



Global Marine contracted by BT for North Channel fibre optic cable installation

Global Marine were contracted by British Telecommunications (BT) to provide a turnkey solution for the installation of two new unrepeated fibre optic cables crossing the North Channel between Scotland and Northern Ireland. Scot-NI 3 connects Portpatrick to Donaghadee (42km) and Scot-NI 4 connects Girvan to Larne (85km).

The Scot-NI 3 & 4 cable systems has replaced the Scot-NI 1 & 2 cable systems, respectively. The original Scot-NI cables have been in service from the late 1980s and early 1990s and have come to the end of their design life.

The project was managed and completed in-house, including the Desktop Technical Specification (DTS) and Marine Route Survey, which included a UXO magnetometer survey.

The project involved obtaining necessary permits, selecting and developing the route, and purchasing approximately 130km of cable. The cable was loaded at Rognan, Norway, from Nexans.

A swim survey was conducted across Beaufort's Dyke using a Work-Class Remotely Operated Vehicle (WROV) ahead of the installation. The installation was completed using the vessels Normand Clipper and C.S. Sovereign, with Global Marine managing all contracted survey and shore end operations.

PROJECT HIGHLIGHTS

The team successfully ploughed through the majority of the Beaufort's Dyke munitions dump without encountering or detonating any unexploded ordnance (UXO).

Multiple resources were utilised from different areas of the business, ensuring a comprehensive and coordinated effort.

The project was completed whilst maintaining a positive working relationship with the customer throughout the project, ensuring clear communication and collaboration.



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

Location: Irish Sea

Length: 127 km

Burial Depth: 1m

TECHNIQUES USED

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
- Marine permits
- Route clearance
- Pre-lay grapnel runs
- WROV pre-installation survey
- Cable installation
- Plough burial
- Post lay inspection and burial
- Providing detailed post installation information

Normand Clipper and C.S. Sovereign, experienced offshore engineering vessels, successfully executed the installation phase of the project operating in close proximity to both pipelines and through a munitions dumping ground.

KEY CHALLENGES

The project faced several key challenges, including installing through Beaufort's Dyke, a known UXO dumping ground. To mitigate risks, a UXO survey was completed during the marine survey, a UXO advisor was onboard for the entire duration of the cable lay, and a WROV pre-install survey was conducted.

The Irish Sea, with its ongoing military training activities, posed a risk of encountering modern UXOs. Additionally, the vessels contended with high currents at various locations along the route and adverse weather conditions.

The presence of fishing gear also added to the complexity of the installation.



For further information on Global Marine please visit:
[GLOBALMARINE.CO.UK](https://www.globalmarine.co.uk) or contact our sales team.

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ASSETS

The Normand Clipper conducted the main installation with the C.S. Sovereign completing PLIB, along with the Larne shore end pull in, following earlier lay down by the Normand Clipper.

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.

Ship: The Normand Clipper is a DP2 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.

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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