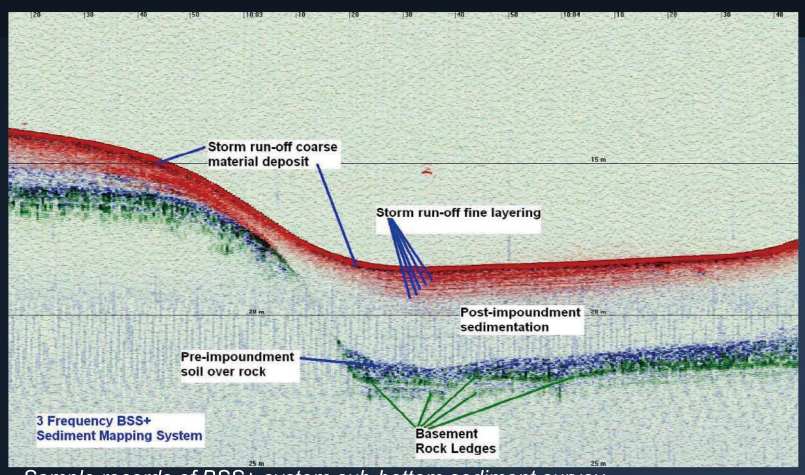
Benefits

- Sub-bottom sediment classification capabilities
- Customization of towfish depending on the application
- Portable and low power requirement (one 12V DC battery)
- Easy to install and operate
- Can operate in extreme shallow water environment (as shallow as 0.5-m depth)
- Compatible with SDI Vibecore for groundtruth

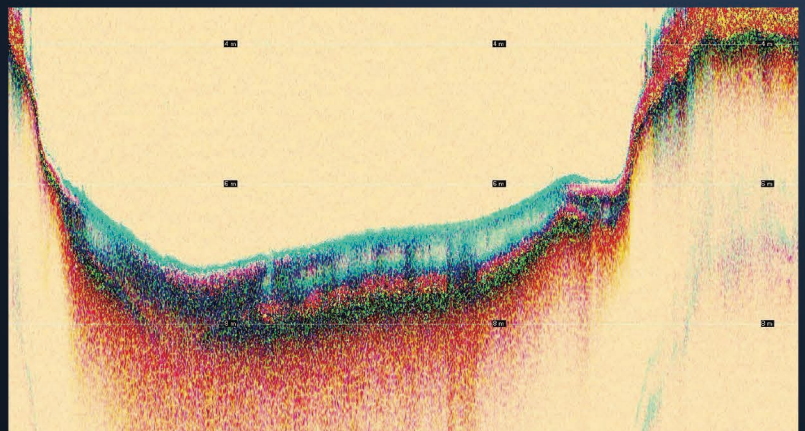
BSS+ Depth and Sediment Mapping System

New 5th Generation BSS + System

Sediment Mapping and Sub-Bottom Classification



Sample records of BSS+ system sub-bottom sediment survey



Multi-frequency BSS+5 record showing multiple types of sub-bottom materials

SDI's BSS+ is ideal for surveying and mapping sediment thickness and sediment type in shallow water throughout reservoirs, harbors, and waterways and for pre- and post-dredge applications. BSS+ is a simple-to--operate, complete hydrographic survey and sub-bottom profiling system contained in a single portable splash-proof unit. A dual frequency Side Scan Sonar is available to operate on the BSS+ simultaneously with the bathymetric and sub-bottom profiling. The system includes an Intelligent Depth Sounder (IDS), true wide--spectrum sub-bottom profiling capability, a GPS receiver, a navigation computer, a daylight-visible high--resolution display, survey software and rapid data playback and review software. The BSS+ sediment mapping is supplemented by SDI's Vibecore-D core sampler which can provide ground truth information for sediment type determination.

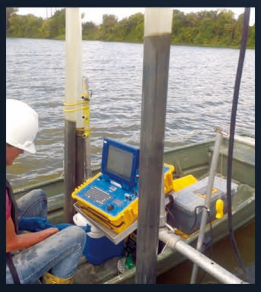
The resulting system provides unparalleled shallow water sediment surveying capability in a single portable device. Each of up to 5 frequencies is recorded and available for sediment classification determination. 65,536 shades of gray are digitized at up to 1 mHz sampling rate. The depth resolution is maintained regardless of the depth range.

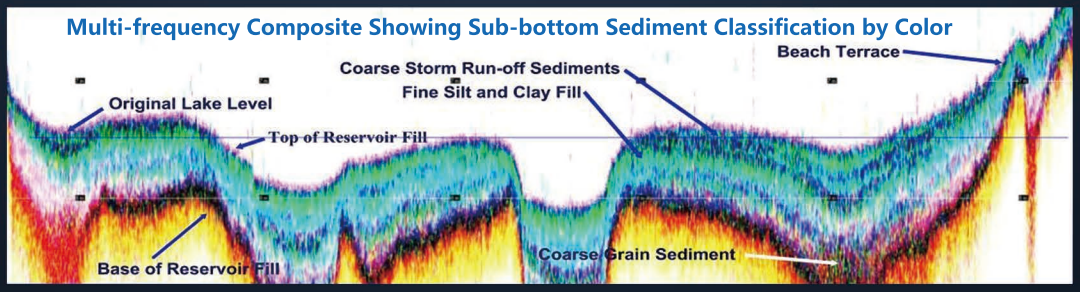
Specialty Devices, Inc.
www.specialtydevices.com

Address : 2905 Capital St., Wylie, Texas, USA. 75098
Ph : 972-429-7240 **Fax**: 972-429-7243 **Email**: PDHigley@SpecialtyDevices.com

SDI

The portable waterproof case and operation from a 12-volt car battery makes the BSS+ ideal for small boat operations. With the BSS+, a battery and a boat, you are ready to begin surveying. All survey and post-processing software is included.





SYSTEM SPECIFICATIONS

- **Minimum Operating Depth** 0.5 meter standard, 0.2 m optional with dual 200 kHz transducer
- **Maximum Operating Depth** 120 meter
- **Operating Frequency** Choose up to 5 operating frequencies from 200, 100, 50, 28, 24, 12 and 3.5 kHz
- **Beam Pattern** 9-degree standard, 3-degree optional (200 kHz)
- **Resolution** 0.75 cm to as little as 0.15 cm
- **Data Format** ASCII Text files compatible with HYPACK, SURFER, and GIS packages.
- **Weight in Air** 20 kg (BSS 3+), 42 kg (BSS 5+)
- **Dimension** 71cm x 24cm x 20cm (BSS 3+), 103 cm x 24cm x 20cm (BSS 5+)
- **Survey Software** SmartSurvey 2017 or optional HYPACK Software (SDI is a distributor for HYPACK software by HYPACK, Inc.)

COMPUTER SPECIFICATIONS

- **Operating System** Windows 10 64-bit
- **Hard Drive Capacity** 160GB solid state to optional 1 TB Hard Drives
- **CPU** Up to Intel i7 6600U
- **System Memory** Up to 16GB RAM
- **Keyboard/Mouse** Waterproof backlit tactile keyboard, waterproof joystick/ button pad
- **Ports** USB 3.0, Serial and optional Ethernet
- **Weight in Air** 15.5 kg
- **Size** 53 cm x 42 cm x 21 cm

GNSS SPECIFICATIONS

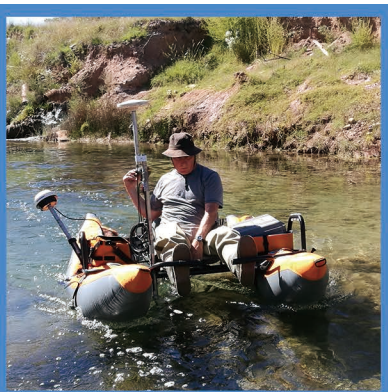
- **Receiver** Novatel or Trimble DGPS (user option).
- **Antenna** Basic configuration: GPS SBAS/WAAS (L1)
  Upgrade options: GPS (L1, L2, L5)
  GLONASS (L1, L2, L3)
  BeiDou(B1,B2)
  Galileo (E1,E5a/b)
- **Accuracy** Sub-meter standard, 1-2 cm Kinematic or 0.5 mm static with base station.

SOFTWARE

- **SMARTSURVEY** Data acquisition and in-the-field data analysis and replay
- **DEPTHPIC** Streamlined Full Echo Post-Processing Software with multiple Sub-bottom layer definition

BSS+system on an ROV

BSS+system on a SDI Jon boat



BSS+system on an inflatable SDI Pontoon boat