WASSP-S Multibeam Sonar Specifications

MODEL WMB160-S	
Frequency	160kHz
Sonar	Single beam and triple beam
Number of Beams	224
Beamwidth	4° x 4° at 160kHz
Beam Spacing	Equi-distant or Equi-angular (120° @ 0.54° beams)
Transmit Beam Width (athwartships x fore-aft)	120° x 4°
Receive Beam Width (athwartships x fore-aft)	180° x 12°
Beam Forming	Roll stabilised digital - Dynamically focused receive beams
Swath Width	60° - 120°, user selectable
System Range	2-200m water depth, 300m+ slant range
Ping Rate	48Hz @ 10m slant range
Range/Depth Resolution	75mm
Pulse Length	Selectable, 0.1 to 2ms
Pulse Type	CW
Near-field Focusing	Not required
Pitch/Roll/Heave Stabilization	Yes (Accuracy based on sensors used)
Sound Speed Correction	Surface only
Rotate Sector	Fixed Transmit, Dynamic Receive
Automated Operation	Yes
Operating Temperature	0-40°C
Power Supply	24V DC
Power Consumption	90W
Uplink/Downlink	100Base-T (100MB) Ethernet (Up to 100m)
Deck Cable Length	10m and 20m standard, 5m option available
Transducer Type	Hull/Over-the-side, flush mountable
Transducer Dim (LxWxH)	327x164x94mm, integrated projector & receiver
Transducer Mass	7.5kg (15kg including deck cable)
BTxR Transceiver (LxWxD)	456x221.5x180mm
BTxR Transceiver Mass	10kg
Bottom Detection Method	Amplitude and Phase
Tide Correction	Prediction based on tide stations
External Sensor Inputs	Motion, Position, Heading
GPS Interfaces*	GGA, VTG, ZDA + Sensor
Data Products/WASSP GUI Displays	Bathymetry; Water column; Sidescan
Sensor Interfaces*	Furuno SC30; JRC JLR-20; CDL MiniSense; Kongsberg MRU; TSS1; POS MV V4; NMEA: GGA, GGL, RMC, ZDA, HDT, HDG, VTG, MTW
Outputs & Interfaces*	Raw data logging; GSF logging; WASSP Navigator (Realtime seafloor/water column mapping); HYPACK/HYSWEEP®; QINSy®

*Additional interface options can be configured on request to meet end-user requirements.
Prices and specifications subject to change without notice. Wassp Ltd does not take responsibility for the performance of third party software.

Front cover photograph courtesy of Ports of Auckland Ltd, New Zealand

WASSP international sales, service and support

WASSP is fully supported in the field by our international network of dealer service technicians.

For details of the WASSP dealer nearest you please go to our website – www.**wassp**.com.

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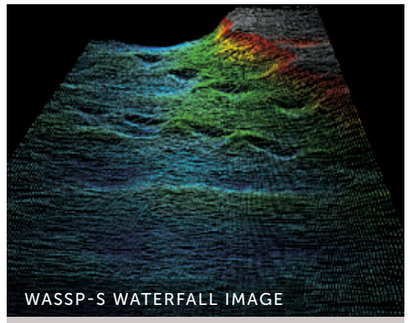
wassp® MULTIBEAM
WATER COLUMN AND SEAFLOOR SONAR
SURVEY (S)

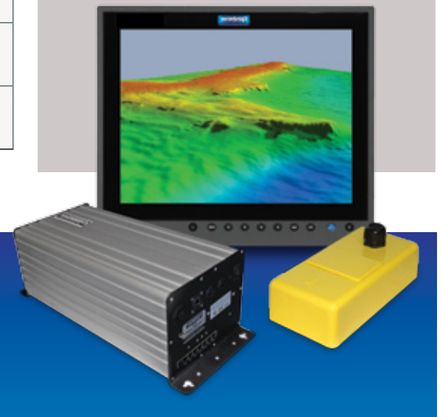


WASSP-S WATERFALL IMAGE

No other multibeam can match WASSP-S.

WASSP provides a proven multibeam platform that can be configured with the hydrographic software and sensors to meet your specific survey needs.

- Accurate motion stabilization – heave, pitch and roll
- Focus on high speed communication between the transceiver and WASSP PC allows more of the signal processing to be done in WASSP proven software environment, enabling enhanced data quality and interfaces for post processing
- Advanced signal processing techniques and broad dynamic range provide data quality that has to date only been available on systems costing at least three times the WASSP-S



wassp® MULTIBEAM
WATER COLUMN AND SEAFLOOR SONAR
SURVEY (S)

wassp® MULTIBEAM

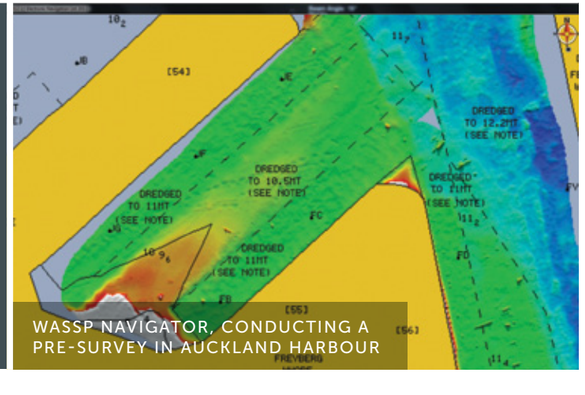
WATER COLUMN AND SEAFLOOR SONAR

SURVEY (S)

THE AFFORDABLE IHO COMPLIANT MULTIBEAM SONAR

‘ The WASSP Multibeam system has given us access to a first class shallow water survey tool, that was once cost prohibitive.’

ZANE THACKERAY, HYDROGRAPHIC SURVEYOR, DURBAN, SOUTH AFRICA.



WASSP NAVIGATOR, CONDUCTING A PRE-SURVEY IN AUCKLAND HARBOUR

WASSP-S for hydrographic survey and marine professionals.

The WASSP-S has been purposely developed to transform the multibeam market - to deliver an outstanding and versatile multibeam solution for an exceptionally low cost.

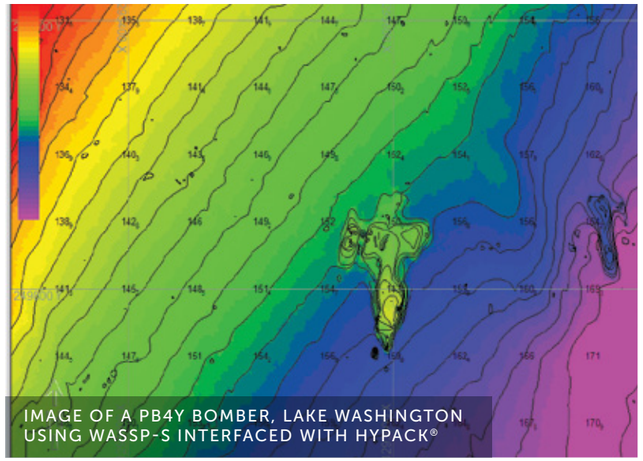
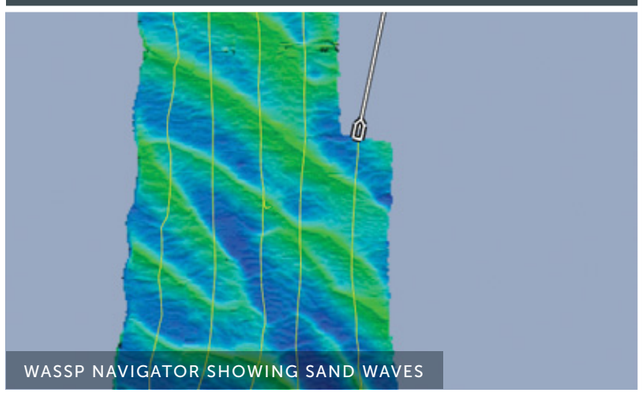


IMAGE OF A PB4Y BOMBER, LAKE WASHINGTON USING WASSP-S INTERFACED WITH HYPACK®

WASSP data is displayed in real-time, enabling you to make on the spot decisions. Instantly locate underwater debris or structures that might pose a hazard, and determine their precise size, shape and position.



WASSP NAVIGATOR SHOWING SAND WAVES

WASSP-S is a survey grade multibeam offering accuracy, reliability, and ease of use.

It is the ideal shallow water survey tool for:

- Seafloor mapping of wharves, harbours, waterways, foundations and shipping channels;
- Full seafloor search to detect obstructions, sub-sea equipment, scour and other features;
- Project condition and coastal engineering surveys;
- Dredging measurement and payment surveys[1];
- Water column analysis

WASSP-S offers a versatile platform that can be configured with sensors and software to match specific survey needs.

'Plug and Play' with QINSy® and HYPACK®

WASSP-S integrates seamlessly with leading hydrographic and dredging software suites, such as QINSy® and HYPACK®.

The WASSP-S has been evolved from a proven technology platform. The new WASSP-S features 224 beams per ping – switchable between equi-distant and equi-angular. What's more, the-S works with your existing sensors, and HYPACK or QINSy software, so there's no extra equipment to buy, or new software to learn.

1. Using appropriate software such as HYPACK/HYSWEEP® or QINSY®

Recording with WASSP Navigator 3D

NAVIGATOR displays and records real time 3D views of the bottom. Images can be rotated at different viewing angles, giving you a great deal of information without the need for data processing in the field.

WASSP Navigator offers a simple, user-friendly interface to display and record bathymetric and backscatter information, in real-time 2D/3D.

WASSP is designed to be quick to learn and simple to operate on the water, and there's no new software to learn.

WASSP-S hydrography software works fast, so you can too

WASSP's PC-Windows 7-based software runs automatically on a dedicated WASSP PC, supplied with the system. All functions are controlled by mouse.

The data captured by WASSP-S can be recorded for later analysis, and exported to third-party chart-plotting systems.

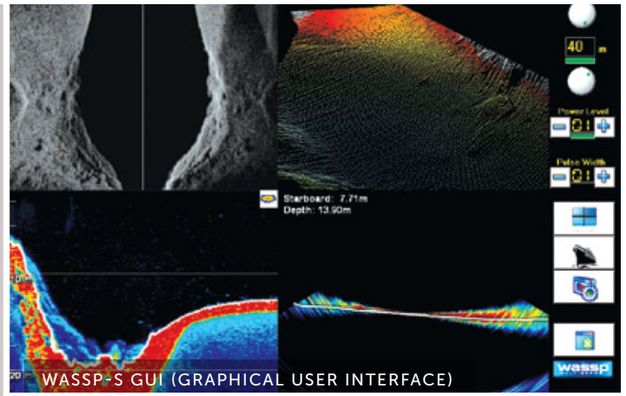
Plug and Play

The WASSP-S multibeam sonar is uncomplicated and self-contained, comprising three modules: The transducer, incorporating transmit and receive arrays, is connected to a signal processing box, called a BTxR. This is linked to a dedicated WASSP PC.

Pole or sea chest mounting*

WASSP sonar transducers are compact for pole mounting or permanently submerged in a sea chest, custom made to suit your vessel's hull. Your WASSP dealer has the expertise to manage a perfect multibeam sonar transducer installation for your boat.

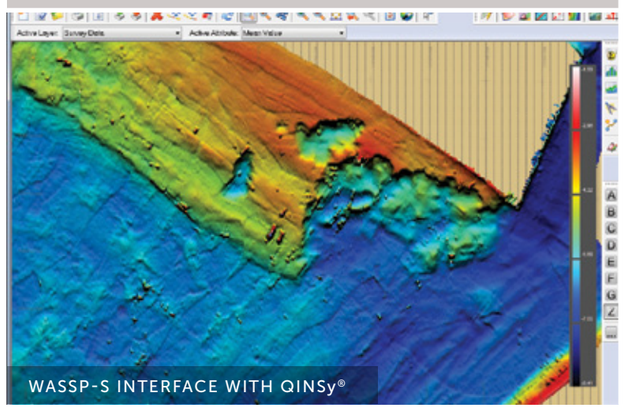
*Pole to be sourced locally



WASSP-S GUI (GRAPHICAL USER INTERFACE)

WASSP-S benefits at a glance:

- IHO Order 1a Compliant
- External senors to match the accuracy requirements
- Integrates with QINSy and HYPACK
- Compact transducer is ideal for pole mounting or flush mounting in hull
- High density 224 beam 160kHz transducer for work in 2m to 200m depth
- 120° coverage port to starboard
- Depth to coverage ratio of 1 to 3. At 100m coverage is 340m wide
- Continuous real-time 2D and 3D mapping
- Record and replay survey runs for analysis later.
- Easy to operate and quick to install.
- Stabilised for pitch, heave and roll. Compatible with GPS sensors.
- Multiple, selectable display modes.
- Software updates as new features and functions are added.



WASSP-S INTERFACE WITH QINSy®

Due to its ease of installation, WASSP Multibeam was used for survey reconaissance of the MV Rena grounded on the Astrolabe Reef in New Zealand. Within 48 hours of equipment delivery surveyors had located multiple submerged containers in depths of up to 80 metres.