

Hydrography, USVs & Regulations

James Williams | CEO | USS

Hydro 2025

Liverpool

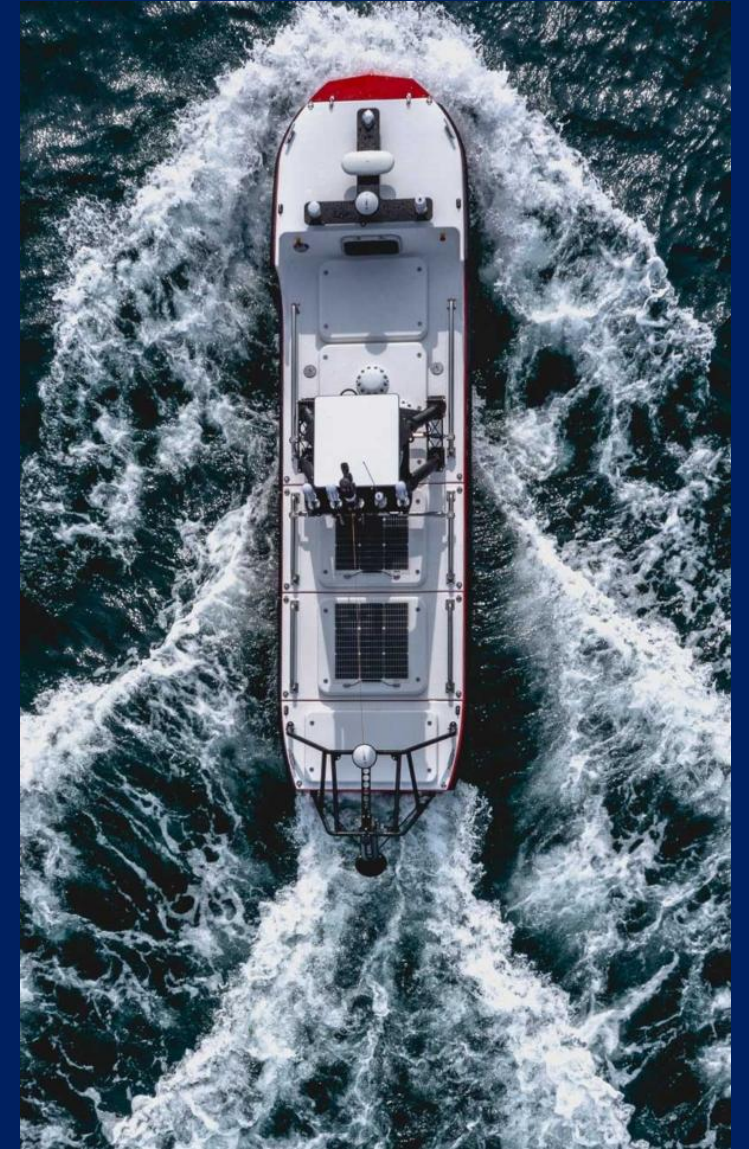
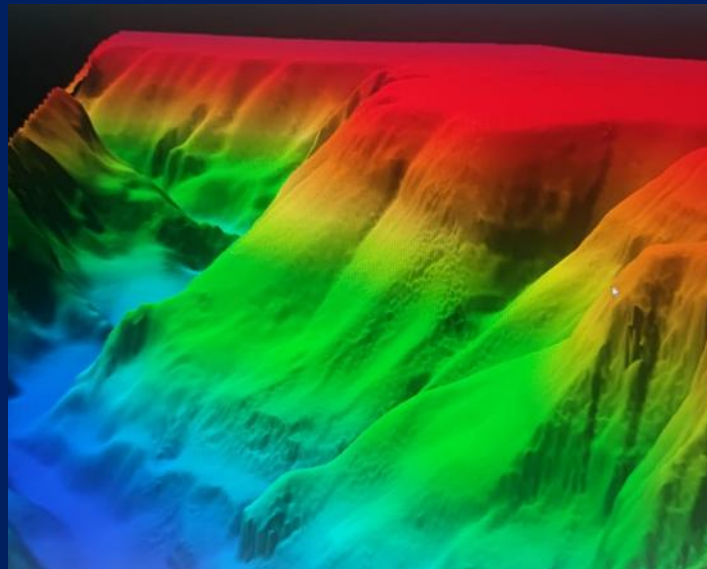
28th – 30th October 2025

USV SPECIALISTS: From Vessel Design To Data Delivery

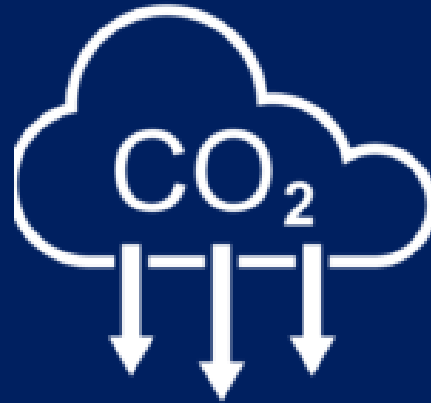
USS is among an elite, pioneering group of survey data providers using solely uncrewed vessels to execute efficient data acquisition projects.

We combine vessel benefits and sensor knowledge to plan efficient data acquisition missions, aiding Clients to meet project goals and sustainability targets within budget.

Supporting the Blue Economy and facilitating the wider industry adoption of uncrewed systems, USS is implementing disruptive technology to inspire the USV revolution and accelerate the industry's paradigm shift towards sustainable maritime operations.



USS BENEFITS: Greener, Safer, Economical Data Solutions



Lower environmental impact
compared to crewed vessels



Enhanced safety by reducing
personnel required in the field

USS is committed to delivering high-quality data to clients in the commercial maritime sector.

The USS scalable, uncrewed solution reduces barriers to entry for carbon-friendly USV data collection and offers clients new levels of accessibility to significant key survey benefits.



Increased efficiency from 24/7
operations



Value for money due to lower
requirement for resources

USS Facilities & Team

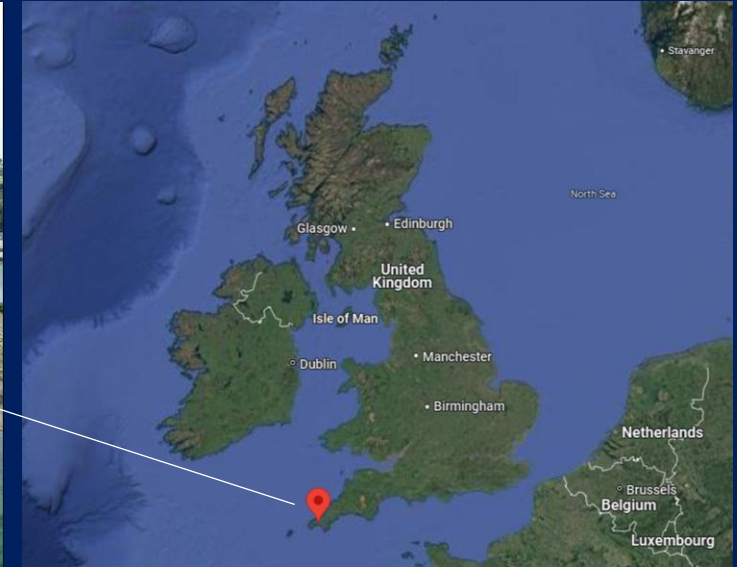
Site facilities

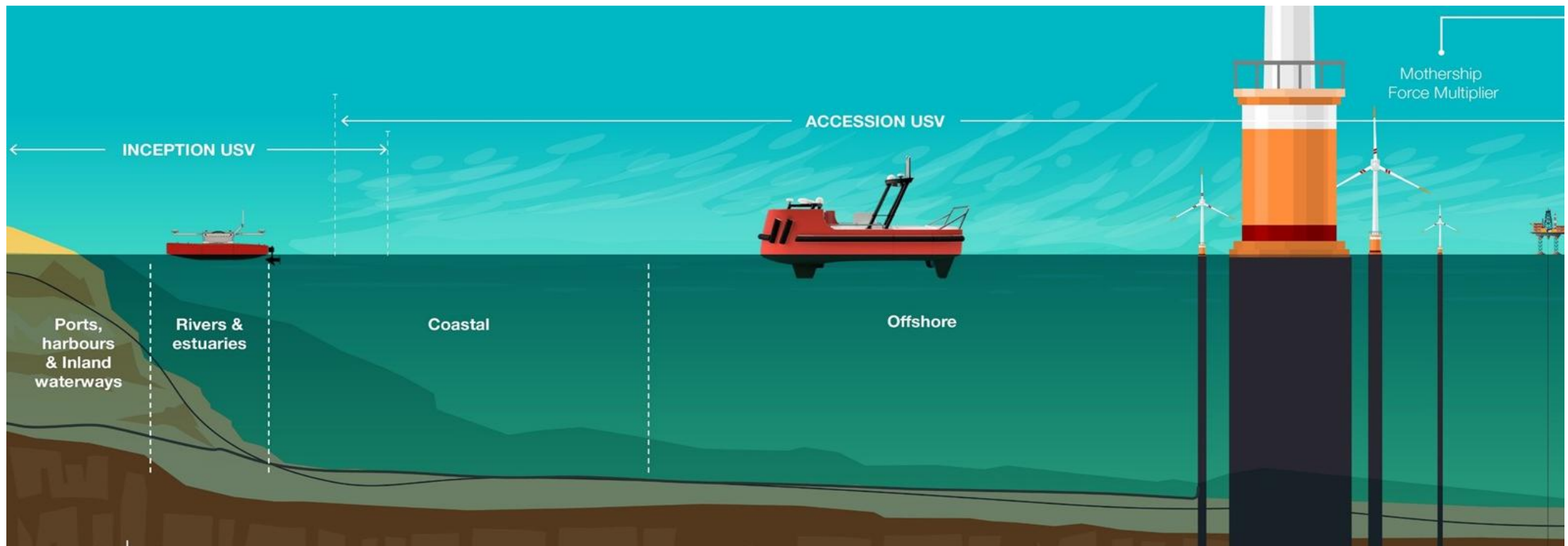
USS is located on North Quay at Hayle Harbour on the north Cornish coast with direct water access to the Celtic Sea and Atlantic Ocean.

Our facilities include a large workshop area as well as office facilities for project management and administration. We also have a bespoke Remote Operations Centre (ROC) with external power and communications backup.

USS Team

Our specialist team is made up of engineers, surveyors, managers and an executive team covering all aspects of Engineering, Operations, QHSE and Finance with experts in each respective field.





INCEPTION Class

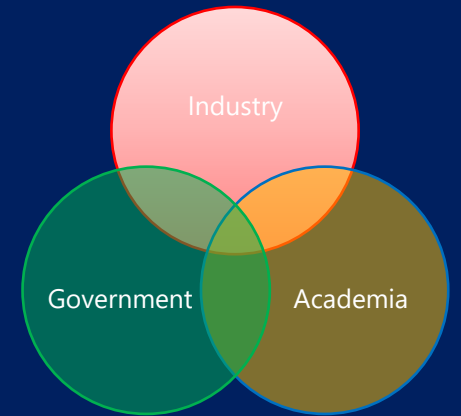
The Inception class USV is designed by USS for nearshore and inland waters Line of Sight (LoS) operations where rapid mobilisation and deployment of single sensor solutions increase efficiency and safety compared to small crewed vessels.

ACCESSION Class

The USS Accession class vessel is pioneering, eco-friendly, repeatable and reliable for offshore Beyond Line of Sight (BLoS) operations.

Meticulously designed for high performance, endurance, versatility and low emissions, the Accession excels due to its modular payload system, exceptional stability, and advanced hybrid battery systems, with diverse capabilities as a sensor agnostic platform for the integration of a vast array of mission-specific instruments.

Future Autonomous at Sea Technologies (FAST) Cluster



Vision

To accelerate and foster the development of sustainable future at sea technologies

Mission

To bring together leaders and experts in the field of autonomy at sea in a diverse triple helix cluster (Industry, Academia, & Government); focused in the Southwest UK and to inspire collaboration to champion and grow the autonomy sector.

- Triple helix cluster (wide-ranging industry component)
- Very strong cluster engagement – experts in respective fields of remote and autonomous vessels and operations
- **Largest marine autonomy cluster in the UK**
- SW focused but open to wider UK community – free membership
- **Gives a much bigger voice to SME's**

Subgroups in key areas:

**Surface Autonomy
Subgroup**

Remote Operations Centres
(ROC's) Subgroup

Subsurface Autonomy
Subgroup

Plymouth Autonomous
Technology Waterspace
Users Group (PATWUG)

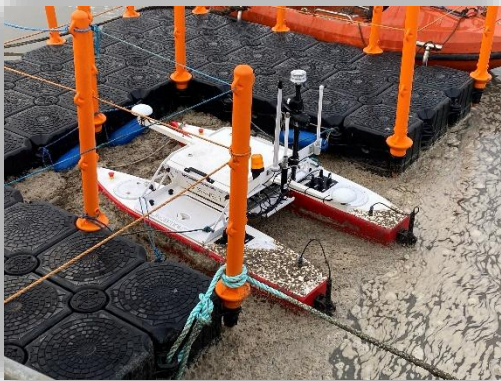
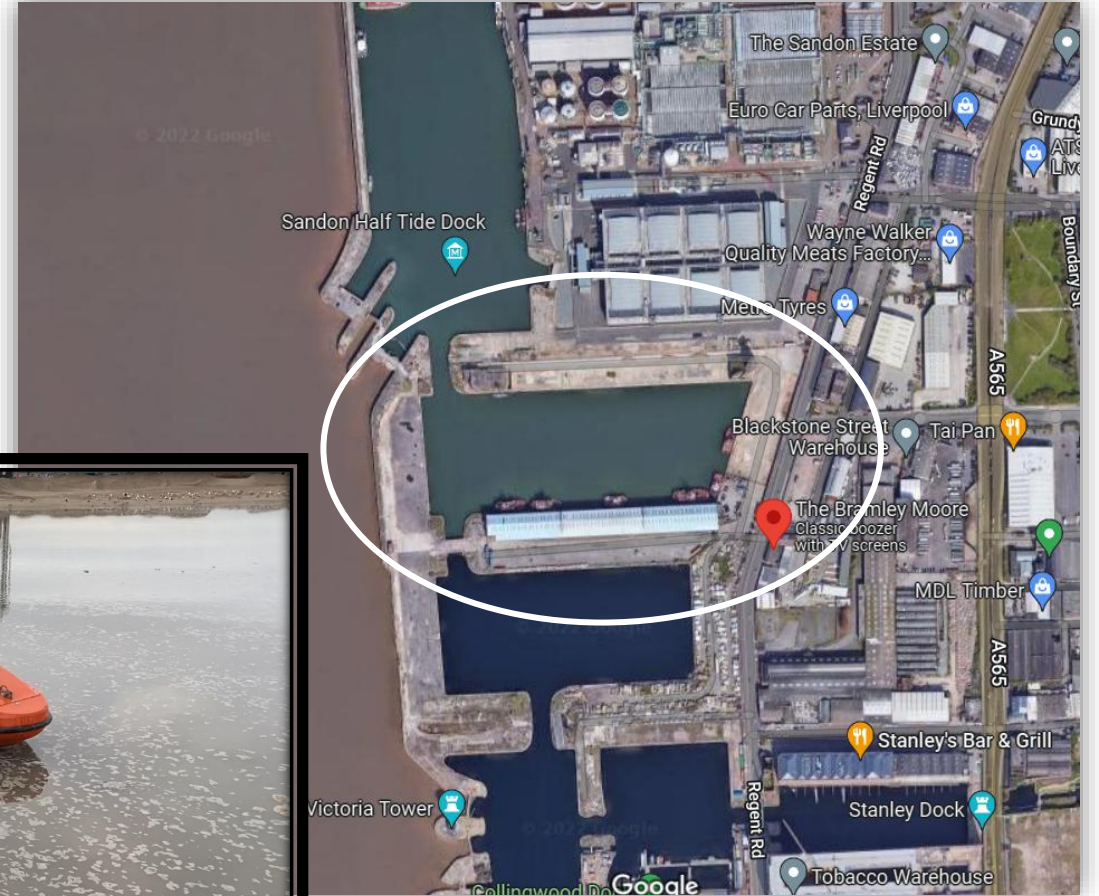


Hydrography & USVs



The People Project

Application: Conwy Bridge Scour Survey



USS
unmanned
SURVEY SOLUTIONS

Case Studies

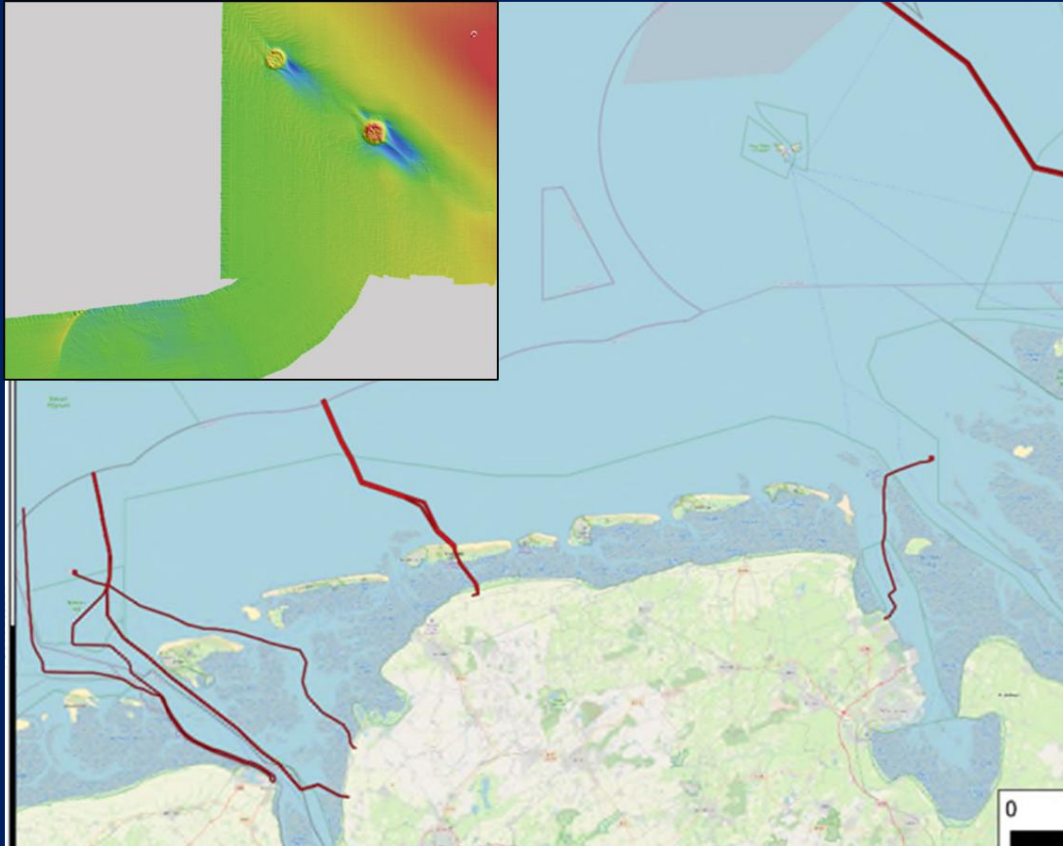
Accession Class

1. Offshore Wind
2. Offshore Oil & Gas
3. Offshore Dredging

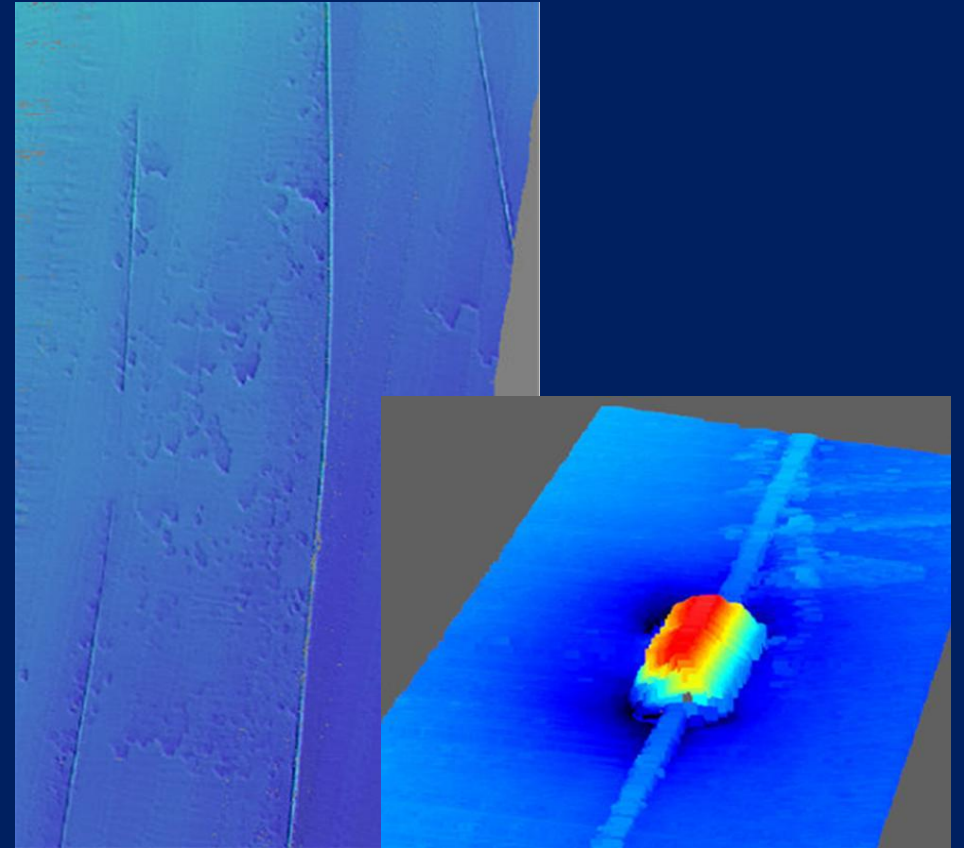


Hydrography: Case Studies

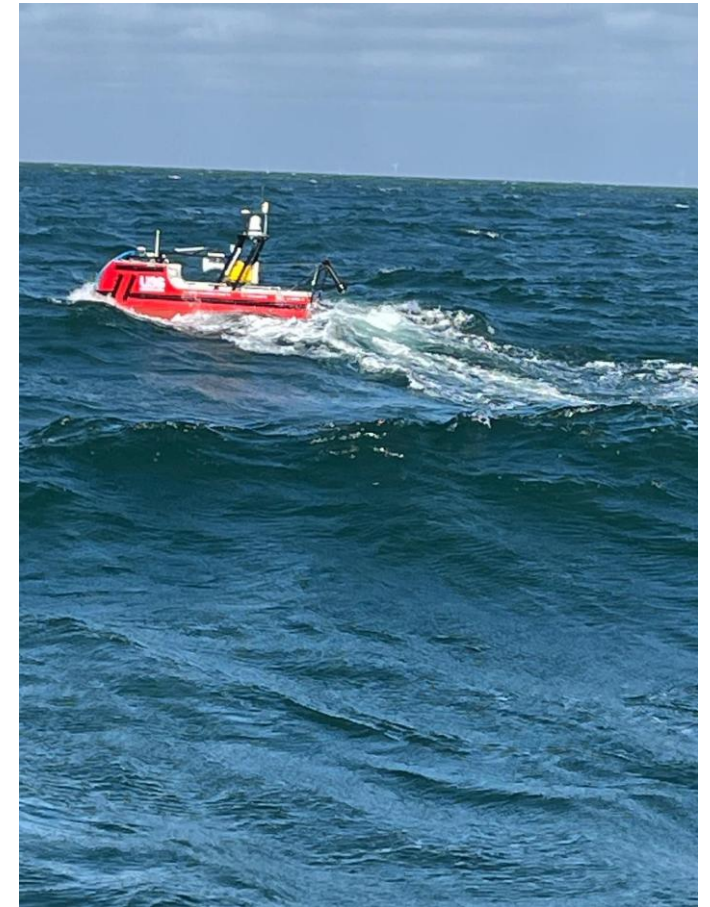
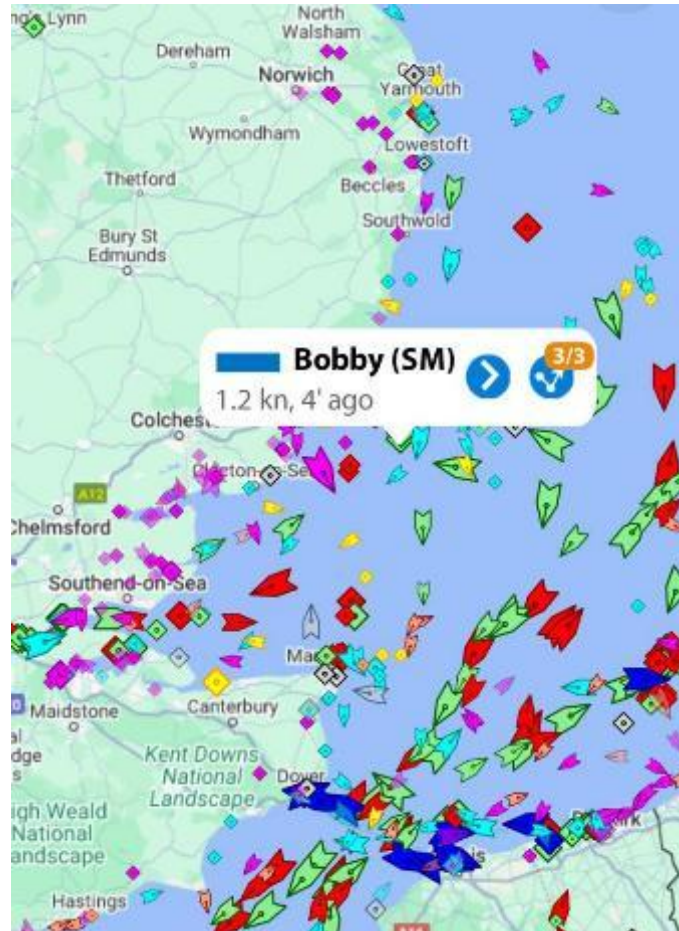
Offshore Wind Cable Route Surveys, Germany



Pipeline Route Reconnaissance Surveys, Nigeria

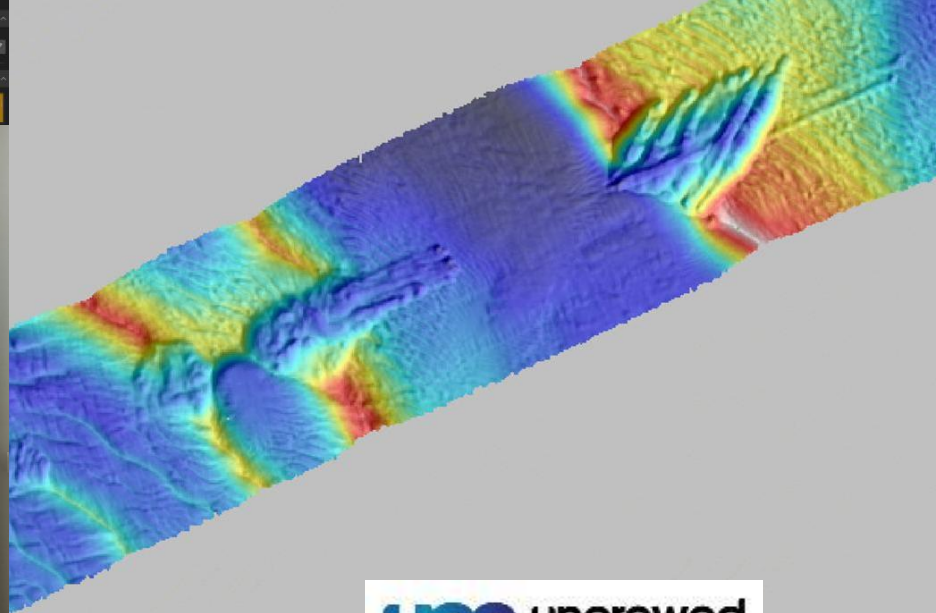
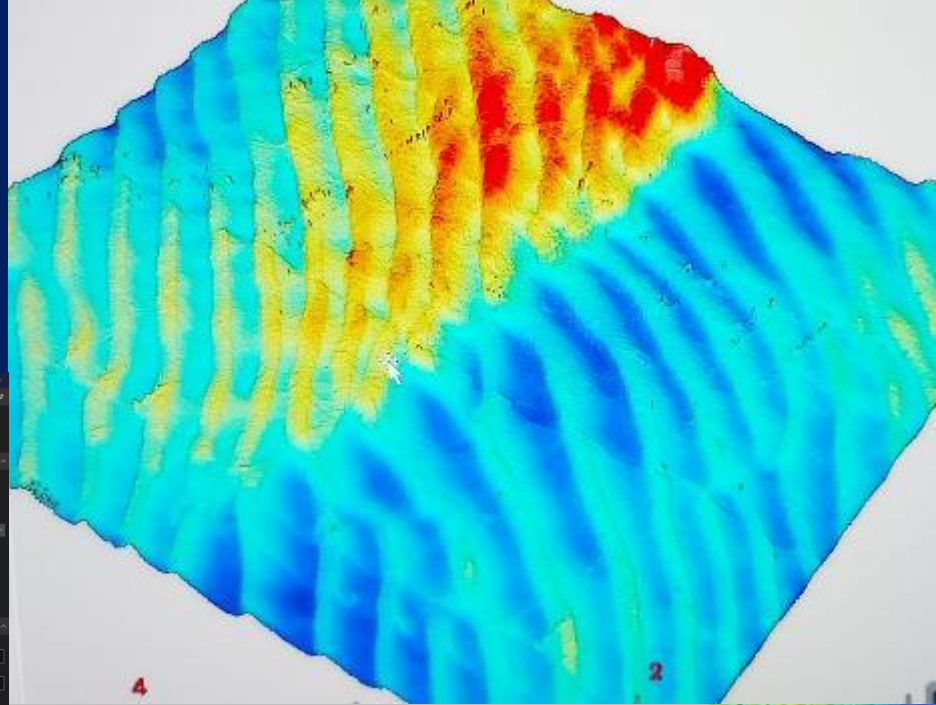
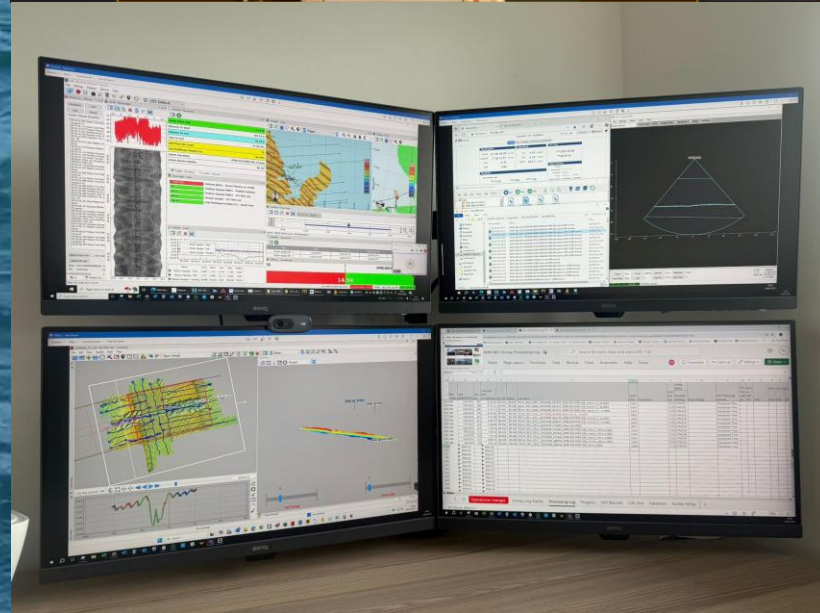
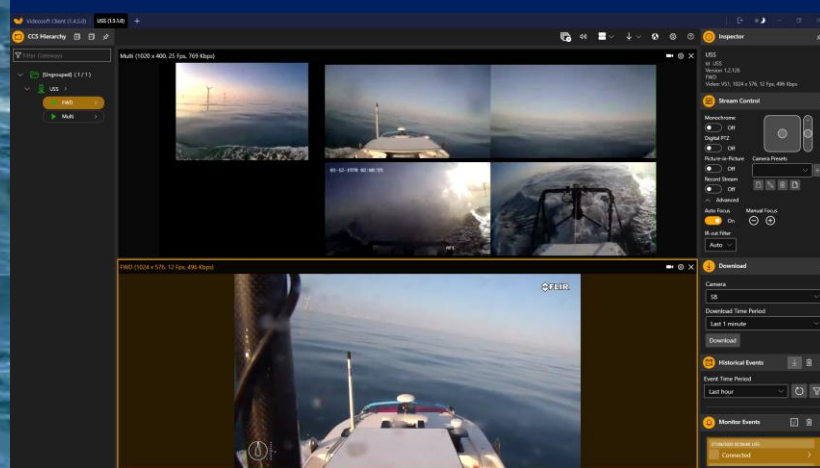


Offshore Dredging – East Coast UK - May 2025



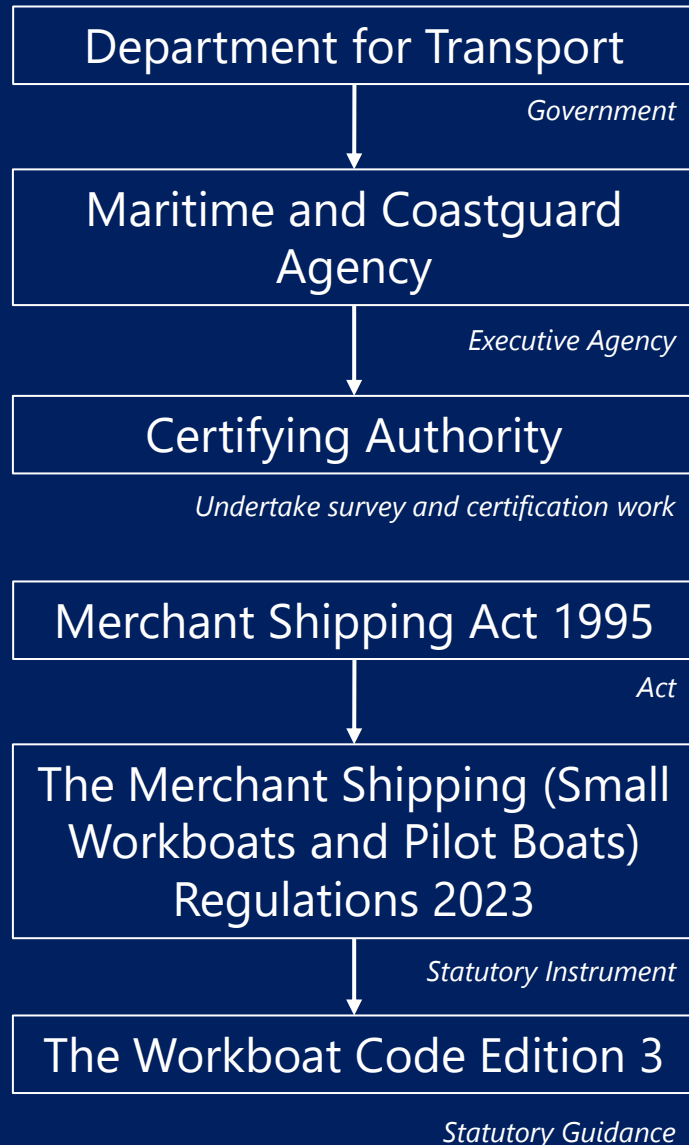


15 nm from coast –
wave height approx.
1.5-2m



UK USV Regulations

UK Legislation & Regulation Challenges



- In the UK, Legislation is the law passed by government, whereas Regulation is the restrictions imposed by government bodies to ensure people abide by the law.
- Primary Legislation are laws passed by parliament and referred to as ACTS
- The Department for Transport sets Primary Legislation where the MCA (which is an executive agency for the DfT) sets secondary legislation.
- Secondary Legislation are typically referred to as Statutory Instruments.
- In a legal context, regulations are a type of secondary legislation enabling Act of parliament
- The Merchant Shipping (Small Workboats and Pilot Boats) Regulations 2023 (is secondary legislation) which came into force on 13th December 2023
- The Workboat Code Edition 3 - The safety of small Workboats and Pilot Boats - a Code of Practice (WBC3) is also secondary legislation and is a revised framework for certification of commercial vessel with <24m Load Line Length (also effective from 13th December 2023)

The Workboat Code Edition 3

*Published 27 November 2023
Updated 22 January 2025*

Statutory Guidance

The safety of small workboats and pilot boats - a code of practice

@12th September MCA stakeholder event:

1 vessel obtained WBC 3 compliance. It is now being recertified due to refit. SO currently NO vessels are WBC3 compliant

- This Code applies to workboats that operate to sea, and to all dedicated pilot boats operating either at sea or in categorised waters.
- This Code applies to such vessels in commercial use, other than when in use for recreational, sport or pleasure, for which there are more appropriate codes.
- This Code applies to vessels operated by crew, and to vessels with no persons on board operated from a Remote Operation Centre.
- A vessel intending to operate as a Remotely Operated Unmanned Vessel shall meet the requirements set out in Annex 2 in addition to the relevant sections of the Code.
- Annex 2 provides additional requirements to be complied with for ROUV's of <24m Load Line Length operating as a workboat.

MGN 702

Published 05 August 2024

Amendment 1 Published 19 March 2025

Maritime autonomous surface ships (MASS) of less than 2.5 metres in length overall

@12th September:

23 vessels registered from 12 different companies

- This Marine Guidance Notice (MGN) explains a General Exemption which has been issued for Maritime Autonomous Surface Ships of <2.5 metres in length overall.
- This General Exemption enables eligible vessels to operate without certification issued by the Maritime and Coastguard Agency (MCA), or its delegates.
- This General Exemption does not exempt eligible vessels from all merchant shipping regulations or other maritime requirements.
- COLREG - Preventing collisions at sea
- Rule 5 requires that "every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

MGN 705

Published 31 December 2024

Remotely Operated Unmanned Vessels (ROUVs) of 2.5 metres to less than 4.5 metres in length overall

@12th September:

3 vessels registered from 4
different companies (now
increased to 4)

- This Marine Guidance Notice (MGN) explains a General Exemption which has been issued for Remotely Operated Unmanned Vessels of 2.5 to <4.5 metres in length overall.
- This General Exemption enables eligible vessels to operate without certification issued by the Maritime and Coastguard Agency (MCA) or its delegates.
- 3.8 An ROUV of 2.5 to <4.5 metres in length which is capable of operating at speeds exceeding 6 knots is not eligible for this General Exemption.
- 5.1 A condition of this General Exemption is for the vessel owner/operator to complete, sign and date a self-declaration form. The self-declaration form includes a requirement for the vessel owner/operator to undertake a hazard identification and for all identified hazards to be reduced to as low as reasonably practicable (ALARP).

Future

Legislation and Regulation

- MASS North Sea MOU
 - ✓ UK
 - ✓ Belgium
 - ✓ Denmark
 - ✓ Netherlands
 - ✓ Norway
 - ✓ France
 - ✓ Germany
- Primary legislation
 - ❖ Transport Bill delayed (2022) which included 'emerging technologies'
 - ❖ National Shipbuilding Office (NSO) pushing for changes
- Work Boat Code 3 review within 5 years from implementation (end 2028)
- FAST Cluster – Regular meetings and update



Thank you....questions

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