



Global Marine contracted by British Telecommunications (BT) to provide a turnkey solution

The Reaching 100% Programme, also known as “R100,” strives to broaden the accessibility of Next Generation Access (NGA) broadband infrastructure, aligning with the Scottish Government’s pledge to provide superfast broadband access to every premise in Scotland.

In pursuit of this objective, the Scottish Government secured the deployment of a NGA broadband infrastructure, ensuring coverage in areas previously lacking such broadband, with the capability of delivering download speeds of at least 30 Mbps.

Global Marine were contracted by British Telecommunications (BT) to provide a turnkey solution for a multi-cable installation in the Shetland Islands, Orkney Islands and West of Scotland, comprising a total of 16 new un-repeated optical fibre cables for installation in 2022. BT provided the cable system for the Scottish Government, as part of its wider R100 project through Openreach.

The solution required Global Marine to provide an end-to-end range of services encompassing all elements leading to installation including:

- Route engineering
- Marine survey
- Permits
- Route clearance
- Pre-lay grapnel runs
- Mattress installation over pipeline crossings with rock placement
- Cable installation including plough burial
- Post lay inspection and burial
- Providing detailed post installation information

C.S. Sovereign and Normand Clipper successfully executed the installation phase of the project operating in close proximity to both pipelines and rocky coastlines in high current areas.



**VESSEL: NORMAND CLIPPER
C.S. SOVEREIGN**

Location: North Sea
Length: 224 km



ACHIEVEMENT

Despite the challenges, the installation proceeded in line with the planned timings. The operation included 25 shore end landings using the main lay vessel (MLV), which were executed with minimal disruptions. This success was achieved by effectively utilising multiple resources from different areas of the business while maintaining a positive working relationship with our client throughout the project.

Global Marine took precautions to conduct installations outside of all bird and mammal breeding seasons. A comprehensive Benthic Survey was carried out on routes featuring benthic characteristics to prevent disruption to horse mussels, flame shell beds, kelp, maerl beds, and to minimize environmental impacts. Additionally, this survey contributed to advancing scientific understanding of these delicate habitats.

To safeguard seal breeding grounds, an expert was enlisted to ensure minimal disturbance. Global Marine engaged in thorough discussions with authorities to ascertain that installation methods at shore ends did not interfere with sand dunes or the machair vegetation growing on them.

KEY CHALLENGES

The remote nature of the landing sites, along with their sheer number, posed significant challenges for the team. Finding accommodation was difficult, often necessitating long days due to the travel required to and from the sites. This also complicated the logistics of getting equipment to the locations. Although GMG had the flexibility to relocate the MLV to different sides of an island to take advantage of favorable weather, the beach teams and their equipment couldn't adapt as easily.

Often, two landings were completed in a single day or on consecutive days, but the need to transport large equipment using public ferries imposed further constraints on the schedule.

The installation encountered two minor HSE issues, both managed by Global Marine. During the process, one unexploded ordnance (UXO) was discovered and safely exploded by the Ministry of Defence (MOD).



For further information on Global Marine please visit:
GLOBALMARINE.CO.UK or contact our sales team.

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ASSETS

The Normand Clipper was the main lay vessel (MLV) for this project supported by C.S. Sovereign completing PLIB.

Ship: The Normand Clipper is a DP-2 class vessel, capable of undertaking subsea cable installation, repair and maintenance projects.

The vessel is fitted with two main cable tanks and one spare cable tank, designed to carry up to 5,000 tonnes of telecoms cable. Deck equipment includes two cable engines, A Frame, tow winch, and a deep water plough with 3m burial capability.

The Normand Clipper has undertaken numerous charter contracts supporting a diverse range of offshore projects which include: Installation services in India, South East Asia and Japan. Turnkey solution for a multi-cable installation in the North sea, comprising a total of 16 new un-repeated optical fibre cables.

Ship: C.S. Sovereign is one of the most experienced offshore engineering ships of its kind in the world.

At 130 metres in length, DP2 C.S. Sovereign is capable of handling the wide variety of subsea tasks required by such diverse industries as telecommunications, oil & gas, and deep sea research.

C.S. Sovereign has worked on numerous projects, which include: Fibre to Judy in the North Sea providing installation services to the oil & gas market, SGSCS FOC installation in the Caribbean, as well as undertaking charter contracts supporting a diverse range of offshore projects.

Submersibles: Atlas is a 300Kw trenching remotely operated vehicle (ROV) designed for intervention, trenching, umbilical and power cable maintenance, post lay and inspection roles. With 400Hp of installed power Atlas ROVs have substantial intervention capabilities, and an operating depth range up to 2,000 metres.

Hi-Plough, has been designed to operate to depths of 1,500 metres and is capable of installing cable, repeaters and cable splice boxes. The plough is equipped with a cable tracking system and forward obstacle avoidance sonar.



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