

# Your Nearshore Survey Partner

Welcome to SEP Hydrographic

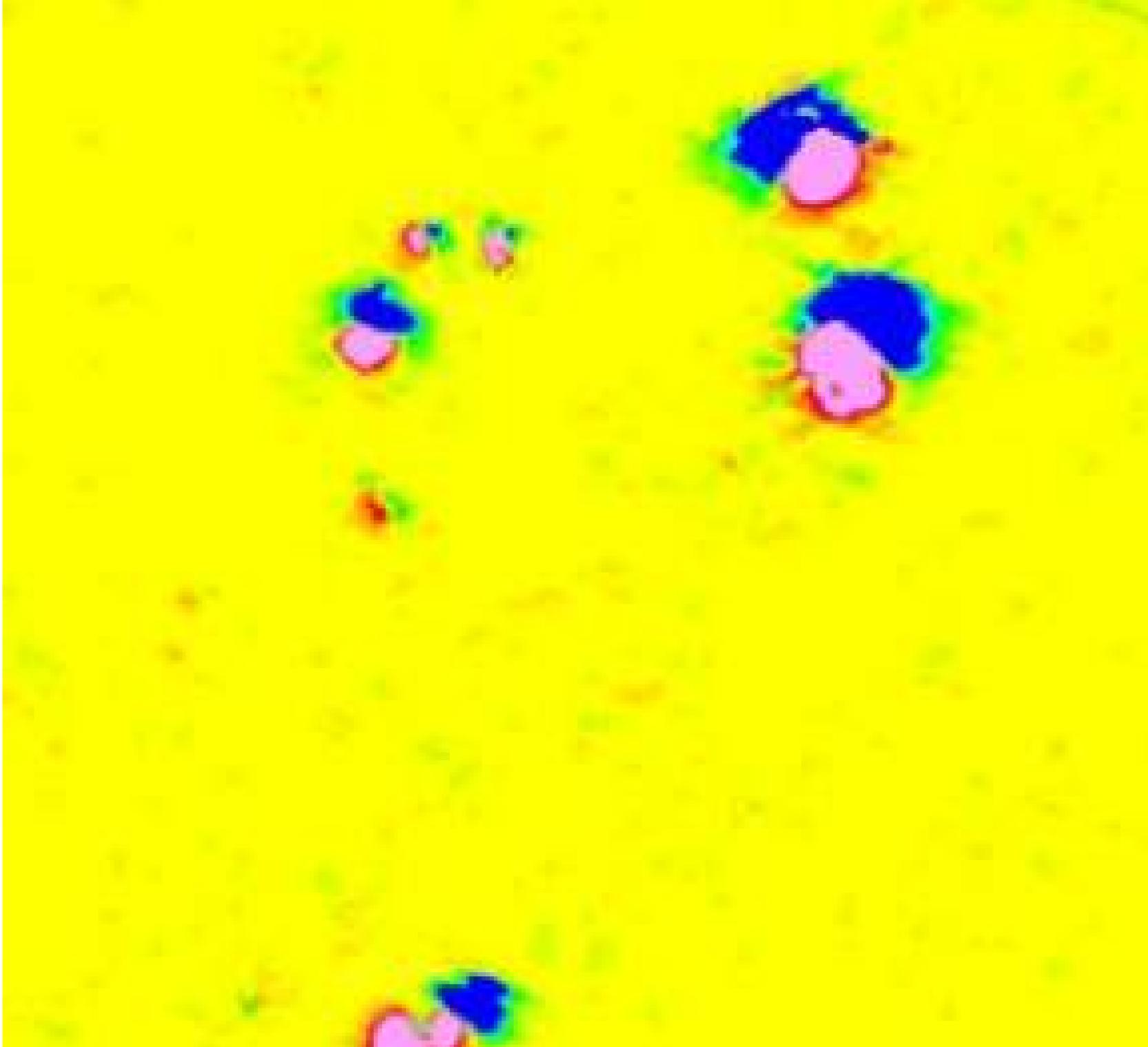
# Seamless integration with your team

SEP Hydrographic specialises in Hydrographic and Geophysical Surveys within the nearshore and coastal environment. We work with clients from various industries, including Offshore Renewables, Ports and Harbours, Utilities and Oil and Gas, and Public Sector organisations.

We combine the latest surveying technology and software to produce high-quality data and deliverables, which meet or exceed our client's expectations.

We integrate seamlessly with your team and other companies within the SEP Group to offer a complete end-to-end service, from data acquisition to data processing and analysis, through to the delivery of final products.

Whether you are looking to carry out a small-scale bathymetric survey or a large-scale geophysical project, we have the expertise and resources to meet your needs.



**Our team brings a wealth of knowledge in conducting hydrographic and geophysical surveys and is committed to providing a professional service that is second to none.**

# Providing a complete land and marine survey solution

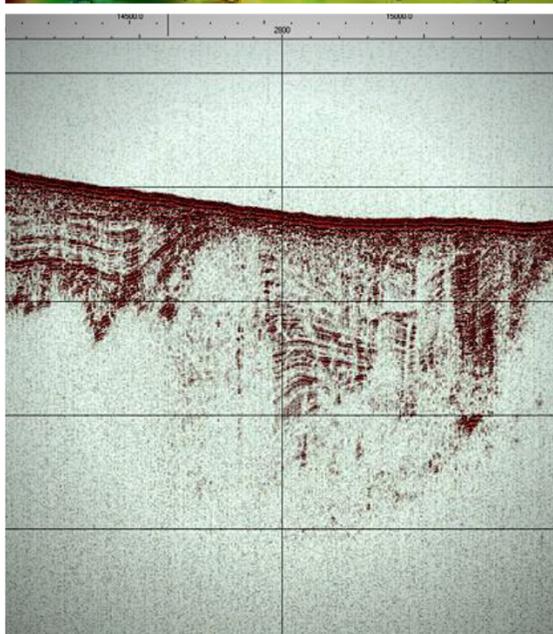
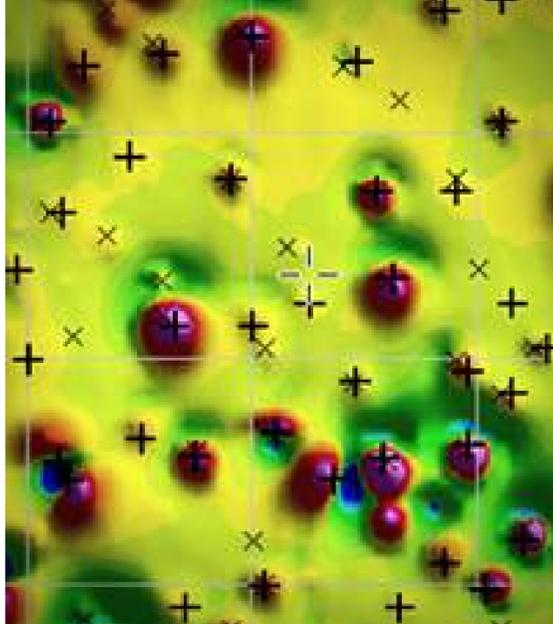
Established in 2020, SEP Hydrographic was founded to meet the growing demand for a combined land and marine survey solution.

SEP group companies have completed thousands of projects, working on some of the most recognisable landmarks in the UK. We continue to expand and diversify our portfolio of services to meet the evolving needs of our clients.

Our SEP Hydrographic leadership team benefits from more than 45 years of experience providing various marine survey services to international oil, gas, renewable energy and utility companies.

We have access to the latest generation of survey and positioning equipment, backed by experienced personnel, allowing us to collect in-depth data sets quickly and cost-effectively.

Our state-of-the-art equipment enables us to provide clients with comprehensive survey results that are accurate, reliable and above all safe.



Techniques include:  
Multibeam  
Bathymetry  
Side Scan Sonar  
Sub Bottom Profiler  
Magnetometer  
ROV Inspection  
Data Processing and Interpretation  
GIS and Mapping Services

# The SEP Group

## Integrated land and marine survey services

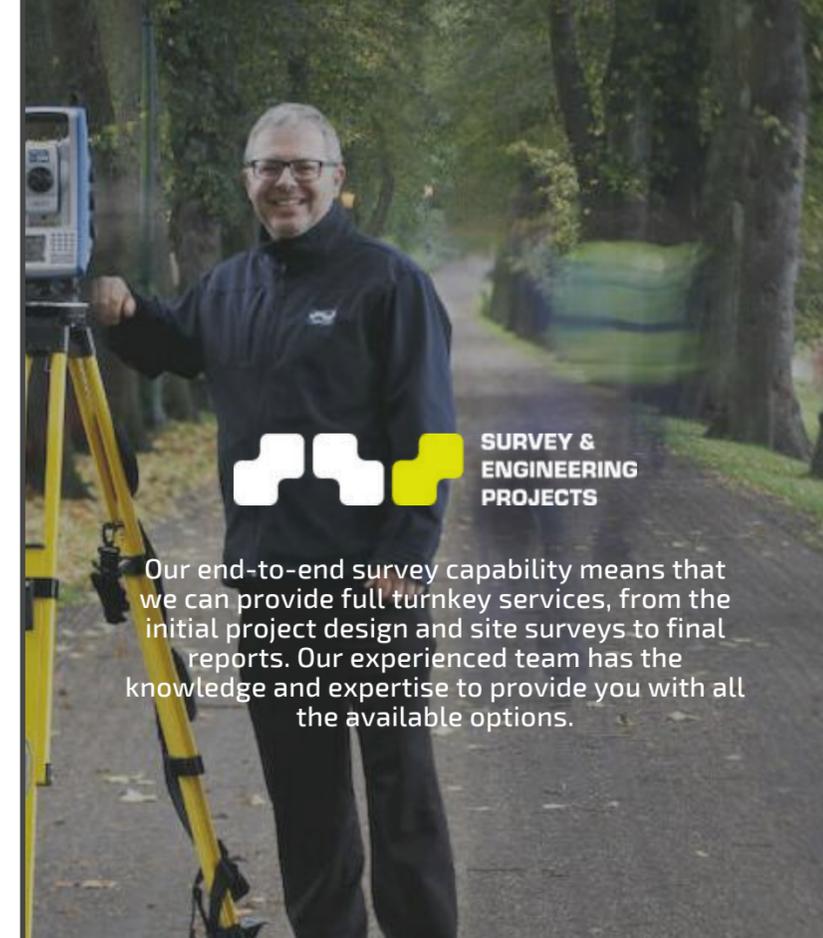
The SEP Group provides clients with a seamless end-to-end survey solution, from data acquisition and processing through to deliverables. Our network of experienced personnel cover every aspect of the surveying process, making us one of the most comprehensive service providers in the UK.

We are proud to be recognised as a reliable and trusted partner for our clients, who depend on us to deliver exceptional service, quality data and products.

Our services, personnel and knowledge continue to develop and evolve in this ever-changing industry to ensure we can produce the latest, technically advanced options available.

Continuous improvements and new developments have resulted in our services portfolio expanding and allowing us to cater for & deliver the whole range of available surveys.

**Established in 1986, our founding core principle is to provide a simple and effective surveying solution. Our principles have not changed but our business certainly has.**



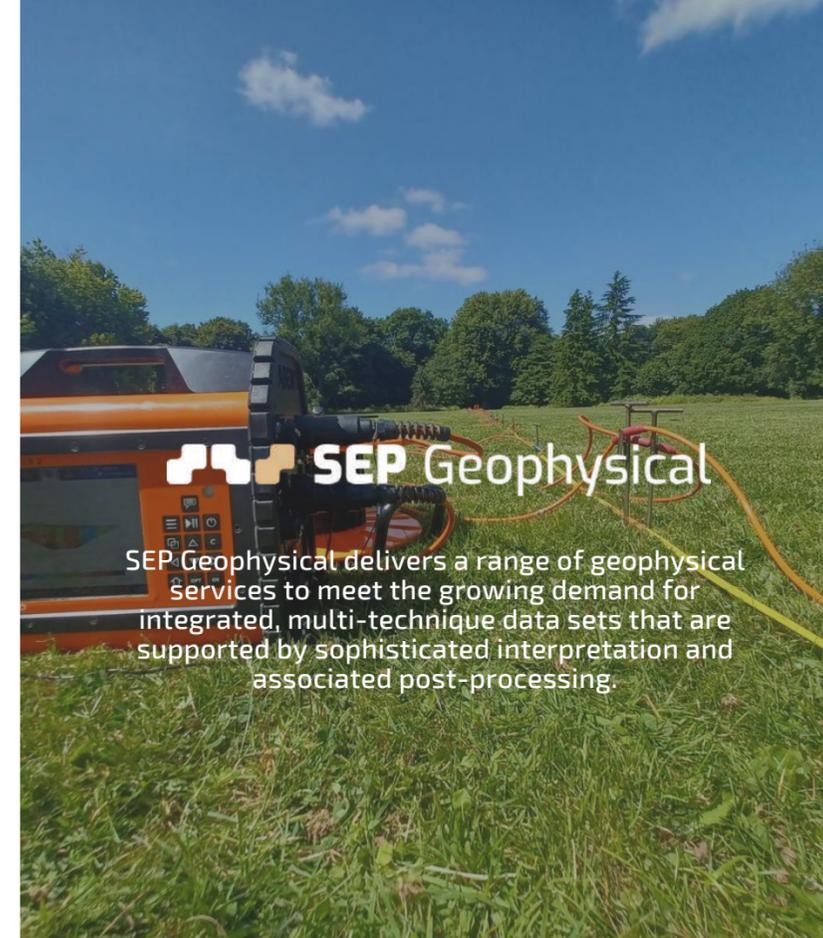
 SURVEY & ENGINEERING PROJECTS

Our end-to-end survey capability means that we can provide full turnkey services, from the initial project design and site surveys to final reports. Our experienced team has the knowledge and expertise to provide you with all the available options.



 SEP Hydrographic

SEP Hydrographic Limited was established in 2020 to meet the growing demand for a complete land and marine survey solution. Our leadership team benefits from more than 45 years of experience providing various marine survey services using the latest technology.



 SEP Geophysical

SEP Geophysical delivers a range of geophysical services to meet the growing demand for integrated, multi-technique data sets that are supported by sophisticated interpretation and associated post-processing.



 SEP Inspection

SEP Inspection delivers a range of inspection services across multiple sectors. We use advanced technologies such as thermal imaging and drones to provide accurate results quickly and cost-effectively.

# Core Business Areas

**We work with a variety of clients across the offshore renewables, subsea cables, ports and harbours and oil & gas industries.**

From single-vessel surveys to complex multidisciplinary surveys, our team is committed to providing a professional service that meets the needs of our clients.

Our resources and capabilities allow us to deliver services on small or large scale project with confidence. Our surveyors are qualified to meet industry standards and regulations throughout Europe, allowing us to provide services in any operational area with confidence.

We understand the importance of safety for you and your teams during operations, so we ensure all personnel are trained and certified in accordance with relevant national/international standards prior to mobilisation onsite.



# Combining 45 years of experience with the latest technology

**Our state-of-the-art technology and experienced team allow us to complete projects quickly and efficiently - no matter how challenging.**

Our clients include some of the largest and most diverse companies globally, covering various well-known developments. Our team have worked some of the largest offshore wind farms in the world, on behalf of internationally recognised organisations.

Our personnel have worked on both nearshore, small-scale pipeline and cable landing surveys, all the way through to multi-vessel, multi-disciplined offshore campaigns comprising thousands of line km of survey data.

We are committed to staying at the forefront of innovation and technology, continuously investing in our staff and equipment.

Our surveyors are equipped with the latest generation of survey and positioning systems, backed by experienced personnel who understand how to get the most out of them.



**Experience within SEP Hydrographic covers both pre and post survey and inspection of:**

- Offshore Wind Farms
- Subsea Cables
- Oil & Gas Assets
- Ports & Harbours
- Coastal Monitoring
- Utilities
- Bridges & Structures
- Dams
- Inland Waterways

Our senior management team have over 45 years of survey experience on a variety of intertidal, near shore and offshore marine operations for projects including; civil engineering, telecommunications, pipeline routes, inspections and a variety of oceanographic surveys.

# Geophysical Survey Services

**Acquisition of quality geophysical survey data can be a challenge. Our team have worked on various complex projects across the UK and northern Europe covering a range of techniques both land and marine-based.**

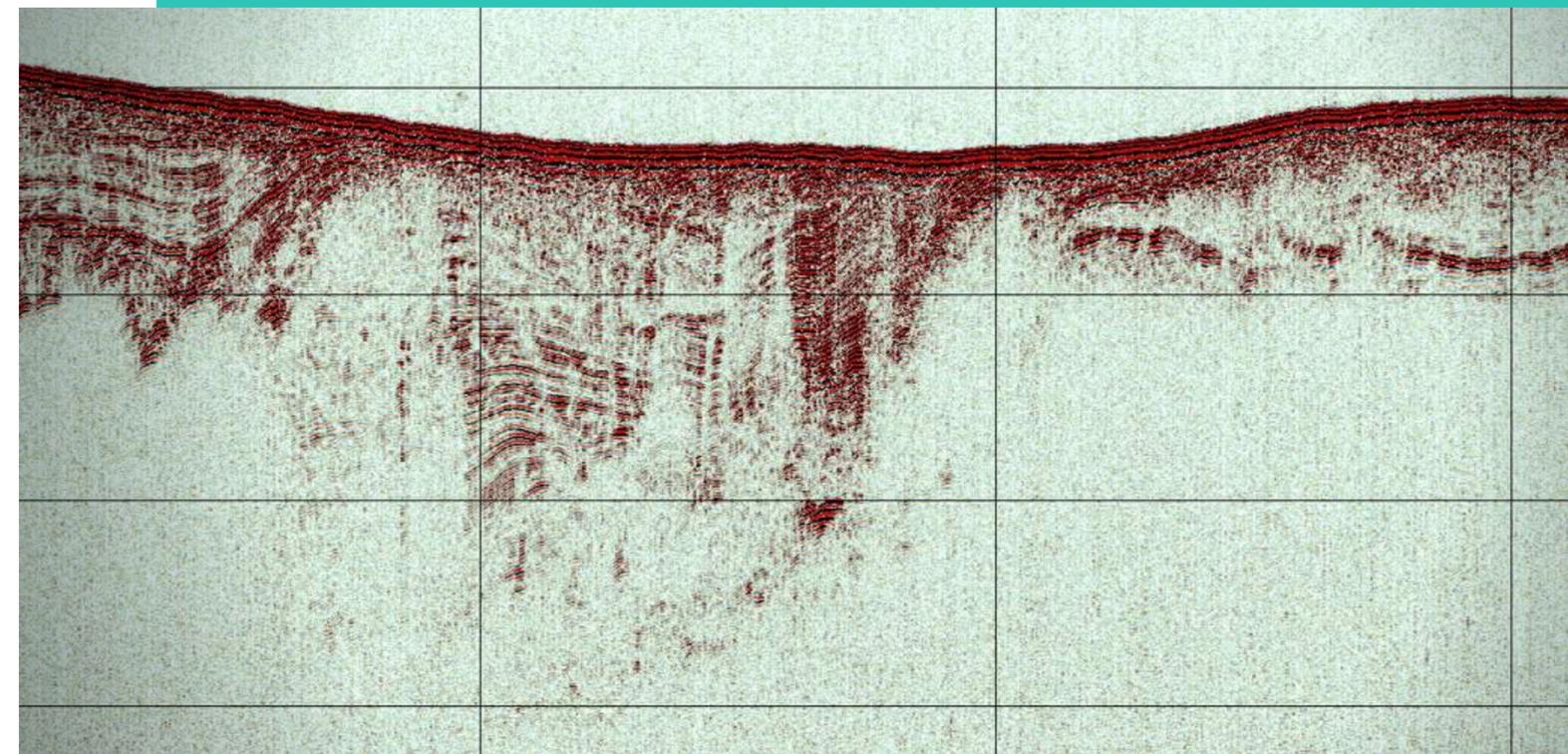
Our geophysical survey services include a range of land and marine techniques, combining sensors where feasible to create efficiencies in data acquisition. With a focus on the latest innovations from leading suppliers, our range of services includes:

- Cable and pipeline route surveys
- Offshore wind farm site surveys
- Pre-engineering surveys
- Geohazard surveys
- UXO surveys

From our inshore vessel Pulsar, we can mobilise a range of sensors simultaneously, chartering in larger vessels for more complex requirement.



**Our team have delivered complex geophysical survey projects for some of the largest offshore wind farms in the world.**





 **SEP Hydrographic**

**Unexploded mines and bombs deployed during World War II are still present in the subsurface and seabed around the UK, as well as other smaller ammunition, and they continue to pose a threat after decades of inactivity.**

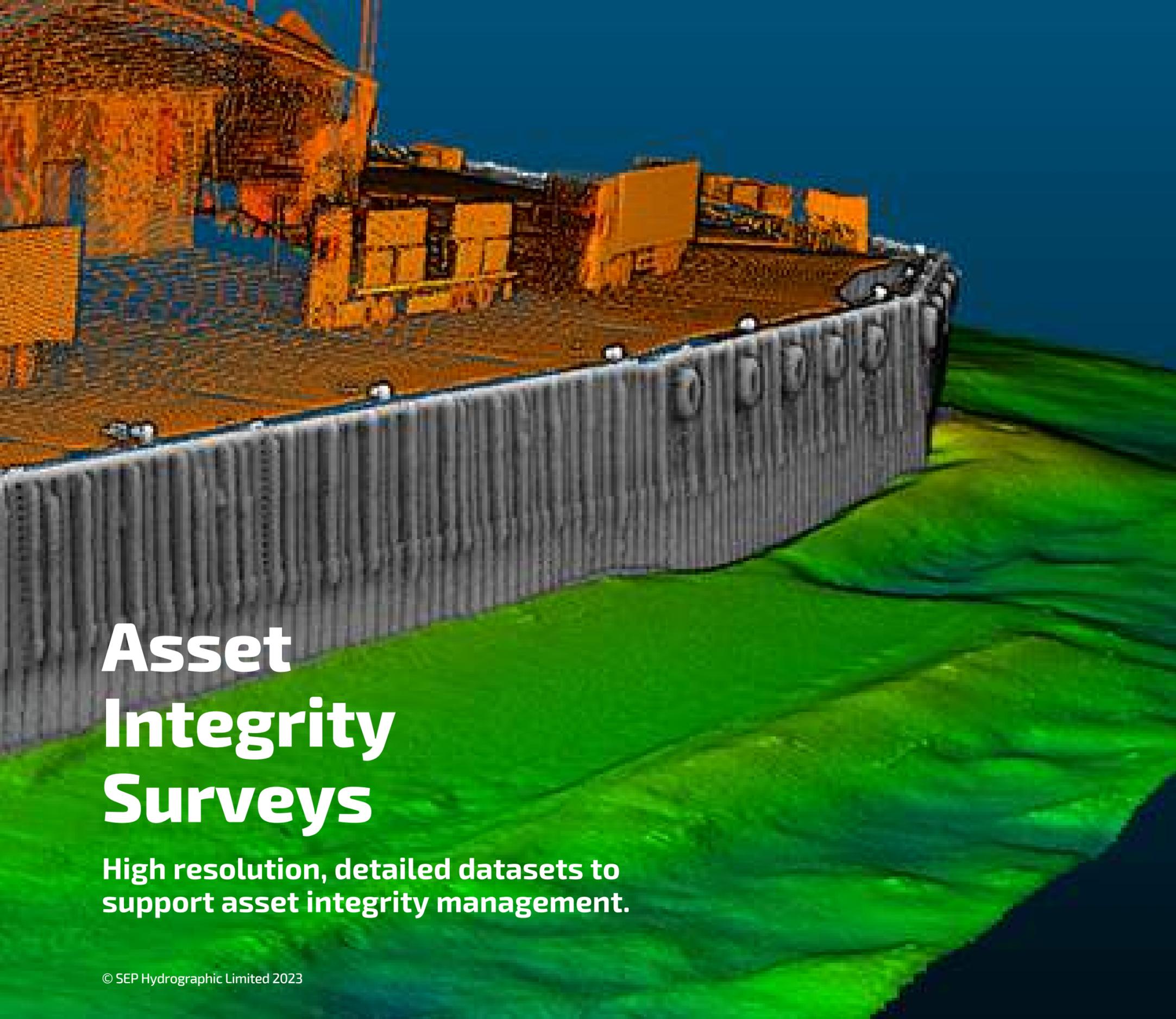
There are many challenges associated with UXO, starting with survey and identification through to clearance and disposal. From the perspective of a survey company, there are a few central challenges that we must overcome to deliver a quality survey result.

There is a drive for new and innovative UXO survey techniques to help to overcome some of the technical challenges while reducing the cost of data acquisition. Survey equipment such as the PanGeo SBI is used to complement traditional magnetometer acquisition, with benefits in non-ferrous UXO surveying as well as distinguishing targets in built-up areas.

At SEP Hydrographic, our team has decades of experience in UXO survey and has acquired, processed and interpreted thousands of line km of data. We work closely with trusted partners including PanGeo Subsea to ensure a turnkey UXO risk management solution.

# UXO Survey Services

**Unexploded Ordnance (UXO) around the UK continues to cause problems for site developers, asset owners and contractors, as well as local communities.**



# Asset Integrity Surveys

High resolution, detailed datasets to support asset integrity management.



**Backed by the latest in advanced survey technology, we combine multibeam bathymetry, 3D Scanning Sonar, Laser scan and photogrammetry data to provide a detailed picture of subsurface assets, both above and below the waterline.**

We provide a 3D perspective of assets that may have previously been inaccessible for efficient and accurate measurement techniques.

Most terrestrial point cloud data datasets are derived from LiDAR scans, acquired from aerial or land-based sensors. However, when considering subsea assets, visible light techniques such as LiDAR are generally unsuitable for use in shallow water environments, due to rapid optical attenuation and turbidity through the water column.

By merging marine and terrestrial survey techniques, we can produce high-resolution imagery of underwater structures, offering a cost-effective substitute for traditional methods such as diving or ROV inspection.

The result is an incredibly dense BIM-compatible dataset in comparison to traditional hydrographic surveys, which can then be brought into our accessible online viewer for further interrogation.

# Land & UAV Survey Services

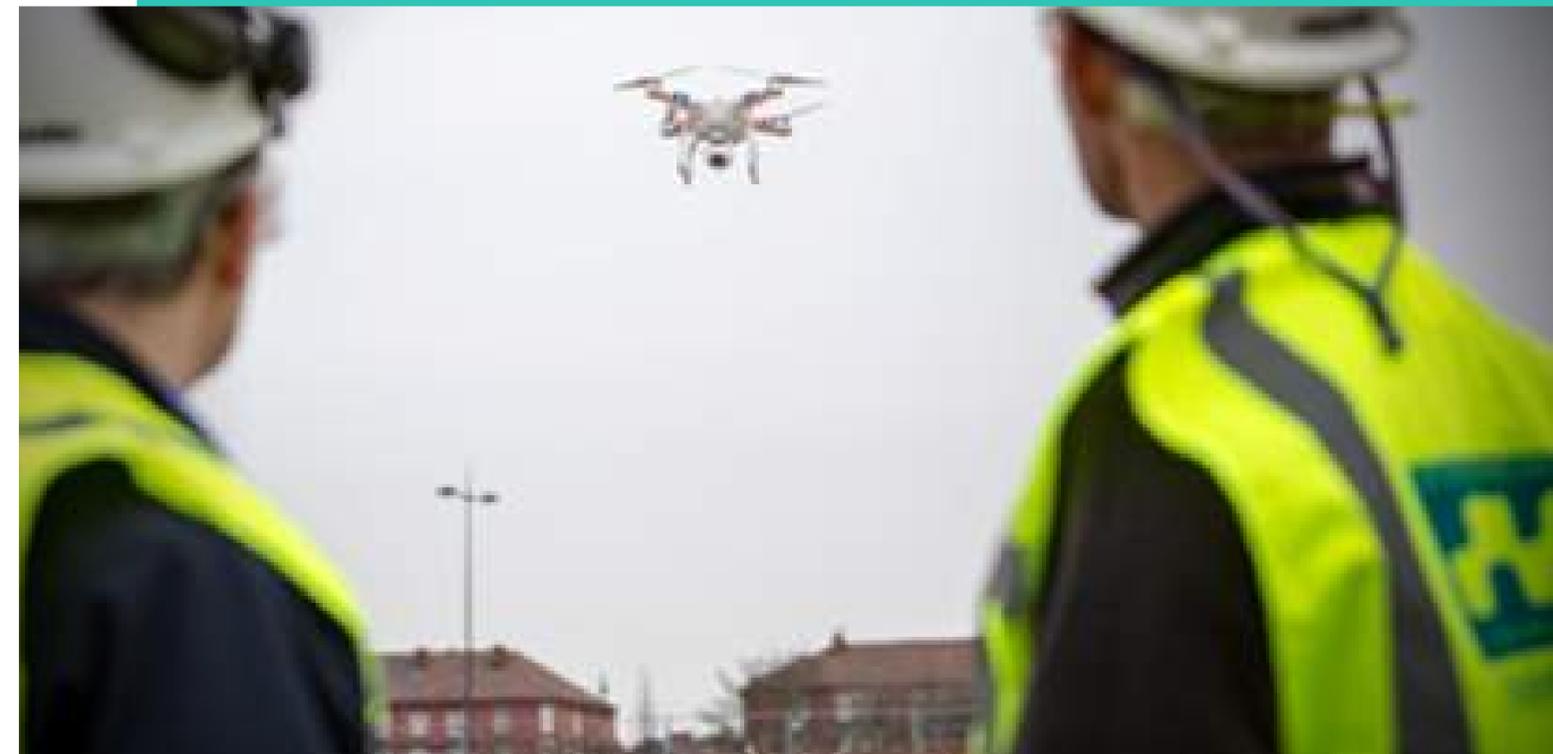
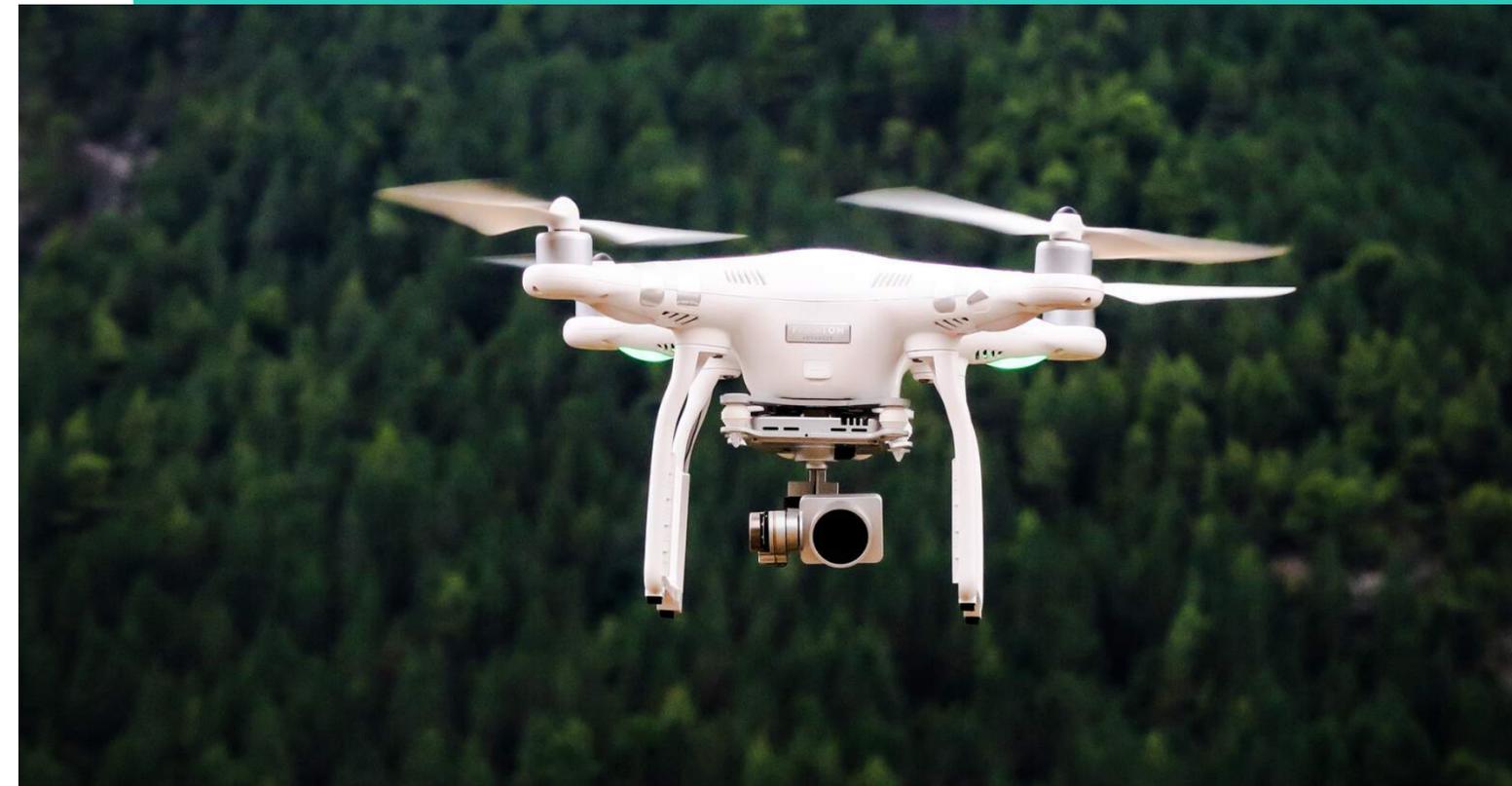
**Aerial surveying using UAVs offers rapid data acquisition and provides an efficient, safe solution to areas that are inaccessible using other techniques.**

Combining photogrammetry techniques with UAV LiDAR can give enhanced results across a range of applications from surveying a bridge deck to wind turbine inspections, drones make it easy to cover large or difficult-to-access areas in minutes. UAV survey data are acquired, processed and presented differently depending upon the project. Gathered data can be supplied in deliverable formats such as orthophoto, DTM, DSM, pointcloud, Revit surface and AutoCAD.

Our in-house staff are experienced surveyors who are professionally trained to and qualified to operate in the UK. Data collection for an extensive survey that would typically take a team of surveyors several days to perform can be achieved by UAV in a fraction of the time.

Combined with the right skill set and software, UAV drone surveys can acquire high-resolution data with sub-centimetre accuracy. Results can be faster and more cost-effective for Clients where repeat surveys are needed to monitor environmental conditions or provide situational analysis on an ongoing basis.

The SEP group of companies offer market-leading land survey services, including topographic surveys, laser scanning, CAD/BIM/Revit, Underground Utility, Utility Verification Surveys, Measured Building Surveys and Monitoring Surveys.



# Land Geophysics

**Using various geophysical techniques, our sister company SEP Geophysical delivers turn-key geophysical surveys for a wide variety of applications.**

SEP Geophysical was established in 2021 and is part of the Survey Management family of businesses.

We are a multidisciplinary geophysical company providing a comprehensive range of services to clients from various industries.

Our highly skilled and experienced geophysicists offer a wide range of geophysical services including the design, acquisition, processing and interpretation of data to deliver high-quality results that meet your specific application. Our team has a broad range of skills that are vital in delivering high-quality geophysical surveys.

We work with a wide range of clients from various industries including renewable energy, mining, oil and gas, archaeology, environmental, engineering and construction.

Our geophysical services cover a wide range of applications, including:

- Voiding, sinkholes, subsidence, karst and solution features
- Mine shafts, Adits or other mine workings
- Disused quarries /Borrow pits
- Rockhead profiling/engineering properties
- Faults and Fractures
- Underground storage tanks (UST's)
- Unexploded Ordnance (UXOs)
- Archaeology





# Drone Inspection Services

Your trusted partner for  
inspection solutions

 **SEP Hydrographic**

**Our sister company SEP Inspection is a comprehensive inspection service provider with expertise in solar farms, wind turbines and building inspections to specialised monitoring of oil & gas assets.**

SEP Inspection delivers a range of inspection services across multiple sectors. We use advanced technologies such as thermal imaging and drones to provide accurate results quickly and cost-effectively.

Whether you need a one-time inspection or ongoing monitoring, SEP Inspection will be there with quality services and accurate results to meet all your needs. We strive to be the go-to provider for inspection services, and our passion for customer service and quality will ensure that we exceed your expectations.

Our inspection services cover a wide range of applications, including:

- UAV (drone) inspections
- Thermal imaging inspections
- Visual RGB inspections
- Building condition surveys
- Solar PV farm inspections
- Wind turbine blade & structure inspections
- Oil & gas asset monitoring

# Pulsar

**Pulsar is a shallow drafted Cheetah Marine catamaran launched in 2006, and fully refitted during 2018 and acquired by SEP Hydrographic in May 2020**

## About Pulsar

MV Pulsar is a shallow-drafted Cheetah Marine catamaran launched in 2006. The vessel is powered by twin Mercury 60HP 4-stroke outboard engines which generate a cruising speed in excess of 18 knots.

The shallow draft and twin hull design make the vessel extremely manoeuvrable even at slow survey speeds as well as a stable survey platform, ideal for shallow water surveys.

Bespoke over-the-side mounts allow repeatable mounting of the survey transducers. The data collection equipment and operators are housed within the forward cabin area of the vessel providing a comfortable working environment.

Pulsar is permanently mobilised with a suite of high-specification equipment to carry out asset inspection surveys, including a high-resolution scanning sonar, marine laser scanner and multibeam echosounder systems

The vessel can be equipped with additional geophysical survey sensors which can be tailored to project requirements. Our advanced survey equipment is installed using custom-built over-the-side mounts, providing repeatability.

The survey equipment and personnel are housed within the forward cabin area of the vessel, providing a comfortable working environment. With a purpose-built trailer, the vessel is road-transportable, which enables a responsive and straightforward mobilisation.

Depending upon the survey site, deployment and recovery can be facilitated either using a suitable local slipway or vessel hoist or crane.

This responsiveness is particularly useful when dealing with an emergency survey, for example, following damage.



## Specifications

Launched	2006 - Refitted 2018	Operating Code	MCA Cat 3 - 20 miles from safe haven
Length (LOA)	7.2m	Life Saving	Complete lifejacket set, 4-man SOLAS B life raft, deck harnesses, MCA workboat watertight flare pack.
Beam	2.7m		
Draft	0.3m		
Cruising Speed	18 knots		

# Mersey Discovery

**Mersey Discovery is a 11.5m Redbay RIB with a shallow draft and a spacious, fully enclosed wheelhouse**

## About Mersey Discovery

The vessel offers a compact, stable yet capable platform for acquiring a range of geophysical and hydrographic data.

Equipped with the most up-to-date navigation, positioning and survey equipment and a highly experienced crew, Mersey Discovery has been used for a variety of projects including offshore windfarm surveys, seabed geophysical surveys, pipeline route investigations and port engineering works.

Mersey Discovery is capable of accommodating a full geophysical spread including side scan sonar, shallow sub bottom profiler (Innomar), Boomer sub bottom profiler, and magnetometer.

Mersey Discovery provides the perfect platform for any shallow water nearshore survey project, offering excellent stability and manoeuvrability in challenging conditions. With her experienced crew and comprehensive survey equipment, she is ready to meet all of your needs.

## Typical Survey Spread

- Applanix POS MV Oceanmaster
- NORBIT WBMS-bathy
- Edgetech 4125
- Innomar SES2000 Compact
- Boomer Sub Bottom profiler
- Sonardyne Mini-Ranger 2
- G882 Magnetometer (or TVG)



## Specifications

Launched	2021
Length (LOA)	11.5m
Beam	3.2m
Draft	0.45m
Cruising Speed	20 knots

## Operating Code

### Life Saving

### Engines

### Propulsion

MCA Cat 2 - 60 miles from safe haven

Complete lifejacket set, 8-man SOLAS B life raft, deck harnesses, MCA workboat watertight flare pack.

2 x Yanmar Diesel Inboard 380hp

Mer cruiser Bravo 1 Outdrive legs

# Contact us

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