

RTSYS

Underwater Acoustics & Drones



COMPANY PROFILE

販売代理店：



株式会社ソリッド・ソリューションズ

SOLID SOLUTIONS INC.

〒105-0013 東京都港区浜松町一丁目2番地4号

TEL : 03-6868-3820 FAX 050-3852-4200

Mail : sales@solidsi.co.jp HP : www.solidsi.co.jp

COMPANY



110
EMPLOYEES

25 M€
TURNOVER

The RTsys group is dedicated to the design, manufacture, integration and implementation of high-tech equipment in marine environments.



Underwater robotics and
acoustics solutions

Design, manufacture and
customer support services



Tailor-made
marine monitoring solutions

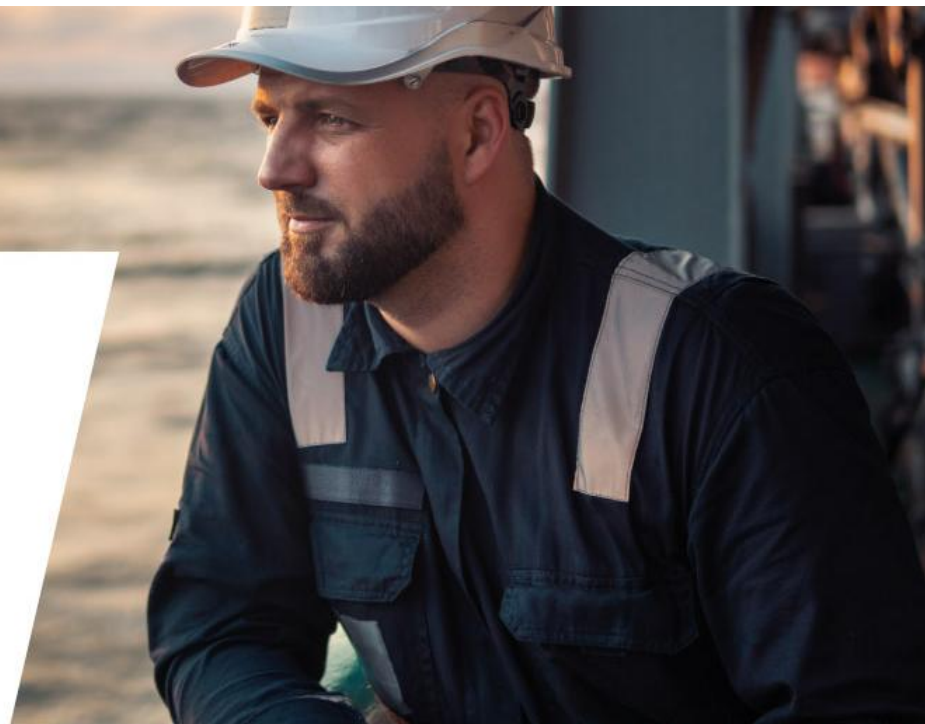
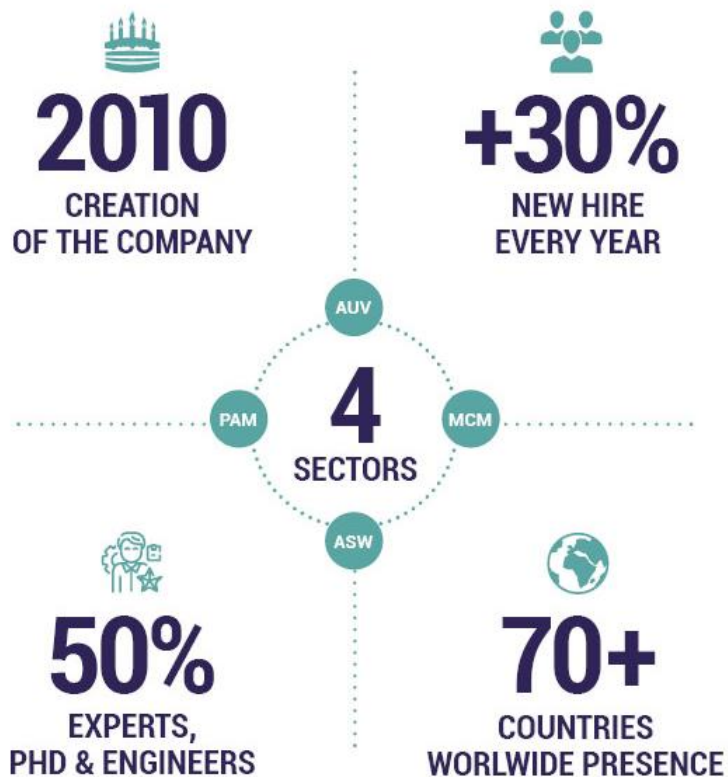
Trading of high-tech marine
Maintenance services



Marine site investigation

Data analysis

KEY FIGURES




5000m
DISTANCE OF UNDERWATER
COMMUNICATION WITH OUR
ACOUSTIC PATENT


24/7
COMMITMENT TOWARDS
OUR PARTNERS
AND CUSTOMERS

intertek
Total Quality. Assured.

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

RTSYS Underwater Technologies

Main Site: 235 Rue de la Montagne du Salut, Lanester, 56600, France
has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

Design, instruments manufacturing in marine and submarine drones
aera. Engineering, training, leasing, maintenance in operational
condition and associated.

Certificate Number:
0238568
Initial Certification Date:
27 July 2012
Last Certificate Expiry Date:
26 July 2025
Date of Last Recertification Audit:
24 July 2025
Certification Cycle Start Date:
05 August 2025
Issuing Date:
13 February 2026
Valid Until:
26 July 2028



Mark Thomas

Mark Thomas
Executive Vice President
Assurance, Sustainability, AgriWorld &
Food

Intertek France Tour PB5, 1 Avenue du
Général De Gaulle 92800 Puteaux – France



In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.



ISO 9001:2015

The RTSYS quality management
system has been ISO 9001:2015
certified under number
0126090 since 27 July 2012.

2010

2012

Since 2015

SDA 14

Motherboard



AUV

**Recorders
& Buoys**

**Diverheld
systems**



1 | R&D

2 | Products range launch

3 | Distributors network

WORLDWIDE FOOTPRINT



**Lorient,
FRANCE**



**Singapore,
ASIA PACIFIC**



DISTRIBUTORS & CLIENTS



EXPERTISE & SKILLS



**Mechanics
& Robotics**



Embedded Electronics



Software



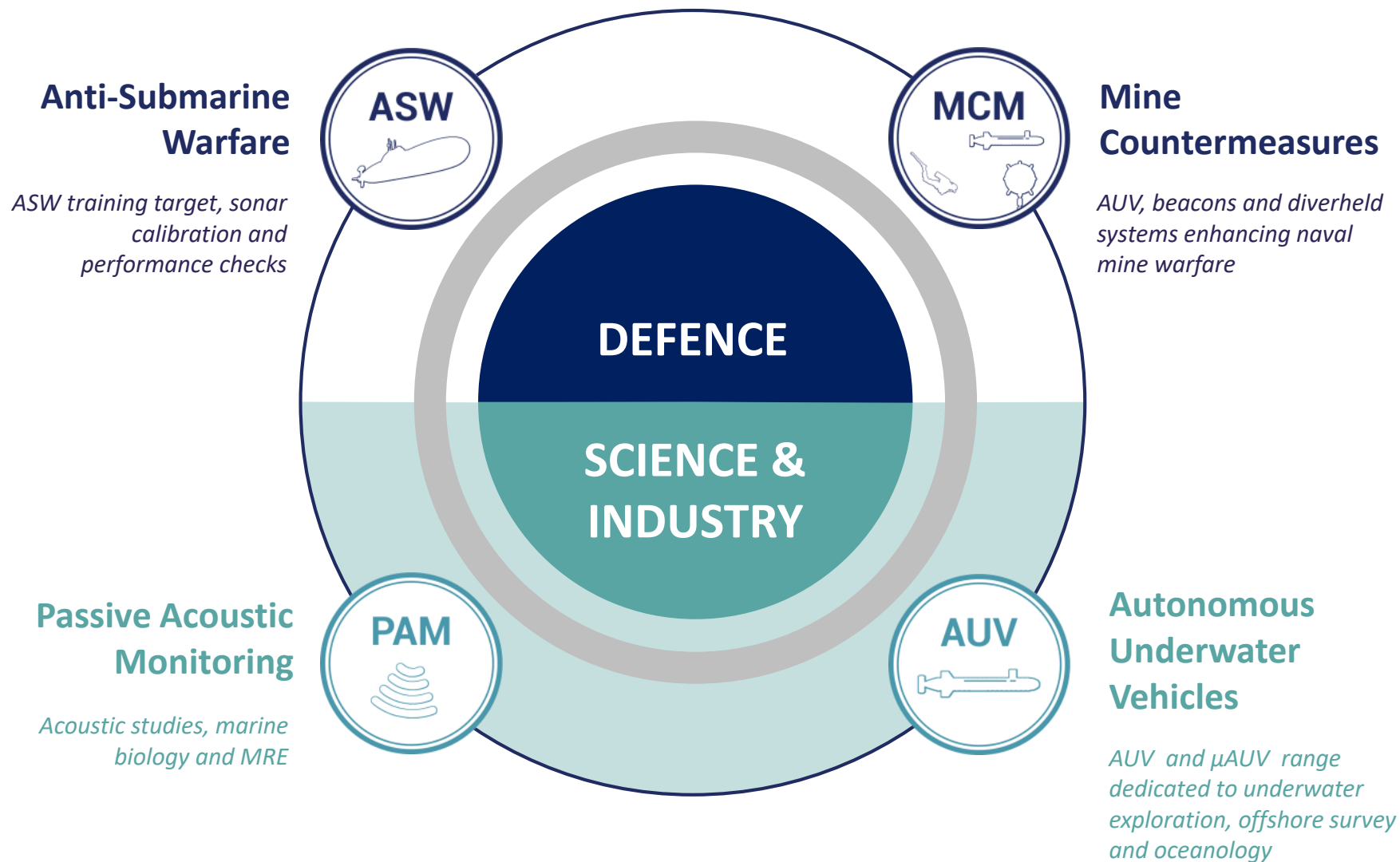
**Acoustic
Signal Processing**



35

Engineers, PhD,
Experts





Marine Renewable Energy



Offshore

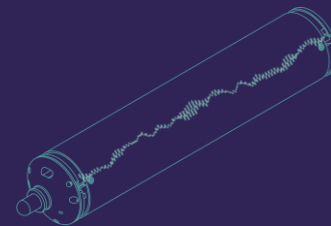
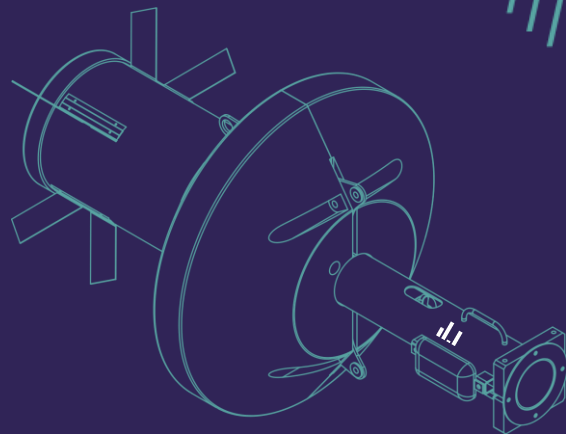
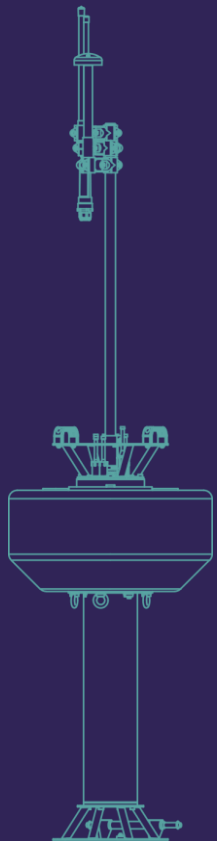


Science & Environment

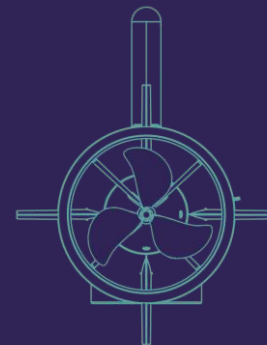


Defense





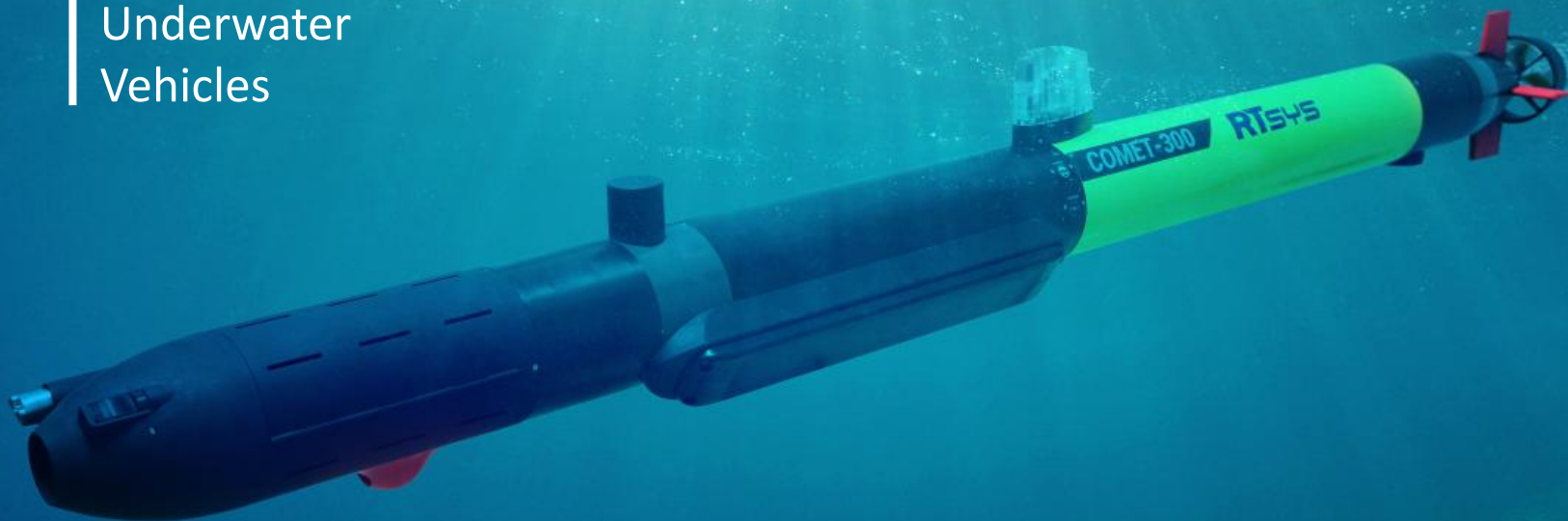
PRODUCT RANGES | FOCUS AUV





AUV

Autonomous
Underwater
Vehicles





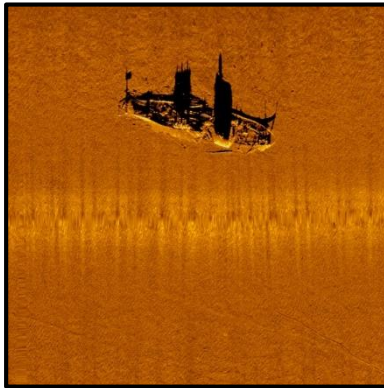
“ State-of-the-art technologies that delivers **high-quality subsea data**, while providing **eco-friendly, cost-effective** and **low-risk** solutions to support marine research, offshore energy and infrastructure development. ”

SMART, SAFE AND LOW-CARBON TECHNOLOGY:

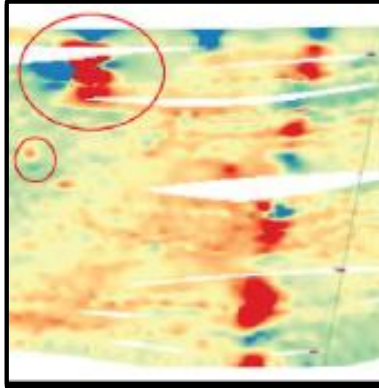
- ✓ High-quality data
- ✓ Wide area covering
- ✓ Faster data collection
- ✓ Eco-friendly solution
- ✓ Cost-effective alternative
- ✓ Reduced HSE risks
- ✓ Lower environmental impact
- ✓ Reduced vessel days
- ✓ Reduced time between missions
- ✓ Reduced hands-on control



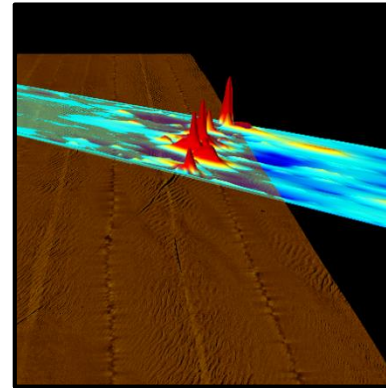
		NEMOSENS	COMET-300
DIMENSIONS (length)		100 to 150 cm	177 to 250 cm
WEIGHT		9 to 12 kg	27 to 40 kg
DEPTH		300 m	300 m
MAX SPEED		8 knots	10 knots
ENDURANCE		10 to 15h	10 to 15h
NAVIGATION ACCURACY			
DVL		YES	YES
INS		MEMS (drift < 2% of distance)	MEMS (drift < 2% of distance) or FOG (drift < 0,2% of distance)
Sparse LBL		option (drift < 5 m)	option (drift < 5 m)
PAYLOADS			
SSS	Side Scan Sonar	option (450 kHz or 900 kHz)	Dual Frequency (450/900 kHz)
BATHY	Bathymetry	-	option
MAG	Magnetometer	option	option
CAM	HD camera & lights	option	option
CTD	Multiparameter probes	option (CTD, O ² , Chl, Tu...)	option (CTD, O ² , Chl, Tu...)
OTHER OPTIONS			
AIS OAS		-	option



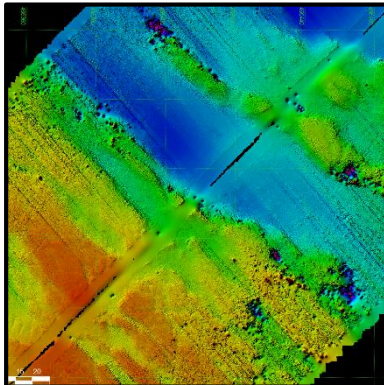
SSS | Side Scan Sonar



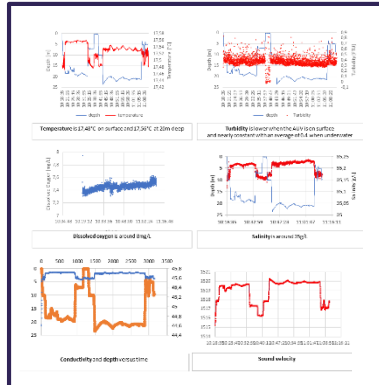
MAG | Magnetometer



SSS + MAG



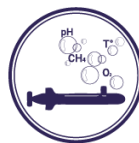
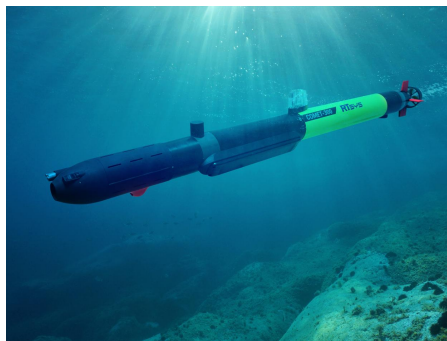
BATHY | Bathymetry



**Multi-parameter probe
CTD | O₂ | Chl | Tu...**



CAM | HD camera



OCEAN SCIENCE & RESEARCH

- Seabed mapping
- Marine biology
- Environmental impact monitoring
- Water quality assessment
- Deep lake / limnology
- Under sea ice shelves exploration

ENERGY & INDUSTRY

- Seabed mapping (offshore/coastal/shallow water)
- Subsea cable/pipeline/anchoring detection
- Underwater UXO detection
- Maritime infrastructure inspection
- Search and rescue (SAR)



SEABED MAPPING & UXO SURVEY



Applications:

- > MCM
- > Special Forces
- > Amphibious Operations
- > VSW
- > ISR
- > REA
- > SAR
- > Beaching
- > Harbor protection



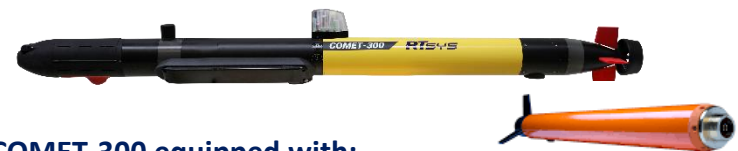
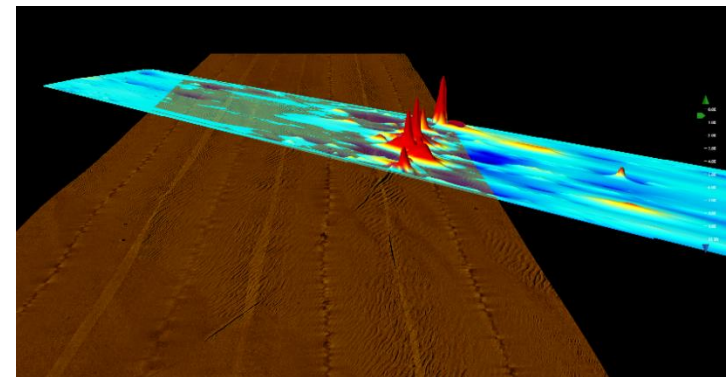
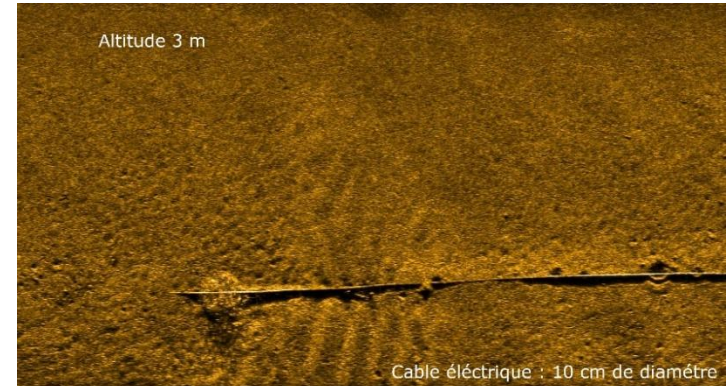
NEMOSENS



COMET-300

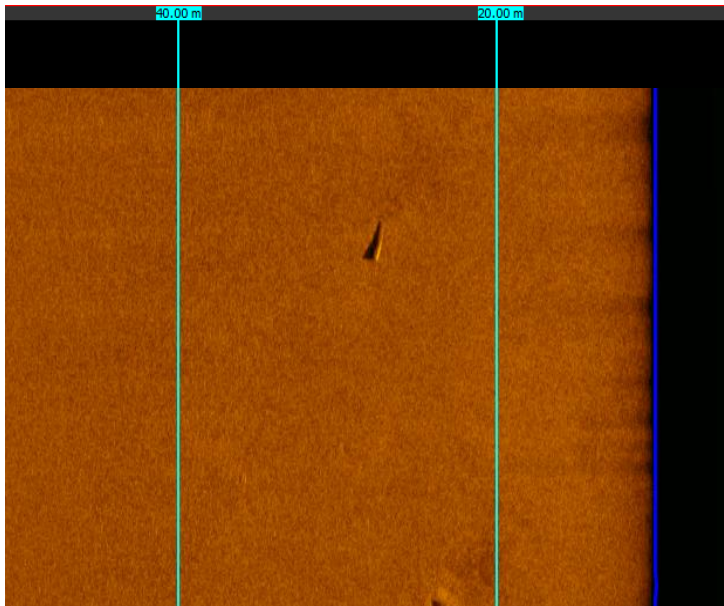
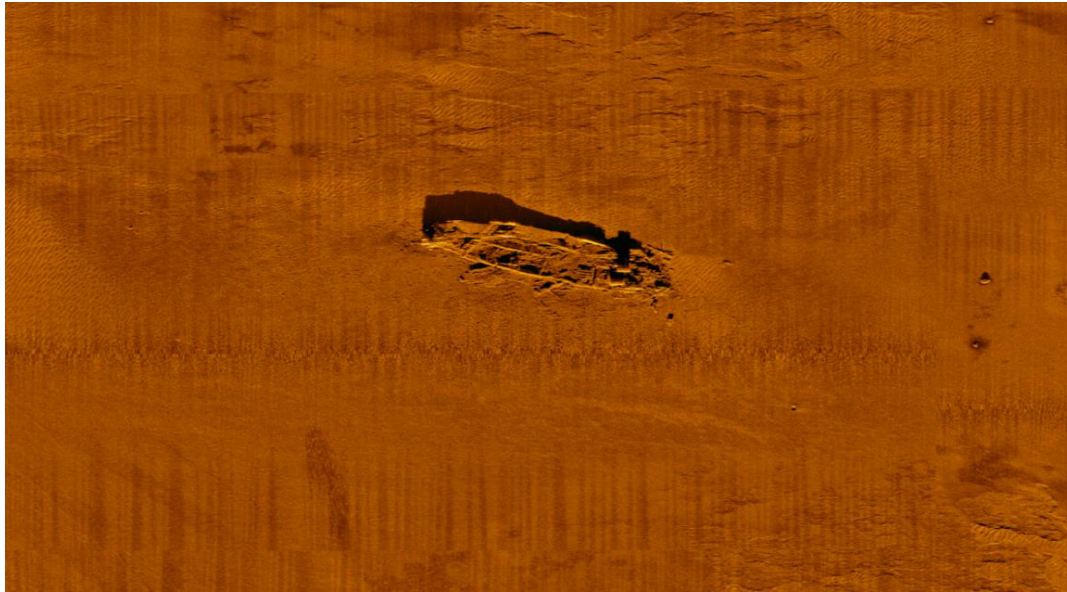


Electrical cable detection



COMET-300 equipped with:

- > Side Scan Sonar Klein UUV-3500 (450kHz/900kHz)
- > Towed Magnetometer (Marine Magnetic Explorer)



**COMET-300 equipped with
SSS Klein UUV-3500 (450kHz/900kHz)**

L: 108 m

l: 24 m

AUV altitude: 20 m



**COMET-300 equipped with
SSS Klein UUV-3500 (450kHz/900kHz)**

WWII UK ground mine Mk4

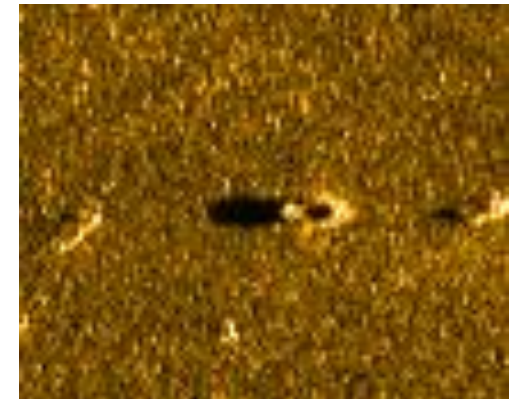
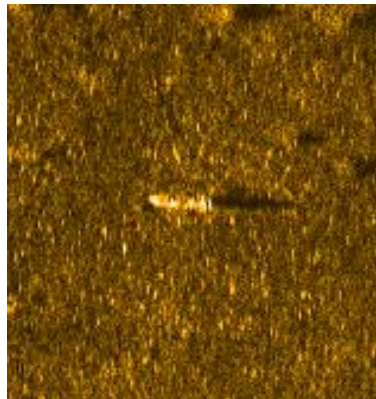
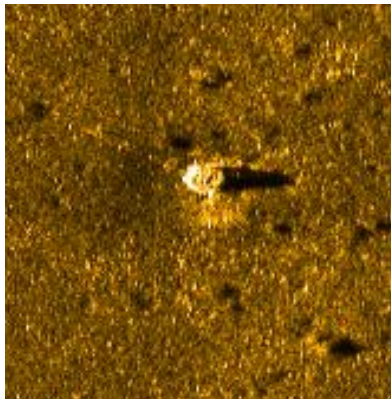
Length : 2,8m

Width : 0,7m

COMET-300 | TARGET DETECTION (SSS)

Data from sea trials:

- > Sonar Frequency : 900kHz
- > AUV Altitude during mission : 6m
- > AUV speed during mission : 3 knots
- > Sonar acoustic range : 30m



COMET-300 | SEABED SURVEY (SSS + MAG)

Data from sea trials:

- > Sonar Frequency : 900kHz
- > Magnetometer Acquisition rate : 10Hz
- > AUV Altitude during mission : 3m
- > AUV speed during mission : 3 knots
- > Sonar acoustic range : 20m



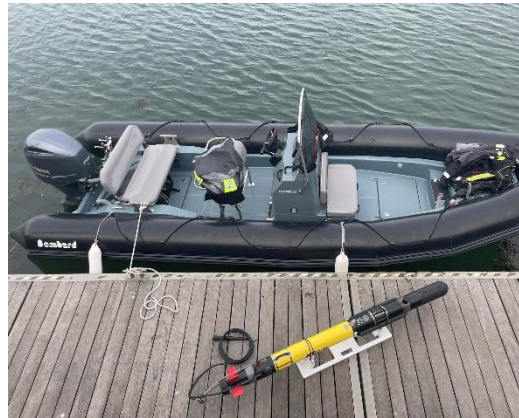
Correlation of sonar images and magnetic anomalies on a single software view.



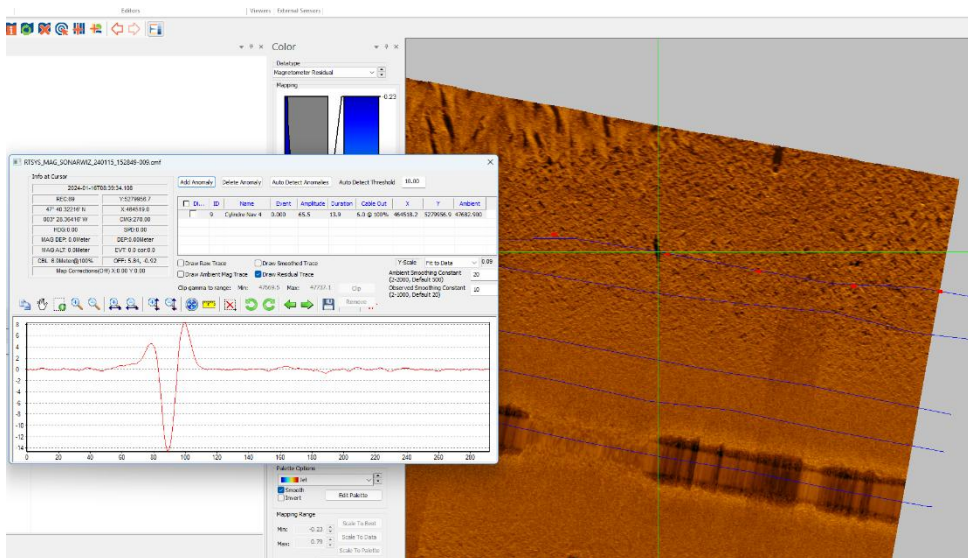
COMET-300 | SEABED SURVEY (SSS + MAG)



Iron Mass : 25 kg
Length : 96 cm
Diameter 18 cm



COMET AUV with towed magnetometer
Depth: 27 m
Altitude: 3 meters – speed 3.5 knots



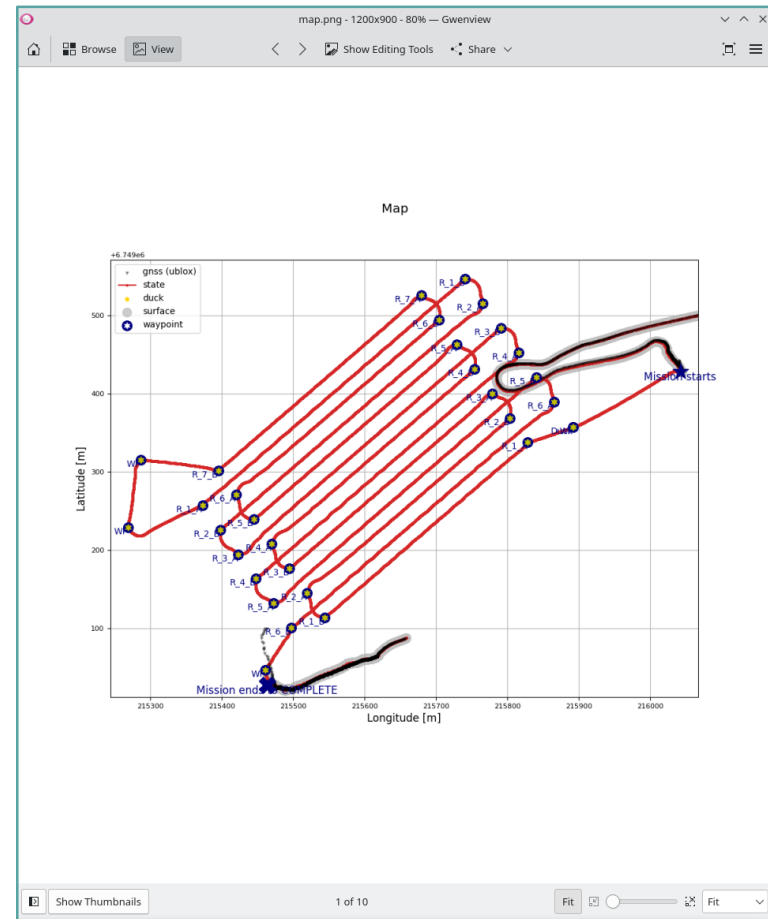
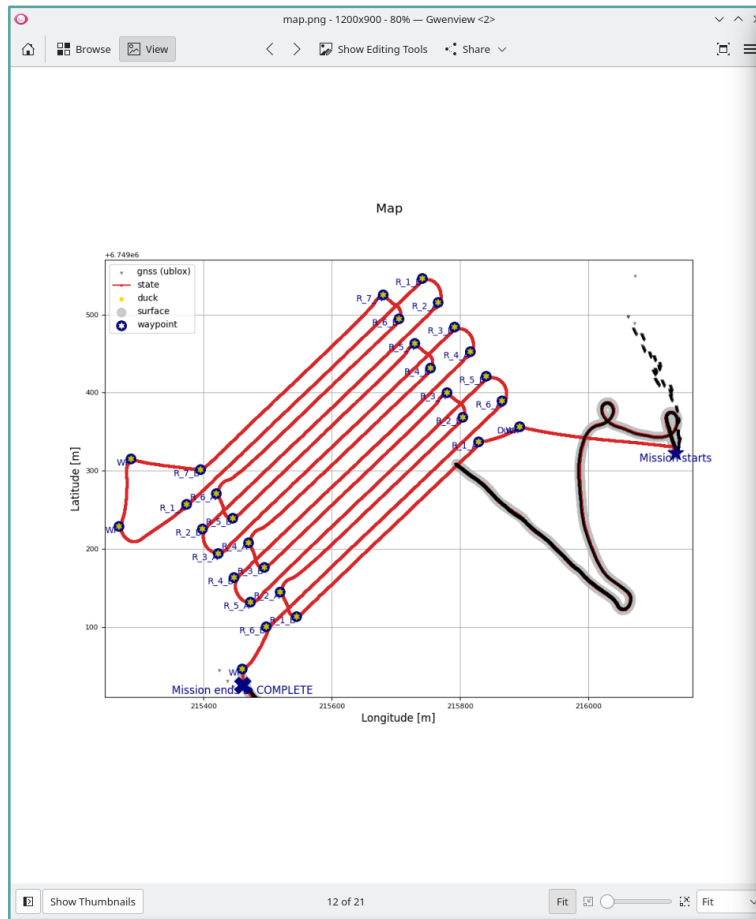
Anomaly deviation at 3 m slant range : 65 nT
Anomaly deviation at 10 m slant range : 10 nT
Ambient noise during survey : 0.5 nT



- > **Easy to deploy and recover** with limited effort | Two-man portable, less than 40 kg
- > High-accuracy **positioning** | Limited drift independent of the covered distance
- > High-accuracy **detection** | High detection precision
- > AUV **position real-time follow-up** from the surface | Live-tracking with light portable device
- > Limited redeployment effort, **quick mission sequencing**
- > Fully compatible with all RTSys products

NAVIGATION precision of COMET-300 with INS FOG

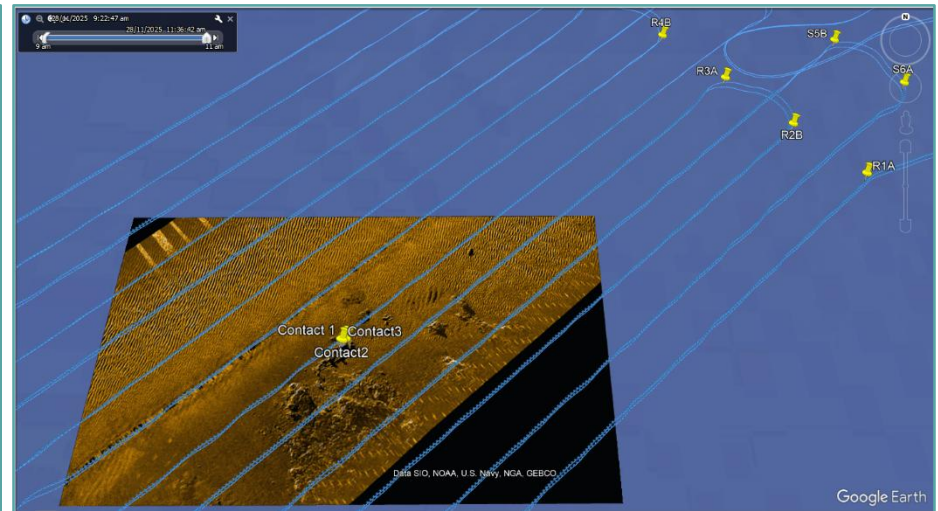
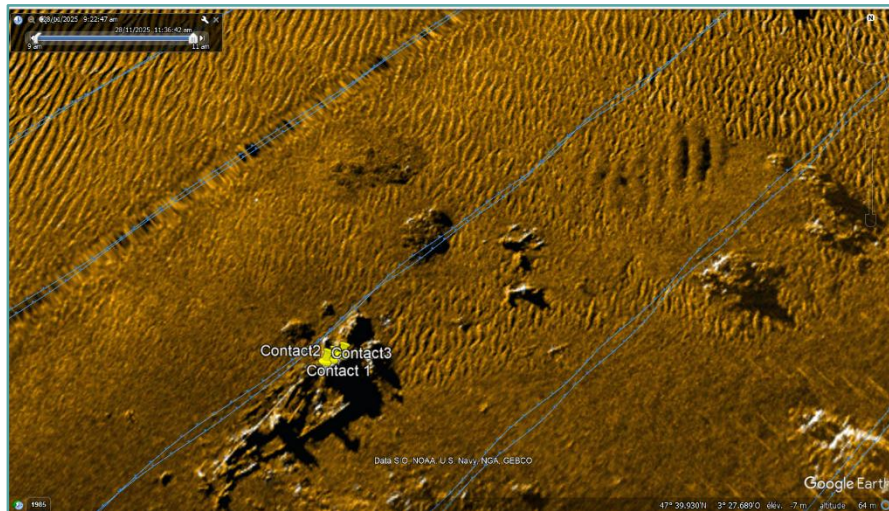
- > 6 200 meters of track coverage
- > Same mission, 2 different navigations (1 week interval), 2 different AUV launching positions
- > Only 4 to 5 meters of error at the exit (without post-processing) = **less than 0,1% error before post-processing**
- > Post-processing would even further improves accuracy



COMET-300 | HIGH-PRECISION DETECTION

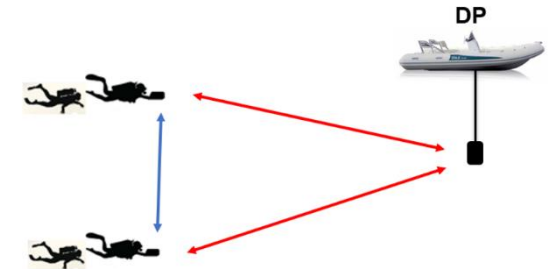
DETECTION accuracy of COMET-300 with INS FOG / SSS 900 kHz + data post-processing

- > Same mission, 3 different navigations
- > 3 contacts detected on the wreck antenna
- > Post-processing using Exail DelphINS (with KALMAN filter) and SONARWIZ software
- > **Positioning gap between each contacts < 60 cm**



Surface Communication Module

- Dim: 300x250x125 mm
- Weight: 3,4kg
- Depth: 300 m
- Sea condition: Sea State 4
- Range: More than 2000m



One unique Surface Communication Module
Compatible with every RTSys device

Positioning Buoy - Relay beacon or repositioning module

- Height: 3010
- Diameter: 122 mm
- Weight: 6,6 kg
- Range:
 - 2 km underwater communication
 - 10 km UHF communication range
- Sparse-LBL repositioning
- Autonomy: 27 hours
- Rechargeable battery

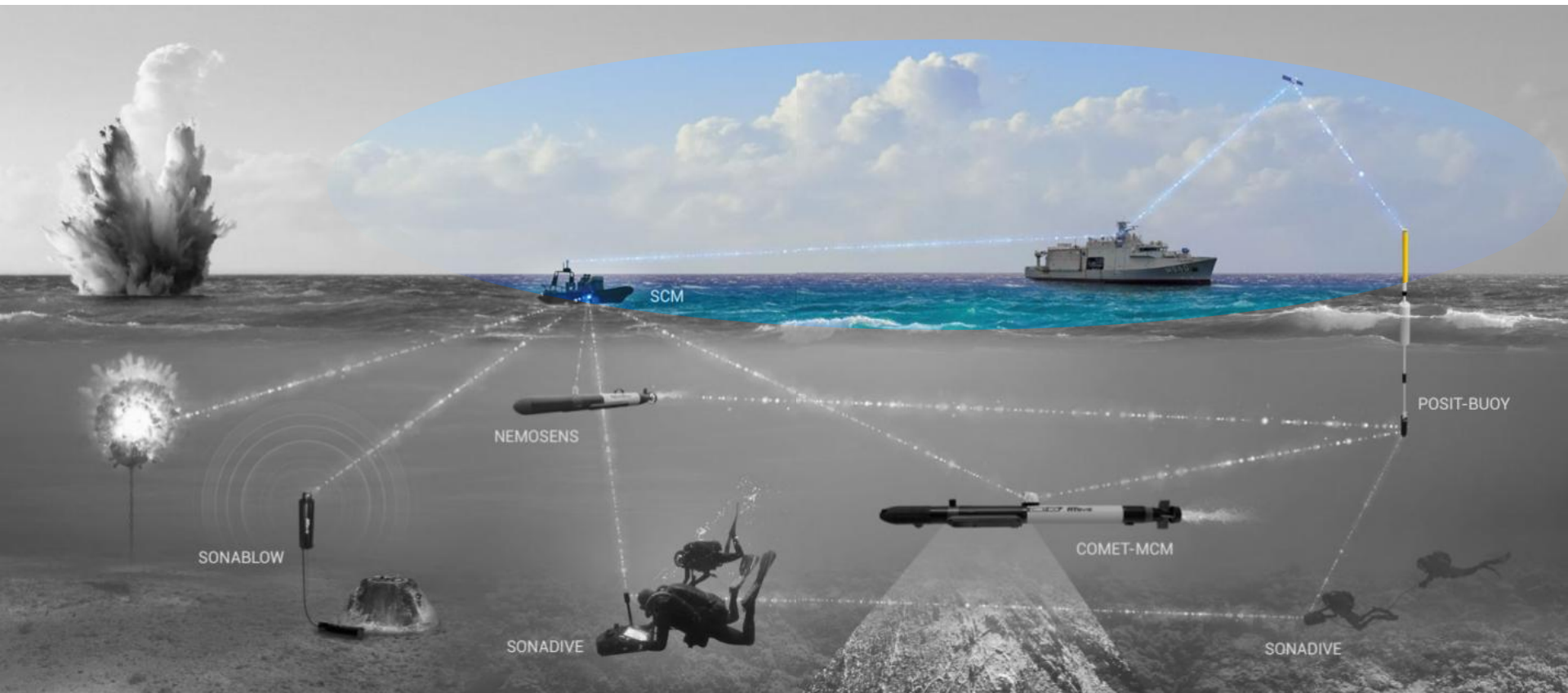


- Range : 2 km
- Data : position, status, orders, messages
- Omnidirectional transducers

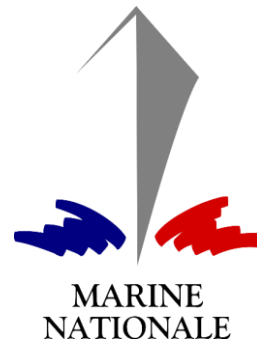


Aerial communication network

- Range : 10 km
- Data : position, status, orders, messages
- UHF antennas



- > EOD diver
- > ARMY / NAVY / MARINE Clearance Diver
- > NAVY MCM Group
- > Special Forces
- > Combat Divers
- > SAR / Coast Guard
- > Maritime POLICE



RTSYS

UNDERWATER
TECHNOLOGIES



rtsys.eu



[in](#)