

Riverboat

Low-Drag Tethered ADCP Boat



The *Riverboat* is a rugged, stable, corrosion-resistant tethered boat for safe, easy measurement of discharge with ADCPs. Designed in 2000 for a U.S. government agency, Riverboats have drastically reduced discharge measurement time and labor all over the world.

The stable trimaran design produces accurate measurements by reducing pitch and roll. The central hull reduces drag by a factor of 2-4 over catamaran designs making the Riverboat capable of operation in very high flows. Tests at a US government tow tank indicated stability with low drag at towing speeds up to 16 fps. Our clients have reported successful field measurements at speeds of 15 fps.

The standard model fits a TRDI Rio Grande ADCP and includes single-channel spread spectrum modems, batteries, and antennae for easy plug-and-play operation. Electronics are located below deck in a watertight compartment. Additional instruments and accessories such as transport cases, GPS units, depth sounders, and the necessary data communication systems are available.

Features

- Proven low-drag trimaran design
- 3 year parts warranty on Polyethylene Hulls
- Waterproof in-hull electronics compartment
- Bow flare to prevent nose-diving
- Stainless steel safety lines
- Kick up fins for directional stability and safety

Construction

- Molded unbreakable Polyethylene Hulls
- Aluminum Hardware
- Stainless Fasteners

Dimensions

- Length: 48" (121 cm)
- Width: 32" (81 cm)

Weight Approx 15 lbs (7 kg)

Options

- 2-4 channel transceivers
- OysterPE field data computer
- GPS
- Depth sounder
- Collapsible, quick-deployment crossbar
- Hard and soft storage cases

Contact us for more information

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Riverboat Options and Instruments

| Part # | Product Name | Product Description |
|----------------|--------------------------------|---|
| RBHL | Riverboat | Rugged Polyethylene low-drag main and outrigger hulls, aluminum crossbar, ADCP mounting plate with fasteners, access cover to battery/modem compartment, wire rope bridle, power/comm. cable from electronics compartment to ADCP, power switch, and rugged stub antenna. The Riverboat is designed for use with an TRDI Rio Grande or similar compact profiler. (See Picture 1) |
| SCBR | Sliding Crossbar | Allows boat to fit in 52" x 18" x 18" hard case or soft case. Reassembles in seconds. (See Picture 2) |
| RIGB | Rigid Bridle | For reduction of pitch angle. Adjusts to four different attack angles. Available only with sliding crossbar. (See Picture 3) |
| PTCR | Portable Charger | Guest fully automatic 3-stage portable charger. |
| HCAS | Hard case | Wood and aluminum ATA-style box with stainless steel hardware and wheels. Recommended for boats with item #2. (See Picture 4) |
| SCAS | Soft case | 50" padded ballistic nylon zip-closure case with handles and wheels. Recommended for boats with item #2. (See Picture 5) |
| OSPE | OysterPE Field Data Computer | Four serial data ports for ADCP, GPS, Depthsounder or additional instrumentation; Two USB ports for data downloading, or adding a keyboard and mouse; 400 mW WiFi card for remote viewing of data from a shore-based WiFi-enabled laptop. Intel ULV Celeron Pentium M 1.6 GHz CPU, Chipset Intel 852 GM and Intel ICH 4, 12 VDC power, System memory: 4 GB CF hard drive 512MB DDR SDRAM, BIOS Phenix-Award PnP Flash BIOS, SSD 512KB Flash, Watchdog timer 225-Level reset, and a rugged water resistant 7.5 x 4.75 x 3.25 inch enclosure. (See Picture 6) |
| See price list | HydroLink SD and SL radio sets | Hydro link SD: 2.4GHz license-free single- channel transceivers set at 57600 bps. Hydrolink SL: 900 MHz or 2.4 GHz Freewave single- channel transceivers set at 115000 bps. |
| See price list | HydroLink ML Series | Hydrolink ML2, ML3 and ML4: 2-, 3-, or 4-channel transceivers in 900 MHz or 2.4 GHz Freewave 30 dB modems options. See Hydrolink specification sheet for details. (See sample in Picture 7) |
| GWIR | Boat Modifications for GPS | Boat hardware and wiring harness modifications required for GPS. Includes additional power and data cabling, and GPS antenna mount. |
| GPST | Trimble DSM232 GPS System | Trimble DSM232 GPS system. Includes satellite/beacon receiver, Everest multi-path rejection, 10 Hz update, WAAS and Omnistar - ready, antenna, and cable. Requires wiring harness modifications and transceivers. |
| DS235 | Depth Sounder | Depth sounders to meet all needs can be integrated into the Riverboat/Hydrolink system. (See sample in Picture 8) |
| STLT | Strobe Light | Strobe light with mount to crossbar. 3 mi visibility, white color. 4-day life on D-cell. Weight: 8 oz |
| RBFK | Spare fin kit | Two fins, three nylock screws and an allen wrench |
| MMTA | Magnetic mount antenna | Magnetic mount antenna with 10 foot cable for base station |
| MAXA | MaxRad Antenna | This new, shorter, rigid, and more powerful antenna eliminates the problem of the antenna being broken off when the boat is hand lowered off the side of a bridge. Available with new Riverboats or Polyethylene upgrades. |
| FG-PEU | Riverboat Hull Upgrade | Convert your existing fiberglass Riverboat to polyethylene hulls with rebuilt wiring harness, new crossbar and rope harness, and new kick-up fin system. This requires the return of your existing Riverboat to Oceanscience. |
| CCMP | Cable Chimp | Remote-control tug system designed to tow a mini acoustic Doppler boat across stream environments. Features: Five pounds (22 N) of pulling force, radio-control range of 330 feet (100 m), Lilon and NiMH rechargeable batteries, and waterproof case. |



Field Applications



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