

SUBSEA

POSITIONING



exail



An underwater photograph showing a sandy seabed with several dark, rounded rocks. A faint, dark line, possibly a cable or trench, runs diagonally across the foreground. The water is a deep teal color, and the lighting is soft, creating a serene and mysterious atmosphere.

Exail, the global standard in subsea positioning

Ensuring operational
excellence through decades
of acoustic innovation.

A world leader in the field, Exail delivers comprehensive subsea positioning capabilities with centimeter-level precision for the most demanding offshore operations. By combining pioneering acoustics (USBL/LBL) with Fiber-Optic Gyroscope (FOG) technology, we ensure unmatched operational integrity and real-time telemetry. Supported by a global service network, our ecosystem is designed to maximize efficiency, reduce vessel time, and guarantee mission success.

USBL TRACKING & COMMUNICATION

GAPS SERIES: THE ULTIMATE ALL-IN-ONE USBL

Featuring a 200° aperture, Gaps is a pre-calibrated USBL system with an operational slant range of up to 7,000 m. It ensures high-accuracy tracking and communication link for multiple subsea assets in a single, plug-and-play system.



High-precision TRACKING

Zero calibration

Immediate deployment with no vessel downtime

Integrated INS

Built-in motion filtering for stable geo-referencing

Survey-grade accuracy

0.06% precision for demanding applications

Advanced COMMUNICATION

Robust acoustic link

Real-time command and control of AUVs and ROVs

Remote retrieval

Wireless data harvest to avoid costly ROV interventions

Noise resilience

Reliable telemetry in harsh areas, like near DP thrusters

Versatile APPLICATIONS

All-depths

Field-proven from shallow waters down to 7,000 m

Multi-asset

Track and command up to 15 targets simultaneously

Multi-mission

Offshore energy, DP, hydrography, research...



MTB & MT9 SERIES: DEDICATED TRANSPONDERS FOR SEAMLESS CONNECTIVITY

Gaps features a dedicated transponder range while remaining fully compatible with third-party assets.

01 Universal & Open
Seamlessly compatible with Exail and 3rd-party systems

02 High-performance link
Long-range, secure telemetry up to 4,000 m

03 Rugged & efficient
Low-power, corrosion-resistant design for long-term missions

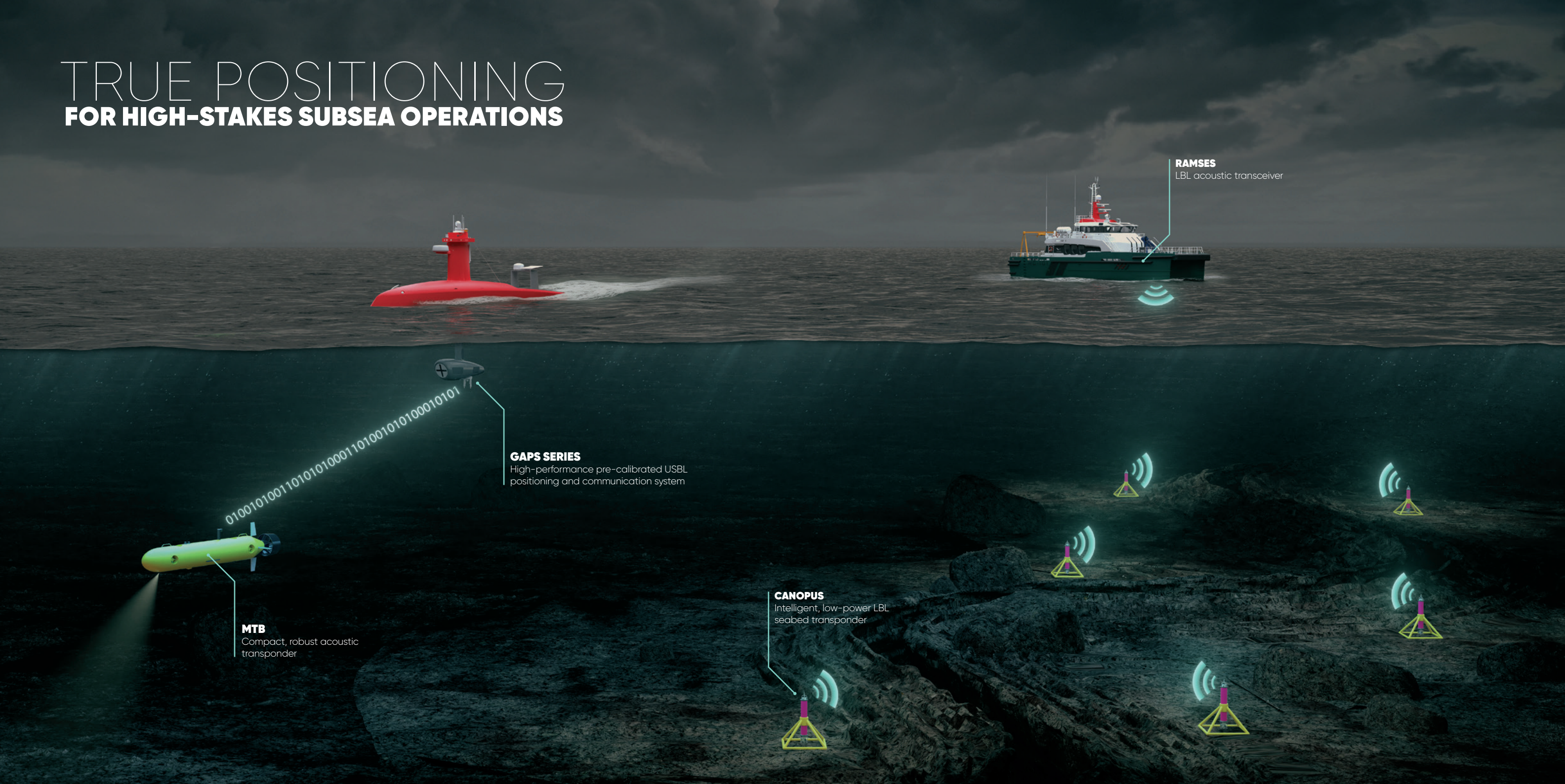
TRUE POSITIONING FOR HIGH-STAKES SUBSEA OPERATIONS

RAMSES
LBL acoustic transceiver

GAPS SERIES
High-performance pre-calibrated USBL
positioning and communication system

MTB
Compact, robust acoustic
transponder

CANOPUS
Intelligent, low-power LBL
seabed transponder



LBL HIGH-PRECISION & INTEGRITY

DEEP-SEA CENTIMETRIC PERFORMANCE

Combining Canopus, Ramses, INS and Delph SP, Exail field-proven LBL suite optimizes vessel time and secures the most demanding deep-water missions through unrivaled positioning accuracy.



Centimeter-level **ACCURACY**

Precision placement

Centimeter accuracy for critical asset positioning and monitoring

Stable reference

Fixed seabed frame, unaffected by surface conditions

Secure telemetry

Reliable data exchange via hundreds of unique codes

Operational **EFFICIENCY**

Sparse LBL savings

Fewer transponders needed thanks to INS coupling

Reduced vessel time

Faster deployment, calibration, and recovery

Automated workflow

Simplified mission planning and operation via Delph SP

Long-term **RELIABILITY**

High-stakes ready

Built for metrology, offshore construction, geodesy, survey...

Multi-vehicle positioning

High-update monitoring of multiple subsea vehicles

Long-term endurance

Low power and corrosion-resistant for multi-year use

DELPH SP: COMPREHENSIVE SUPERVISION SOFTWARE SUITE



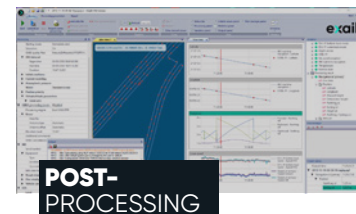
PLANNING & SIMULATION

Array design and visibility mapping to secure missions before deployment



OPERATIONAL CONTROL

Automated calibration and real-time monitoring for simplified field management



POST- PROCESSING

Advanced data enhancement and comprehensive reporting for total mission integrity

SPECIFICATIONS

GAPS SERIES USBL SYSTEMS

Scalable tracking and positioning solutions for every mission



Gaps M3



Gaps M5



Gaps M7

Pre-calibrated		Yes	Yes
Operating range	995 ⁽¹⁾ /4,000 ⁽²⁾ m	995 ⁽¹⁾ /4,000 ⁽²⁾ m	4,000/7,000 ⁽³⁾ m
Absolute accuracy (% of slant range CEP50 ⁽⁴⁾)		0.20%	0.06%
Acoustic repeatability (% of slant range CEP50 ⁽⁴⁾)	0,10%	0,10%	0.06%
Embedded motion sensor		Octans Nano FOG-based AHRS	Phins FOG-based INS
Heading accuracy		0.15° secant lat (RMS)	0.01° secant lat (RMS)
Dimensions (height x diameter)	465 mm x 296 mm	520 mm x 296 mm	638 mm x 296 mm

(1) Export-free version | (2) Export-control version | (3) LF option | (4) CEP50: performance depends on environmental conditions

CANOPUS & RAMSES LBL SUITE

Ultimate precision for the most challenging fields



Ramses



Canopus

Depth rating	4,000 m	4,000 m
Precision	< 10 mm	< 10 mm
Autonomy (pings at max sound level)	n/a	1,600,000
Transducer beam shape	Omnidirectional	Omnidirectional
Acoustic communication	500 bps / 8 kbps	500 bps / 8 kbps
Data logging	32 Gb	32 Gb