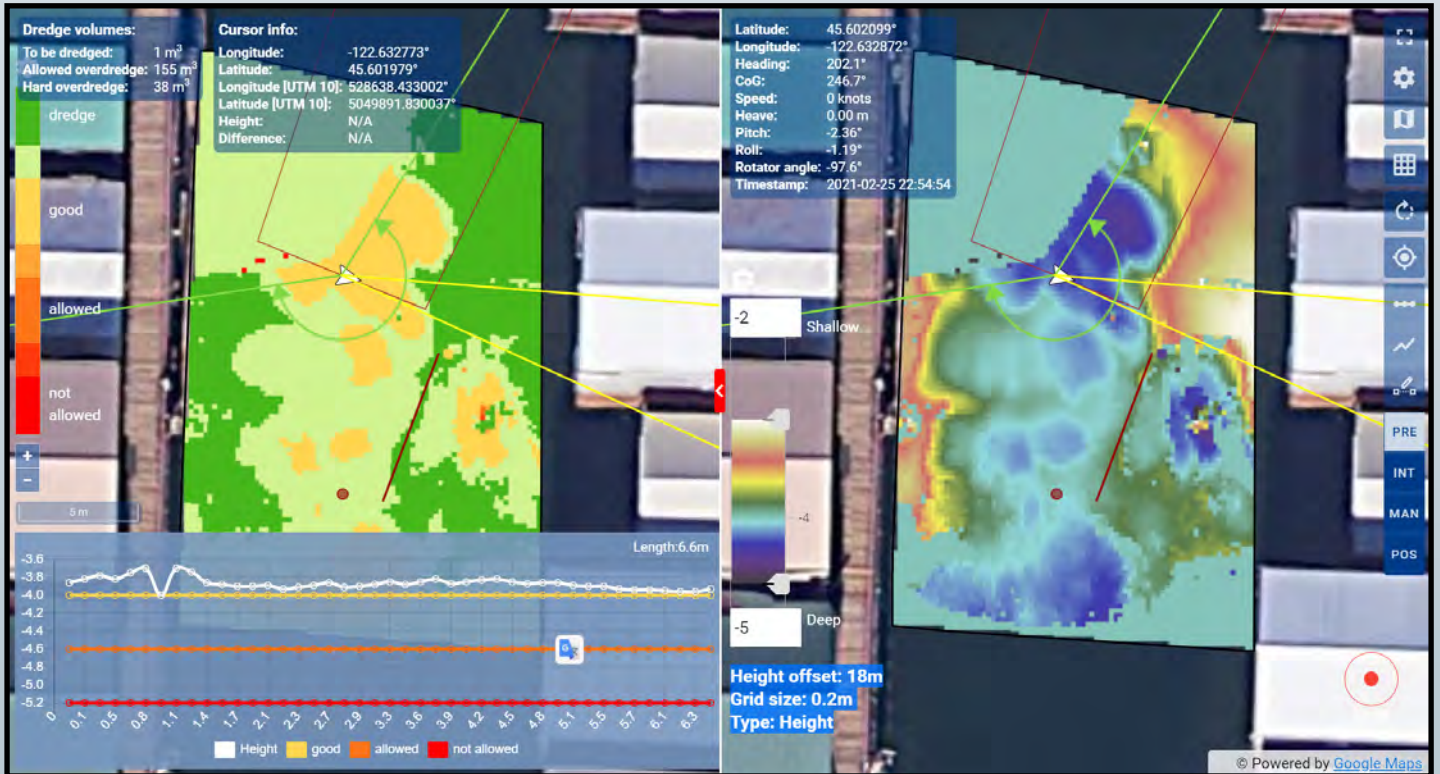
- ✓ Pipe Laying Survey
- ✓ Cable Laying Survey
- ✓ Construction Survey
- ✓ Rock Dumping Survey
- ✓ Dredge Monitoring/Survey
- ✓ Breakwater Construction
- ✓ ACCROPODE™ Placement

Options

- ✓ NORBIT Consolidated Dredging Monitoring Software (NORDredge)
- ✓ Turnkey Survey Solutions
- ✓ Pole Mount
- ✓ Top-end INS (Roll, Pitch & Heading 0.01 deg)
- ✓ Acquisition, Navigation and Post Processing Software
- ✓ Senior Hydrographer for Support and Training
- ✓ Sound Velocity Profiler
- ✓ Pre- and Pos- survey Support for Final Product Delivery
- ✓ Can be Delivered with Software Packages e.g. HYPACK, Qinsy, EIVA, CARIS and Others

NORBIT iSTX360 Solution

High Resolution 4D Bathymetry



TECHNICAL SPECIFICATION

SWATH COVERAGE	5-210° FLEXIBLE SECTOR (SHALLOW WATER IHO SPECIAL ORDER >155°) FULL 360° HORIZONTAL COVERAGE WITH ROTATOR
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
PING RATE	UP TO 60Hz, ADAPTIVE
RESOLUTION (ACROSS X ALONG)	0.9° X 0.9° @400kHz and 0.5° X 0.5° @700kHz
POSITION	HOR: ±(8mm +1ppm X DISTANCE FROM RTK STATION) VER: ±(15mm +1ppm X DISTANCE FROM RTK STATION) (ASSUMES 1m GNSS SEPARATION)
HEADING ACCURACY	0.03° (RTK) WITH 2m ANTENNA SEPARATION ROTATOR 16 BIT ACCURACY ABSOLUTE, +/- 0.005°
PITCH/ROLL ACCURACY	0.02° INDEPENDENT OF ANTENNA SEPARATION
HEAVE ACCURACY	2 cm OR 2% (TRUEHEAVE™), 5 cm OR 5% (REAL TIME)
WEIGHT	TOTAL WEIGHT IN AIR (SONAR & ROTATOR): 15.4kg
INTERFACE	ETHERNET
CABLE LENGTH	STD 25m OPT: 50m
POWER CONSUMPTION	80W (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

