



ORDERS ASSOCIATES RESEARCH SYSTEMS LLC

OCEANOGRAPHIC EQUIPMENT LEASING
 MOORING DESIGN AND CONSTRUCTION

EQUIPMENT LIST

Sunday, October 01, 2017

EQUIPMENT	#	DESCRIPTION	SETUP	MONTH	DAY
NEW! Hawkeye H22PX Handheld Fathometer	1	Battery operated (4AA) hand held fathometer. Range from 2.5 to 199 feet (.7 to 60.1 meters), temperature, waterproof to 200 feet for diver operation.	\$15	\$150	\$5
Current Meters					
TRDI StreamPro ADCP with float	1	Acoustic Doppler Current Profiler (multi bin) with float, for measuring currents in streams, irrigation canals, drainage ditches, and estuaries. Automatically ranges from 0.1 to 6 meters. Bluetooth connection.	\$225	\$3000	\$100
TRDI ChannelMaster 600 kHz Horizontal ADCP	1	Horizontal Acoustic Doppler Current Profiler (multi bin). 10-meter pressure sensor, vertical stage transducer. Measures currents horizontally across irrigation canals, streams, and rivers. 4 MB backup memory. 25 meter data/power cable. RS232 or SDI-12. Up to 90 meter range. Must be fixed mounted. Requires 12 VDC external power.	\$225	\$3300	\$110
WaterLog H-500XL SDI-12 Data Logger	1	For use with ChannelMaster HADCP or any SDI-12/Analog/Digital output sensor. 256 MB memory expandable with Compact Flash. Remote access via radio, cellular, or landline modem. Requires 12 VDC external power.	\$60	\$300	\$10

RDI RiverRay 600 kHz ADCP with Trimaran float and integrated GPS		Acoustic Doppler Current Profiler (multi bin) with float and GPS for measuring currents in rivers, streams, and estuaries. Automatically ranges from 0.4 to 100 meters. Can be fixed mounted or towed. 5 meter data/power cable or Bluetooth connection.	\$225	\$3600	\$120
RDI Workhorse 300 kHz Horizontal ADCP (HADCP, 300m)	1	Horizontal Acoustic Doppler Current Profiler (multi bin). 20-meter pressure sensor. Measures currents horizontally across bays and rivers. 1 gig memory standard. 5 meter data/power cable. Must be fixed mounted. 25 meter data/power cable (for logging to PC) and double external battery pack (for autonomous deployment) available (see below).	\$225	\$3300	\$110
RDI Workhorse Sentinel 300 kHz ADCP (150m) with Bottom Tracking and Waves Firmware	3	Self-contained Acoustic Doppler Current Profiler (multi bin). Bottom tracking, 200-meter pressure sensor, temperature, and tilt. Measures currents (directional wave spectra firmware/software available at an additional charge). 512 meg memory standard. 5 meter data/power cable. Can be used moored, bottom mounted, or vessel mounted. Bottom mounts, tension mooring frames, and double external battery pack available.	\$300 (Includes 1 28 D-cell battery pack)	\$3300	\$110
RDI Workhorse Sentinel 600 kHz ADCP (50m) with Bottom Tracking and Waves Firmware (1 with Water Modes 5, 8, and 11).	3	Self-contained Acoustic Doppler Current Profiler (multi bin). Bottom tracking, 50-meter pressure sensor, temperature, and tilt. Measures currents and directional wave spectra (firmware/software included). 512 meg memory standard. 5 meter data/power cable. Can be used moored, bottom mounted, or vessel mounted. Bottom mounts, tension mooring frames, and double external battery pack available.	\$300 (Includes 1 28 D-cell battery pack)	\$2850*	\$95
RDI Workhorse Sentinel 1200 kHz ADCP (20m) with Bottom Tracking and Waves	2	Self-contained Acoustic Doppler Current Profiler (multi bin). Bottom tracking, 20-meter pressure sensor, temperature, and tilt. Measures currents and directional wave spectra (firmware/software included). 512 meg memory standard. 5 meter data/power cable. Can be used moored, bottom mounted, or vessel mounted. Bottom mounts, tension mooring frames, and	\$300 (Includes 1 28 D-cell battery pack)	\$2550*	\$85

		double external battery pack available.			
RDI Workhorse Sentinel 1200 kHz ADCP with Bottom Tracking, Water Modes 1, 5, 8, 11, and 12.	1	Acoustic Doppler Current Profiler (multi bin). Water modes 1(standard), 5 (very slow/shallow), 8 (fast/shallow), 11 (slow/shallow), 12 (high rate pinging) Bottom tracking, temperature, and tilt. 512 meg memory standard. 5 meter data/power cable. Can be used moored, bottom mounted, or vessel mounted. Bottom mounts, tension mooring frames, and double external battery pack available.	\$300	\$3600	\$120
Double External Battery Pack for RDI Workhorse Sentinel ADCP	2	External housing holds 2 28-cell alkaline battery packs (included) in addition to the pack in the ADCP. "Y" adapter cable included.	\$300 (Includes 2 28 D-cell battery packs)	\$300	\$10
SUBS A2 ADCP Mount	4	Streamlined buoy system for all RDI Sentinel Workhorse ADCP. Uses 2 14" Viny floats (included)	\$30	\$300*	\$10
TRDI Sentinel bottom mount frame	3	Aluminum bottom mount frame for TRDI Sentinel. Does not include weights.	\$30	\$300*	\$10
RDI Workhorse Sentinel ADCP Data/Power cable	3	25 meter data/power cable for RDI Sentinel Workhorse ADCP. Cables may be hooked together for 50 meter overall length.	\$30	\$150*	\$5
InterOcean S4ADW (70m)	1	Solid state vector averaging current meter. Speed, direction, 70 meter pressure (4 mm resolution), temperature, conductivity, OBS and tilt. 20 meg memory. Adaptive directional wave measurement.	\$120 (\$400*** with lithium batteries)	\$2850*	\$95
InterOcean S4ADW (70m)	3	Solid state vector averaging current meter. Speed, direction, 70 meter pressure (4 mm resolution), temperature, conductivity, and tilt. 20 meg memory. Adaptive directional wave measurement.	\$120 (\$400*** with lithium batteries)	\$2550	\$85
InterOcean S4 (70m)	1	Solid state vector averaging current meter. Speed, direction, 70 meter pressure (4 mm resolution), temperature, conductivity.	\$120	\$2250	\$75

		128K memory.			
InterOcean S4 (1000m)	6	Solid state vector averaging current meters. Various configurations including speed, direction, 1000 meter pressure (6 cm resolution), conductivity, temperature, and tilt. 64K to 128K memory.	\$120	\$1500-\$1950	\$50-\$65
InterOcean S110A	6	S4 computer interface. Requires 12v DC or 110v AC	\$30**	\$150*	\$5
S4ADW Mounting Frame	1	Aluminum bottom mount frame for S4ADW	N/A	N/A	\$10
Wave/Tide Gauges		DESCRIPTION	SETUP	MONTH	DAY
SeaBird SBE26PLUS (20 meter)	2	45 psia Paros Digiquartz pressure sensor, temperature, 32 Meg memory, 12 D-Cell housing. Includes tide and wave processing software.	\$120	\$1800*	\$60
SeaBird SBE26 (20 meter)	1	45 psia Quartzonix pressure sensor, temperature, 8 Meg memory. Includes tide and wave processing software.	\$120	\$1800*	\$60
20 meter data/power cable	4	Allows real time monitoring or data recovery without retrieving SBE26	\$30	\$150	\$5
SeaBird SBE4 conductivity sensor.	2	Adds non-pumped conductivity to SBE26 above. Logs directly to SBE26/SBE26Plus. Mount and cable included.	\$30	\$300*	\$10
RDI Workhorse Sentinel 300 kHz ADCP (100m) with Bottom Tracking and Waves Firmware	2	Self-contained Acoustic Doppler Current Profiler (multi bin). Bottom tracking, 100-meter pressure sensor, temperature, and tilt. Measures currents and directional wave spectra (firmware/software included). 512 meg memory standard. 5 meter data/power cable. Can be used moored, bottom mounted, or vessel mounted. Bottom mounts, tension mooring frames, and double external battery pack available.	\$300 (includes 1 28 D-cell battery pack)	\$3300*	\$110
RDI Workhorse Sentinel 600 kHz ADCP (50m) with Bottom Tracking and Waves Firmware	3	Self-contained Acoustic Doppler Current Profiler (multi bin). Bottom tracking, 50-meter pressure sensor, temperature, and tilt. Measures currents and directional wave spectra (firmware/software included). 512 meg memory standard. 5 meter data/power cable. Can be used moored, bottom	\$300 (includes 1 28 D-cell battery pack)	\$2850*	\$95

		mounted, or vessel mounted. Bottom mounts, tension mooring frames, and double external battery pack available.			
RDI Workhorse Sentinel 1200 kHz ADCP (20m) with Bottom Tracking and Waves Firmware	2	Self-contained Acoustic Doppler Current Profiler (multi bin). Bottom tracking, 20-meter pressure sensor, temperature, and tilt. Measures currents and directional wave spectra (firmware/software included). 512 meg memory standard. 5 meter data/power cable. Can be used moored, bottom mounted, or vessel mounted. Bottom mounts, tension mooring frames, and double external battery pack available.	\$300 (Includes 1 28 D-cell battery pack)	\$2550*	\$85
InterOcean S4ADW (70m)	3	Solid state vector averaging current meter. Speed, direction, 70 meter pressure (4 mm resolution), temperature, conductivity, and tilt. 20 meg memory. Adaptive directional wave measurement.	\$120 (\$400*** with lithium batteries)	\$2550*	\$85
InterOcean S4ADW (70m)	1	Solid state vector averaging current meter. Speed, direction, 70 meter pressure (4 mm resolution), temperature, conductivity, OBS and tilt. 20 meg memory. Adaptive directional wave measurement.	\$120 (\$400*** with lithium batteries)	\$2850*	\$95
CTD Profilers and external sensors		DESCRIPTION	SETUP	MONTH	DAY
Sea-Bird SBE-19PlusV2 (3500m)	3	Pumped conductivity, temperature, 3500 meter pressure (5cm resolution), stainless steel protective cage. Internal or external recording. 64 meg memory. Can accommodate up to 6 external sensors (DO/OBS/pH/PAR/ORP/SCUFA)	\$120	\$2400	\$80
Sea-Bird SBE-19PlusV2 (3500m)	1	Pumped conductivity, temperature, 600 meter pressure (5cm resolution), stainless steel protective cage. Internal or external recording. 64 meg memory. Can accommodate up to 6 external sensors (DO/OBS/pH/PAR/ORP/SCUFA)	\$120	\$2400	\$80
Sea-Bird SBE-19Plus (3500m)	2	Pumped conductivity, temperature, 3500 meter pressure (5cm resolution), stainless steel protective cage. Internal or external recording. 8 meg memory. Can accommodate up to 4 external sensors	\$120	\$2400*	\$80

		(DO/OBS/pH/PAR/ORP/SCUFA)			
Sea-Bird SBE-43 DO Sensor	4	Pumped SBE DO sensor. Records directly to Sea-Bird SBE19 (above).	\$30	\$600	\$20
Sea-Bird SBE-18 pH/SBE-27 pH ORP Sensor	2	Range 0 to 14 pH, accuracy 0.1 pH, 1 second response time. Records directly to Sea-Bird SBE19 (above).	\$30	\$600*	\$20
Sea-Bird SBE-39 Temperature/Pressure Probe	1	600 meter pressure sensors (1.2 cm resolution), fast (0.5 second) temperature response, uses standard 9v alkaline or lithium battery, 150,00 records, only 2" x 14".	\$60	\$600*	\$20
Turner SCUFA Fluorometer for Chlorophyll A	1	Self contained underwater Fluorometer for Chlorophyll A with turbidity channel. Can be used with Sea-Bird SBE19 (above)	\$60	\$750*	\$25
Turner SCUFA Fluorometer for Rhodamine WT	5	Self contained underwater Fluorometer for Rhodamine WT with turbidity channel. Can be used with Sea-Bird SBE19 (above)	\$60	\$750	\$25
Biospherical PAR Sensor	1	Boispherical QSP2300L PAR sensor, 2000 meter. Records directly to Sea-Bird SBE19 (above).	\$60	\$600	\$20
Campbell Scientific OBS3+	3	Turbidity sensor Records directly to Sea-Bird SBE19 (above).	\$30	\$600	\$20
SeaBird SBE26/26Plus (20m, moored only)	3	45 psia Paros Digiquartz or Quartzonix pressure, temperature, conductivity, with tide and wave processing software, 8 to 32 Meg memory.	\$120	\$1800*	\$60
Fluorometers & Turbidity Sensors		DESCRIPTION	SETUP	MONTH	DAY
Turner SCUFA Fluorometer for Chlorophyll A	1	Self contained underwater Fluorometer for Chlorophyll A with turbidity channel. High capacity rechargeable Lithium Ion battery. Internally or externally recording. Can be used with Sea-Bird SBE19 (above)	\$60	\$750*	\$25
Turner SCUFA Fluorometer for Rhodamine WT	5	Self contained underwater Fluorometer for Rhodamine WT with turbidity channel. High capacity rechargeable Lithium Ion battery. Internally or externally recording.	\$60	\$750*	\$25

		Can be used with Sea-Bird SBE19 (above)			
Turner SCUFA Fluorometer Lithium Ion Battery	8	High capacity rechargeable Lithium Ion battery for use with Turner SCUFA Fluorometer for fully autonomous operation.	\$30	\$300*	\$10
Turner 50 meter data/power cable	3	Allows real time monitoring or data recovery without retrieving SCUFA. Requires 12 volt DC power	\$30	\$150*	\$5
Campbell Scientific OBS3+	3	Turbidity sensor can be used with SBE19 CTD (or user application)	\$30	\$600*	\$20
Campbell Scientific OBS3A	1	Stand alone turbidity sensor with 100 meter pressure and temperature. Requires 3 D-Cell alkaline batteries.	\$60	\$750	\$25
Transponders and Releases		DESCRIPTION	SETUP	MONTH	DAY
ORE (EdgeTech) 8242XS (6000m)	5	Acoustic Release/Transponder, 6000m depth rating, 5500 kg release rating.	\$180	\$900*	\$30
ORE (EdgeTech) 8242XS Tandem Mounting Kit	2	Allows two 8242XS Release/Transponders to be mounted in tandem such that triggering either will release the load. Maintains full working load rating of the 8242XS.	\$150	\$150*	\$5
ORE (EdgeTech) PORT (3500m)	5	Acoustic Release/Transponder, 3500m depth rating, 350 kg release rating.	\$240	\$900*	\$30
ORE (EdgeTech) PORT Tandem Mounting Kit	1	Allows two CART Release/Transponders to be mounted in tandem such that triggering either will release the load. Maintains full working load rating of the CART.	\$120	\$150	\$5
ORE (EdgeTech) 8011M (sends Benthos commands and receives replies)	1	Command/Ranging Deck Unit. Battery Powered. Sends commands and receives replies from most brands of releases (EdgeTech/ORE, Benthos, etc)	\$60	NA	\$80
ORE (EdgeTech) 8011AT	1	Command/Ranging Deck Unit. 115/230 VAC	\$60	NA	\$60
ORE (EdgeTech) 8011XS	1	Command/Ranging Deck Unit. Battery Powered	\$60	NA	\$35
ORE (EdgeTech)	1	Command/Ranging Deck Unit. Battery	\$60	NA	\$35

AMD200R		Powered			
FloTec Float Collar (1000m)	5	For 8242XS. +60 lbs. net buoyancy, 1000m depth.	\$30	NA	\$5
Benthos ALP365 Pinger	8	Water activated pinger. Adjustable frequency from 25 to 40 kHz. Output settings of 162, 168, or 174 dB. Ping rate settings 2Hz, 1Hz, or 0.5Hz. Operates on 2 9v alkaline or lithium batteries. Uses APL-275A Pinger Locator (below)	\$30	\$150	\$5
Benthos ALP275A Pinger Locator	1	Diver operated directional hydrophone pinger locator. Works with all Benthos/Datasonics/RJE and any pinger operating from 5 to 80 kHz. Rechargeable NMH battery. Includes charger and earphone.	\$30	NA	\$25
Water and Sediment Samplers		DESCRIPTION	SETUP	MONTH	DAY
6.2 Liter WildCo Alpha Horizontal Water Sampler	1	Clear acrylic 6.2 liter horizontal water sampler. Sampler, 100' line, and messenger, all in a handy carrying case.	\$15	NA	\$5
2.2 Liter WildCo Alpha Horizontal Water Sampler	1	Clear acrylic 2.2 liter horizontal water sampler. Sampler, 100' line, and messenger, all in a handy carrying case.	\$15	NA	\$5
10 Liter Niskin Bottle	6	10 liter OceanTest Equipment Niskin bottle rigged for either line use. 5 units use standard internal bungee, 5 units are rigged with external closure mechanisms for clean sampling.	\$15	\$150*	\$5
Brass Messenger	2	For use with the above bottles	NA	\$30*	\$1
Ponar Sediment Grab	1	9" x 9" (0.05 square meter) 8.2 liter stainless steel sediment grab.	\$30	\$600*	\$20
Petite Ponar Sediment Grab	1	6" x 6" (0.025 square meter) 2.4 liter stainless steel sediment grab	\$30	\$600*	\$20
20" Stainless Steel Hand Corer	1	20" Stainless Steel hand operated sediment corer. Uses standard plastic core liners or reusable stainless liner. Shore, diver, or dock/boat deployable using extension	\$30	\$600	\$20

		handles.			
Meter Wheels		DESCRIPTION	SETUP	MONTH	DAY
Kahl Scientific	2	Snatch block meter wheel for ¼” cable, rated for 10,000 lbs., 99,999 meter reversible counter.	\$30	N/A	\$5
Small meter wheel	1	Snatch block meter wheel for ¼” or ⅜” cable. 999 meter counter.	\$30	N/A	\$5
Portable Winches and Generators		DESCRIPTION	SETUP	MONTH	DAY
Deck Winch	1	Complete stand alone system. 2000lb capacity, 5hp Honda powerpack, 1100’ ¼” galvanized cable (2000’ capacity), adapters for ship hydraulics.	\$60	N/A	\$50
Honda EU2000i Generator	2	Lightweight, quiet, portable 2000 watt generator. 2 20 amp 110VAC outlets, one 12 volt DC outlet. Units can be used with combiner below for 30 amp 110VAC 3800 watt output	\$30	N/A	\$25
Honda EU2000i Combiner kit	1	Allows 2 Honda EU2000i generators to be run in parallel for 30 amp 110VAC 3800 watt output	\$30	NA	\$5
5KW Generator	1	110/220VAC, 8hp Honda engine. 4 110VAC outlets, 1 220VAC outlet	\$30	NA	\$50
Mooring kits		DESCRIPTION	SETUP	MONTH	DAY
Complete kit for building ¼” steel cable moorings	2	Nicopress tool for ¼” sleeves, cable cutter, quick release, 2 Klein cable grips.	N/A	N/A	\$25
McMillan SeaCatch TR7 quick release	1	Toggle release for anchors, frames, etc. up to 7000 lbs. Vertical or horizontal pull to release. Safety pin secures release in locked position to avoid accidental release.	\$30	N/A	\$5
Floatation/Frames		DESCRIPTION	SETUP	MONTH	DAY
InterOcean Aluminum Buoy	1	110 cm Aluminum Sub-Surface buoy. 500 lbs buoyancy, 3000 foot working depth.	\$30	\$300	\$10
McLane G6600 deepwater glass floats	4	3 10” glass spheres in a single plastic hard hat. 66 lbs buoyancy, 7000 meter depth rating. May be stacked for greater	\$30	\$150*	\$5

		buoyancy.			
SUBS A2 ADCP Mount	4	Streamlined buoy system for RDI Sentinel Workhorse ADCP. Uses 2 14" Viny floats (included)	\$30	\$300*	\$10
ADCP bottom/low current mount	4	Aluminum base plate for use in low current environments. Can be weighted and placed directly on the bottom, or used with 4 11" trawl floats for tension mooring (see photo)	\$30	\$300	\$10
S4ADW/RDI Sentinel bottom mount frame	4	Aluminum bottom mount frame for S4ADW/RDI Sentinel. Does not include weights.	\$30	\$300*	\$10
Center hole floats (300m)	26	14" Viny floats, +48 Lbs., 300 meter working depth	N/A	N/A	\$2
Center hole floats (500m)	42	11" trawl floats, +17 Lbs., 500 meter working depth	N/A	N/A	\$1

*Monthly rate is nominal. Clients will be billed at daily rate.

**No setup fee if leased with instrument.

***Estimated setup cost. Actual cost will vary depending on price and availability of lithium cells.