



SYNERGY
POSITIONING SYSTEMS

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The Next Generation solution for unmanned hydrographic surveying.

CEE-USV™ is a state of the art, high-performance survey boat incorporating a single beam echo sounder, GNSS positioning, live video, and on-board data management. A high bandwidth radio link to the dedicated CEE-LINK™ shore station allows the operator to record precise bathymetric survey results in real time with the minimum of mobilization effort and maximum productivity.

CEE-USV™ is ideal for surveys in challenging environments such as high velocity or shallow water river cross sections, industrial and contaminated effluent water, or bridge scour monitoring. As soon as the USV is powered-up, survey data are available on the shore for acquisition. The integrated CEE HydroSystems CEESCOPE™ hydrographic instrumentation presents an industry-leading simplicity of operation. Coupled with the unique benefits of a collapsible super-rugged vehicle, the CEE-USV™ presents the next generation USV solution.

Vehicle Specifications:

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|---------------|---------------------------------------|
| Length: | 1.95 m (77"), 1.2 m (47") bow removed |
| Beam: | 0.72 m (28") |
| Draft: | 0.18 m (7") |
| Total weight: | 48 kg (105 lbs) |
| Speed: | 10 kts (5 m/s, 17 ft/s) |
| Endurance: | Up to 5 hrs |
| Batteries: | 2-4 NiMH 24V 10 Ah packs |
| Motors: | 2x high power belt drive & shaft |
| Rudder: | 2x with independent steering |
| RC: | Futaba or Hitec 2.4 GHz |

CEESCOPE™ Hydrographic Instrumentation:

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|--------------|--|
| Ping Rate: | 1 – 20 Hz |
| Depth Range: | 0.2 – 200 m (0.6 - 650 ft) |
| Transducers: | 33 / 200 kHz, 200 kHz |
| Accuracy: | 1cm ± 0.1% of depth |
| QC: | Full water column echogram |
| Format: | Network (Ethernet) incl. video |
| Data logger: | On board (HYPACK & CEE format) |
| GNSS: | DGPS: NovAtel, Hemisphere RTK: NovAtel, Trimble RTK L-Band: Hemisphere UHF: Satel 3AS UHF 400-470 MHz |
| Options: | ADCP |

