

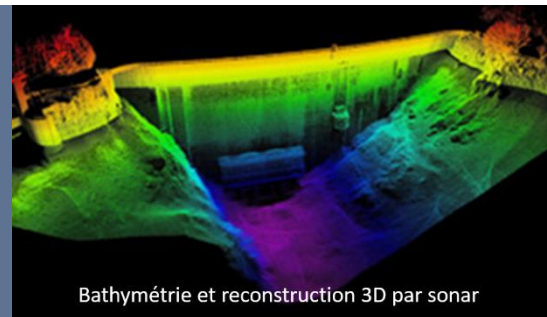


USV
Catarob-ATS-03

Catarob-ATS-03 is an Unmanned Surface Vehicle, catamaran type, with tele-operated and/or autonomous modes. **Ultra portable** (50 kg), it is the ideal platform for all kinds of investigations in shallow waters, above and below the surface.

Applications:

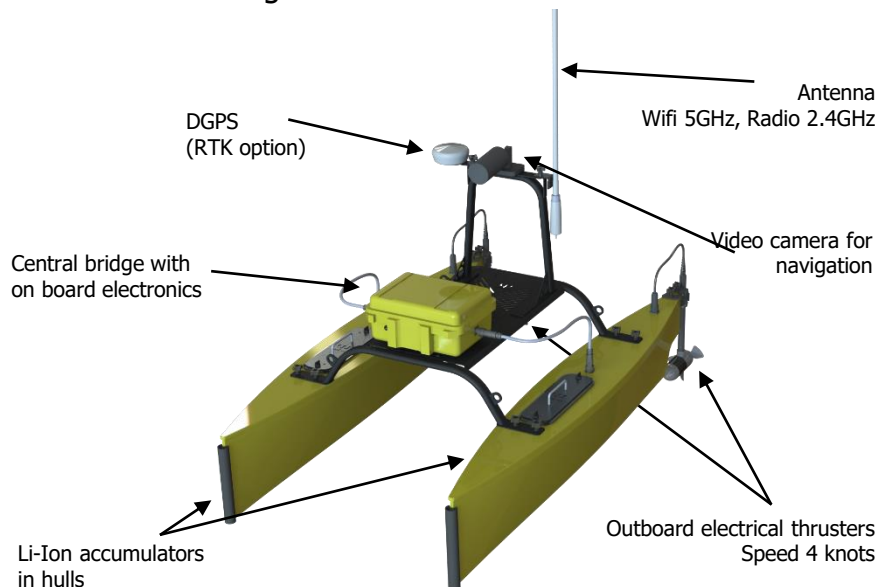
- Single beam and multi beam bathymetry
- Current profiling
- Infrastructures 3D modeling (sonar/Lidar)
- Objects and wrecks search



Bathymétrie et reconstruction 3D par sonar

Thanks to its open architecture and its **high speed PC to PC communication**, all kinds of sensors running under Windows can be easily integrated to the Catarob. The shore control PC allows **real time visualization and control** of navigation and all onboard sensors.

- Hand portable**
- One single operator**
- Tele-operated and/or autonomous modes**
- Autonomy > 4 h**
- Max. speed 4 knots**
- Payload capacity 15kg**
- Communication range >1km**





Technical specifications

Main specifications

Control	Remote control through Wifi 5GHz (back-up radio link 2,4GHz)
Dimensions	Length 1.8 m – Breadth 1.0 m – Height 1,2m
Weight	45 kg (without payload)
Speed	4 knots
Draft	Min. 0.1m, 0.17m with 15 kg payload
Max wave height	0.3m
Maximum current	1 m/s

Propulsion and energy

Thrusters	2 outboard electrical motors (2x8kg / 12Vdc@2x120W)
Batteries	Li-Ion Accumulators, 4h autonomy, charge level displayed on control PC, easily swappable
Power	AC 110-220V to recharge the batteries

System controls

Operator interface	Portable PC + joystick box + auto navigation modes
Communication	Wifi 5GHz, range >1km; radio link 2,4GHz
Navigation sensors	HD color camera, compass, DGPS (RTK optional)
Sensors data display	Video/sonar images display on control PC
Position display	Position and trajectory display on all types of maps
On board electronics	PC104 + 5V/12V/24V power, in IP67 case
Sensors data interfaces	Serial, USB, Ethernet, others on demand

Documentation and packaging

Transport	Wooden crate (195x60x55 cm)
Maintenance	No routine maintenance required
Documentation	Operator manual, digital and paper versions
Warranty	1 year, man-hours and parts, excl. transport costs

Sensors and options

Auto navigation	Automated navigation software (pre-programmed trajectories)
Single-beam bathymetry	Aymar Smart SS510 Sounder, 235kHz, Range 0.5-100m, Resolution 3cm
Multi-beam bathymetry	Norbit WBMS Sounder + INS + GPS RTK, range 0.5-200m
Side Scan Sonar	Tritech Starfish 450kHz / 990kHz
Imaging sonar	Teledyne BlueView M Series, 450kHz / 900kHz / 2250kHz
3D Lidar	VLP-16 «PUCK», FOV 30°, rotation 360°
Current profiling	ACPD Sontek, Flowquest or Teledyne RDI
Batteries	Additional battery packs to increase autonomy
Hulls color	Yellow as standard, others colors on demand
Support contract	Annual maintenance contract, including software updates
Other sensors	On demand

