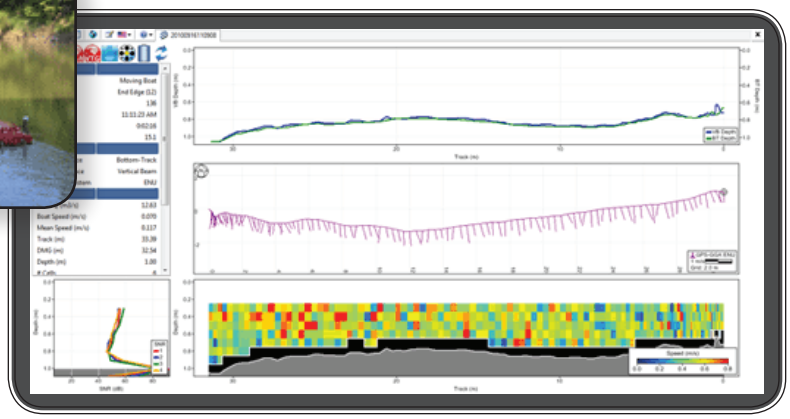
Teledyne Oceanscience

Discharge Measurements with **Oceanscience Q-Boats**

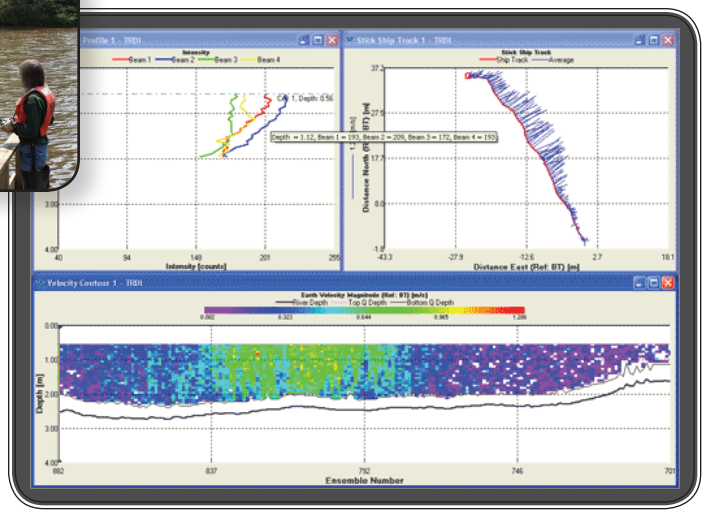
Oceanscience Q-Boats offer highly stable platforms for acoustic Doppler current profilers (ADCPs), with hulls designed to minimize pitch and roll even in high velocity conditions. On-board electrical systems create no instrument compass magnetic interference. The Q-Boat is therefore able to perform discharge measurements with similar or greater accuracy compared to other deployment methods such as a small tethered boat or a manned boat. Often used where no other measurement options are available, Q-Boats can be used in conditions ranging from shallow low velocity streams to fast flood waters

Measurement 1: SonTek M9 Profiler (Alabama, USA)



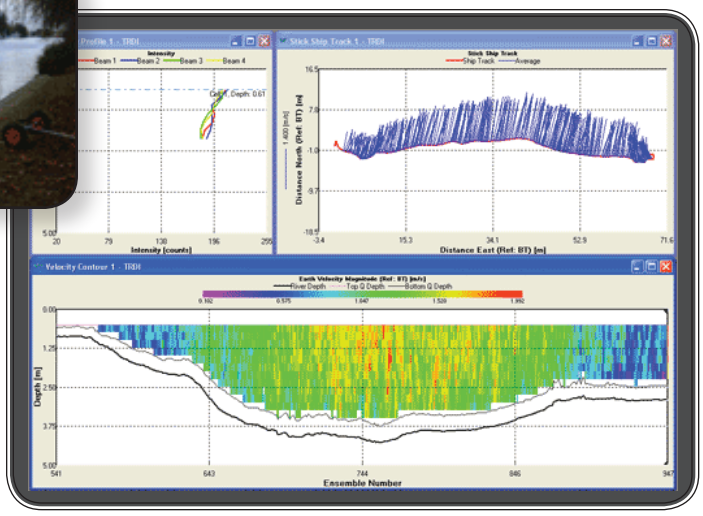
The transect at right shows data gathered using the SonTek M9 River Surveyor ADP in under 1 m water depth thanks to the very low draft of the Q-Boat 1800P. The easy-to-use remote control system allows a slow and steady boat speed, important at low water velocities.

Measurement 2: Teledyne RD Instruments Rio Grande Profiler (North Carolina, USA)



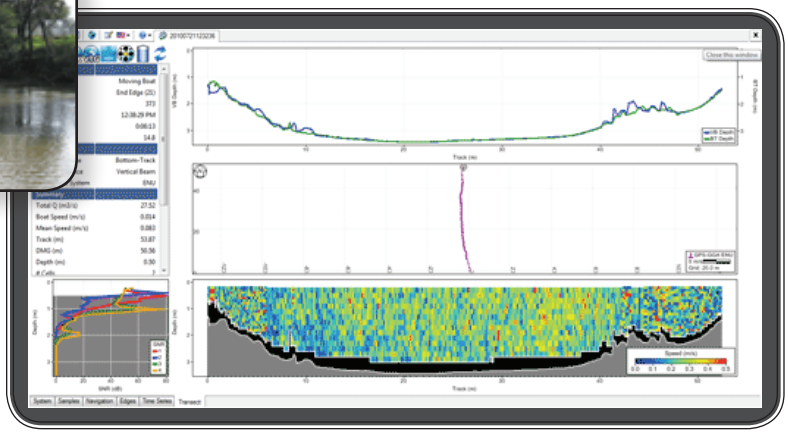
The Q-Boat 1800 may be outfitted for multiple acoustic Doppler profilers to allow different instruments to be used as conditions dictate. This measurement was taken using the Q-Boat 1800P with a Teledyne RD Instruments Rio Grande ADCP, including an integrated Trimble GPS installed to aid boat tracking if needed.

Measurement 3: **Teledyne RD Instruments Rio Grande Profiler (UK)**



To avoid setting up a tag line or having to conduct an unsafe bridge measurement using a tethered boat, the Q-Boat can be deployed from any convenient river bank. This is just what happened on the River Thames in the UK.

Measurement 4: **SonTek M9 Profiler (Australia)**



The Q-Boats are ideal for "ad-hoc" measurements in new locations, as shown below near Melbourne, Australia.

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