Year-round Reliable, Safe and Accurate Discharge Measurements

SYSTEMS

RiverSurveyor "Mini" System

Featuring a small 4" (10 cm) diameter transducer head and replaceable alkaline battery power, the Mini system is easy to move about and can mount over the side of any boat or platform. The reduced diameter head creates very little flow disturbance making it ideal for measurements in shallow rivers. Options include a pressure sensor for measuring the transducer depth in the water, internal recorder, integrated DGPS and integrated radio modems.

RiverCAT "Integrated Catamaran"

Compact: good for low flows Packs into a case for easy transport

The RiverCAT picks up where the Mini system leaves off by integrating a set of floating pontoons and a wireless two-way radio link into a single package. Weighing less than 25 lbs (12kgs), it can easily be tethered from bridges, or even towed behind small boats and kayaks.

Low profile: good for high-speed conditions

Select from any one of the pontoon options: rugged and compact aluminum hulls, two plastic pontoons for high flow applications or the trimaran for added stability under adverse conditions.

The ultimate performance in high flow conditions

Easily removable from the pontoons the RiverCAT electronics can be used on alternative platforms of your choice. A seamless integrated DGPS system (optional) makes the RIverCAT a complete package for bathymetric surveying.

RiverSurveyor 500 kHz system

Based on the traditional SonTek ADP platform, this model is best suited for deeper rivers that require lower acoustic frequencies or when users want the flexibility of using the ADP for either moving boat applications or autonomous deployments underwater.

The Standard ADP system features a pressure-rated aluminum casing and it easily mounts over the side of the boat. Options include pressure sensors, internal recorders, battery packs, and OceanScience Trimaran with integrated radio telemetry.

Quick and Easy

RiverSurveyor starts with an easy-to-use software package built from years of field experience. Just enter the maximum water depth into the software and you are ready to go! With a design philosophy based on ease-of-use and saving you time, most users can learn the basic measurement techniques quickly and without requiring extensive training.

Reliable

Utilize the versatility and robust nature of the ADP's processing power to collect valid data in the widest range of applications and conditions. No operational modes, just good data.

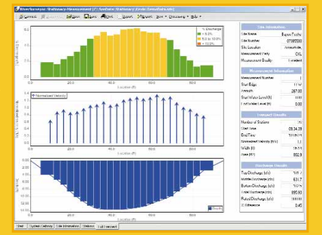
Integrate a DGPS and/or Echo Sounder unit with your RiverSurveyor system for a complete surveying package.

Quality

Professional quality summary reports are just a click away using the RiverSurveyor software. Customize the report to meet your organizational requirements or take advantage of the multi-language (Spanish, French, Italian and Portuguese) templates that come standard with the software. Both English and Metric units are supported.

SOFTWARE

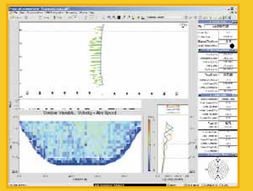
Stationary Measurements



The optional Stationary Measurement software now makes your RiverSurveyor system a more powerful and efficient discharge measurement tool by allowing you to use it reliably in places that traditional "moving-boat" applications are not possible. One-pass and you are done. Your results are processed and a discharge report printed in just a few clicks of the mouse. Now, that's simple, reliable and smart!

Using the USGS/ISO/WMO traditional "Mid-Section" method to compute discharge, the "Stationary Measurement Software" easily computes discharge in difficult river conditions that render most standard "moving-boat" measurements useless. Now you have an option that provides reliable and accurate results even in low flow, turbulent, moving-bed conditions or even under ice!

Moving Boat Measurements



Harness the full power of your RiverSurveyor system using our user-friendly moving boat measurement software to measure discharge or survey currents.

The software is as intuitive as possible for new users, while still providing advanced users with the flexibility they need.

A clear and concise step-by-step instrument setup procedure means that it only takes a few minutes from unpacking your system to collecting good data.

Integration of DGPS and Echo Sounder units with your system is a breeze. Just connect the unit to your computer and let the software do all the hard work for you.

Other features include:

- Navigation display and integrated waypoints
- Automated shallow water profiling to measure even more water
- Batch processing to summarize all your data instantly
- Built-in help features
- Automatic transducer depth measurement

RiverSurveyor/RiverCAT
Specifications

Velocity Data
- Range: ±10 m/s
- Resolution: 0.1 cm/s
- Accuracy: ±1 % of measured velocity, ±0.5 cm/s
- Up to 100 range cells

Frequency	Profiling Range Min - Max	Minimum Cell Size
500 kHz Standard	2.0 - 100 m (6.6 - 330 ft)	1.0 m (3.3 ft)
1.0 MHz Mini	0.75 - 35 m (2.5 - 115 ft)	0.25 m (0.8 ft)
1.5 MHz Mini	0.5 - 25 m (1.6 - 82 ft)	0.25 m (0.8 ft)
3 MHz Mini	0.3 - 6.0 m (1.0 - 20 ft)	0.15 m (0.5 ft)

Nominal range can vary depending on environmental conditions

RiverSurveyor Hardware Features
- SonTek ADP (Acoustic Doppler Profiler)
- Robust digital signal processing with 8-bit A/D conversion
- Compass/tilt sensor
- Temperature sensor
- RS-232 serial interface

RiverSurveyor Software Features
- Windows 2000/NT/XP compatible
- Bottom-tracking (independent of GPS)
- DGPS interface
- Real-time discharge calculation
- Discharge measurement options for unmeasured areas
- Discharge summary output file
- Vessel track with velocity vectors
- Bathymetric profile

Chinese National RiverCAT Training Course, Shanghai, China.

RiverSurveyor/RiverCAT
Specifications

Optional Features
- Pressure sensor for transducer depth corrections (all configurations)
- Landmarks and navigation waypoints
- Summary reports
- Built-in recorder
- Four-beam transducer head (Standard system only)
- Tetherable OceanScience Trimaran (molded plastic) with battery power and radio telemetry (Standard system only)

RiverCAT Features
- 27" Aluminum catamaran (with case)
- Integrated, two-way, spread-spectrum radio modems
- Battery compartment with replaceable "C" cells (Mini only)
- Hard plastic shipping case with wheels

RiverCAT Options
- Integrated DGPS system via ADP electronics
- 40" molded plastic OceanScience Catamaran hulls

Under ice discharge measurements on the McKenzie River, Northwest Territories, Canada.

RiverSurveyor
Applications

RiverSurveyor has year-round applications in:
- Rivers and Open Channels
- Natural Streams
- Irrigation Channels
- Lakes and Reservoirs
- Under Ice
- Bathymetric Surveying

Designed by hydrologists, the RiverSurveyor software is simple to use and shows the data in the format you want. RiverSurveyor allows you to collect, and process your data while supporting many export and reporting formats.

The Mini-ADP system features a small 4" (10 cm) diameter head making it very easy to install over the side of small boats. Its small diameter creates minimal flow disturbance making it an ideal choice for shallow rivers.

The SonTek RiverCAT offers the ultimate solution. What would normally take several hours, heavy equipment, and several people can now be accomplished in a few minutes with minimal effort. The modular design of the RiverCAT enables it to be used on or off the provided catamaran. The optional DGPS makes it an ideal tool for operating in large rivers and lake/reservoir surveying.

SonTek
A YSI Environmental Company

Other Great Products From SonTek:

FlowTracker
Handheld Doppler current meter easily attaches to wading rods and features a built-in discharge calculation algorithm.

Argonaut-SW
Up looking Doppler flow sensor for natural streams, irrigation canals, and pipes/culverts.

Argonaut-SL
The world's leading instrument for monitoring flow and level from the side of an open channel.

Distributed By:

The RiverSurveyor is made in the USA.
RiverSurveyor Bro. 04/05, Rev. 3.

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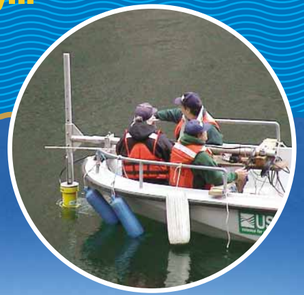
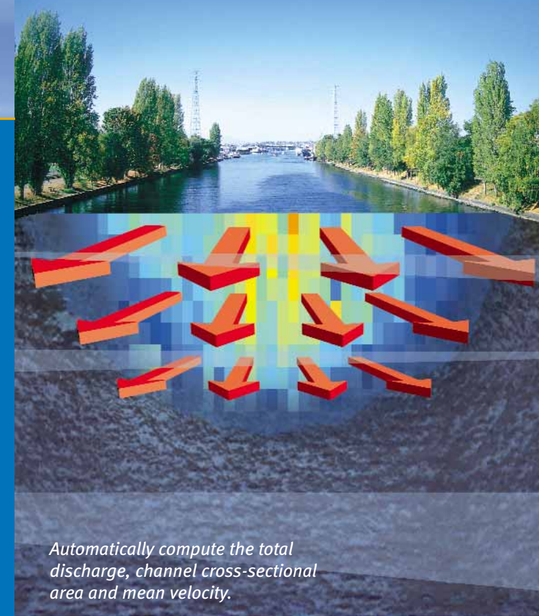
RiverSurveyor
Discharge Measurements Made Easy...



With the SonTek RiverSurveyor system, measuring flow in more places has never been easier.



Automatically compute the total discharge, channel cross-sectional area and mean velocity.

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THE WORLD LEADER FOR WATER VELOCITY MEASUREMENT
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