CAT-Surveyor USV

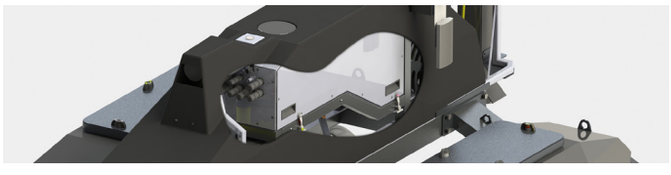
- Range 5km
- 2 electrical motors
- 12h autonomy
- Payload 80kg

SUBSEA TECH
Marine and Underwater Technologies

The CAT-Surveyor USV

is an Unmanned Surface Vehicle, catamaran type, with tele-operated and/or autonomous modes for hydrographic data acquisition or surveillance of underwater zones in harbours, costal areas and inland waters.

Thanks to its open architecture and its high speed PC to PC communication, all kinds of sensors running on Windows can be easily integrated to the CAt-Surveyor. The shore control PC allows real time display and control of navigation and onboard sensors.

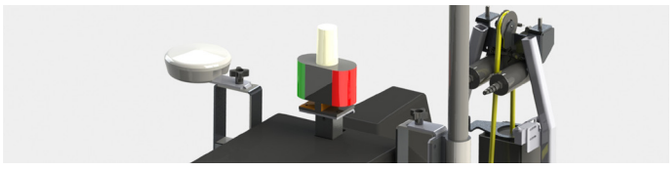


ON BOARD ELECTRONICS

Thanks to the open architecture of the on board PC, the CAT-Surveyor can embed various sensors such as sonars, echosounders and ADCP

BATTERIES

Two LI-Ion accumulators integrated in the hulls give a full energy autonomy to the CAT-Surveyor allowing up to 12h missions in the most remote areas.



NAVIGATION

CAT-Surveyor is equipped with 2 full HD color video cameras, 2 outboard electrical motors, GPS positioning, high speed Wifi communication up to 5km range and automatic navigation mode..

TECHNICAL SPECIFICATIONS

MAIN FEATURES

Control	Remote control through Wifi 5GHz (back-up radio link 2,4GHz)
Dimensions	L 3m x b1,6m x H 1,2m (without antenna)
Weight	270kg without payload
Payload	80kg
Max. speed	5 knots
Draft	36cm, 48cm with 80kg payload
Max. wave height	1m
Max.current speed	2m/s

SYSTEM CONTROL

Operator interface	Laptop PC + joystick box + auto navigation modes
Communication	WiFi 5GHz range > 5km, back-up radio link 2,4GHz
Navigation sensors	2 full HD color video cameras, DGPS (RTK in option), INS, Compass
Sensor data display	Video/sonar images display on control PC
Position display	Position and trajectory display on all types of maps
On board electronics	PC fanless Intel Core i7 + 5V/12V/24V power in IP67 case
Sensor data interfaces	Serial, USB, Ethernet, others on demand
Auto navigation	Automated navigation software (pre-programmed trajectories)

PACKAGING

Transport	On a trailer, in a container or on a pallet

PROPULSION AND POWER SUPPLY

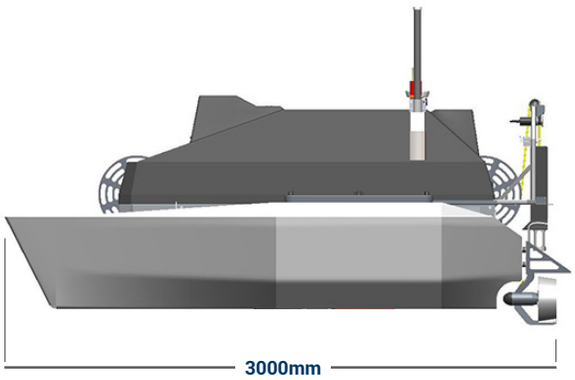
Propulseurs	2 outboard electrical motors (2x500W / 24VDC)
Batteries	Li-Ion Accumulators, 12h autonomy, charge level displayed on control PC, easily swappable
Alimentation	AC 110-220V to recharge the batteries

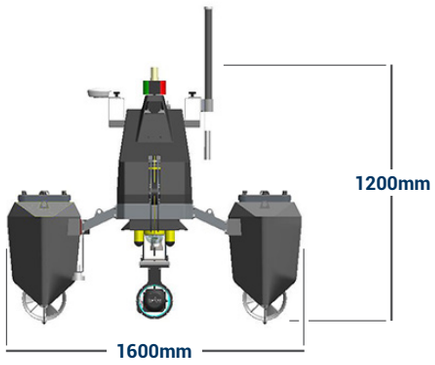
MAINTENANCE AND WARRANTY

Documentation	Operator manual, soft and hard versions
Maintenance	No specific maintenance required
Warranty	1 year, man-hours and parts, excl. transport costs

OPTIONS

Winches	Front dipping winch for deployment of mini-ROV and physico-chemical gauges Rear winch for towed sensors (cameras, side scan sonar, magnetometer)
Mini-ROV	Portable underwater inspection robot Subsea Tech Observer
Retractable frame	Mounting device under the USV for sensor deployment (sonars, echosounders)
Single beam bathymetry	Airmar Smart SS510 echosounder, 235kHz, range 0,5-100m, resolution 3cm
Multibeam bathymetry	Norbit WBMS echosounder + INS + GPS RTK + SVP + QUINSy
Side scan sonar	Starfish 450kHz/990kHz
Imaging sonar	Teledyne BlueView M series or BluePrint Oculus
3D LIDAR	Norbit iLiDAR or VLP-16 «PUCK»
Current profiling	ADCP Sontek, Flowquest or Teledyne RDI
Batteries	Additional battery packs to increase autonomy





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