MOBILE UNIT FOR SHALLOW WATER MULTIBEAM BATHYMETRY and SONAR IMAGERY

Survex 1
SURVEX: NEW DESIGN FOR POWERFUL MULTIBEAM BATHYMETRY
Standard version: Aluminium vessel length: 8.60 m Beam : 2.97 m Draft : 0.83 m Weight : 2 900 kg with Diesel 300 L and water 100 L Engine : Volvo Z drive 130 Cv Power : 240 V 4.5 kVA Heated cabin 3 to 5 people Noise level 80 dB à 10 knots 65 dB generator only Classified class 3 10 to 20 miles from point of safe haven

**SURVEX 1 MULTIBEAM ECHOSOUNDER:**
**RESON SeaBat 8101**

**MULTIBEAM** Acoustic echosounder, 240 KHz 150 to 210 ° swath : 4 to 6 times water depth and banks coverage.

Range 0.1 to 200m of water below sonar head Angular resolution:
1,5°x1,5° Depth resolution: 1.25 cm, including near field (circular array) Up to 40 cross profiles/second Simultaneous sidescan sonar or SNIPPETS imagery and bathymetry.

Multibeam sonar head RESON
SeaBat 8101, mounted on Survex1 (SMF Europe survey vessel)

Side scan sonar imagery

SURVEY

Shallow water bathymetric survey from 1 to 200m depth: harbors, channels, canals, lakes, rivers... Quays, pipelines, banks... 3D color display inspections Shipwreck search and identification: Sidescan sonar
/ SNIPPETS imagery (no towfish) Harbors channels control Beach profiles and sediment studies. Waterways network mapping. Periodic survey before / after dredging. Bathymetry fully corrected for vessel attitude, sound velocity profile and tide. Survey data available in various formats: XYZ, XTF.

Short versions

Survex is also available in 6.80 or 7.20 m length versions with outboard engines (2x60 HP yamaha)
The multibeam echosounder RESON SeaBat 8101 and other sensors (inertial navigator, heading/position, differential GPS or GPS-RTK, sound velocity RESON SVP 14 profiler, Valerport tide recorder...) operates with QUINSy 7.x software. A very high resolution and accurate bathymetry is produced: better than IHO “special order”.
The computer system on board is a P4 processor with 6 TFT 15” display units under Windows 2000.

A colored survey control is available on board : real time terrain model corrected from the vessel attitude with 0,01° accuracy.

Bathymetric maps, cross profiles, 3D models are produced at post processing.

REAL TIME SURVEY
QUALITY CONTROL
On the navigation window, the survey area is colored according to the depth measured. Accuracy of the bathymetry produced is controlled by continuity in real time of colored depth plotted. Any gap in the coverage is marked in white.

On the helmsman display, the echosounder is continuously available for navigation safety purpose.

Cross profiles resolution : 101 à 145 beams (150 to 210°)
Vessel carried all fitted and calibrated by road

Surveying in the hour after arrival on site. Differential GPS with 30 to 40 cm position accuracy with spot-beam blended with inertial navigator insures position and heading continuity. Water level accuracy 1 centimeter with digital tide recorder (Valeport 740).

**VERY HIGH DAILY COVERAGE RATE**

4 to 40 times faster than the traditional single beam echosounder (according to depth) 3 to 12 knots survey speed 15 knots transit speed 1 to 5 km² fully covered per day, according to depth (shallow water survey) and navigation speed. 5 to 30 km of canal covered per day (according to width and locks) 150 to 210° swath: a single survey line is enough to cover 30 m wide in rivers or canals with their banks, up to 50m wide with 4 to 5 m of water below sonar head.

No sensor installation on site (road transport fully equipped).
Reduces crew of 2 or 3 people (5 people allowed on board)
RESULTS:

Canals bathymetry:

HARBOUR BATHYMETRY:

Shaded DTM
Harbor bathymetry and Topography (Autocad)
SURVEX

MULTIBEAM BATHYMETRY MOBILE UNIT the best powerfull tool for your surveys

Mesuris survey vessels

ROV operation and special equipement on demand.
Mesuris SA, founded in 1993 by Alain Mouquet, produce survex Vessels designed by COMEX and Francois Lucas Naval Architect. 3 Survex vessels produced in 2003-2004 for use in France and UK.

Your dealer is:

Dansurvey
Baldershøj 26A
DK-2635 Ishøj
Denmark
Phone +45 45 35 45 85
Fax +45 45 35 45 86
mailto: info@dansurvey.com
www.dansurvey.com