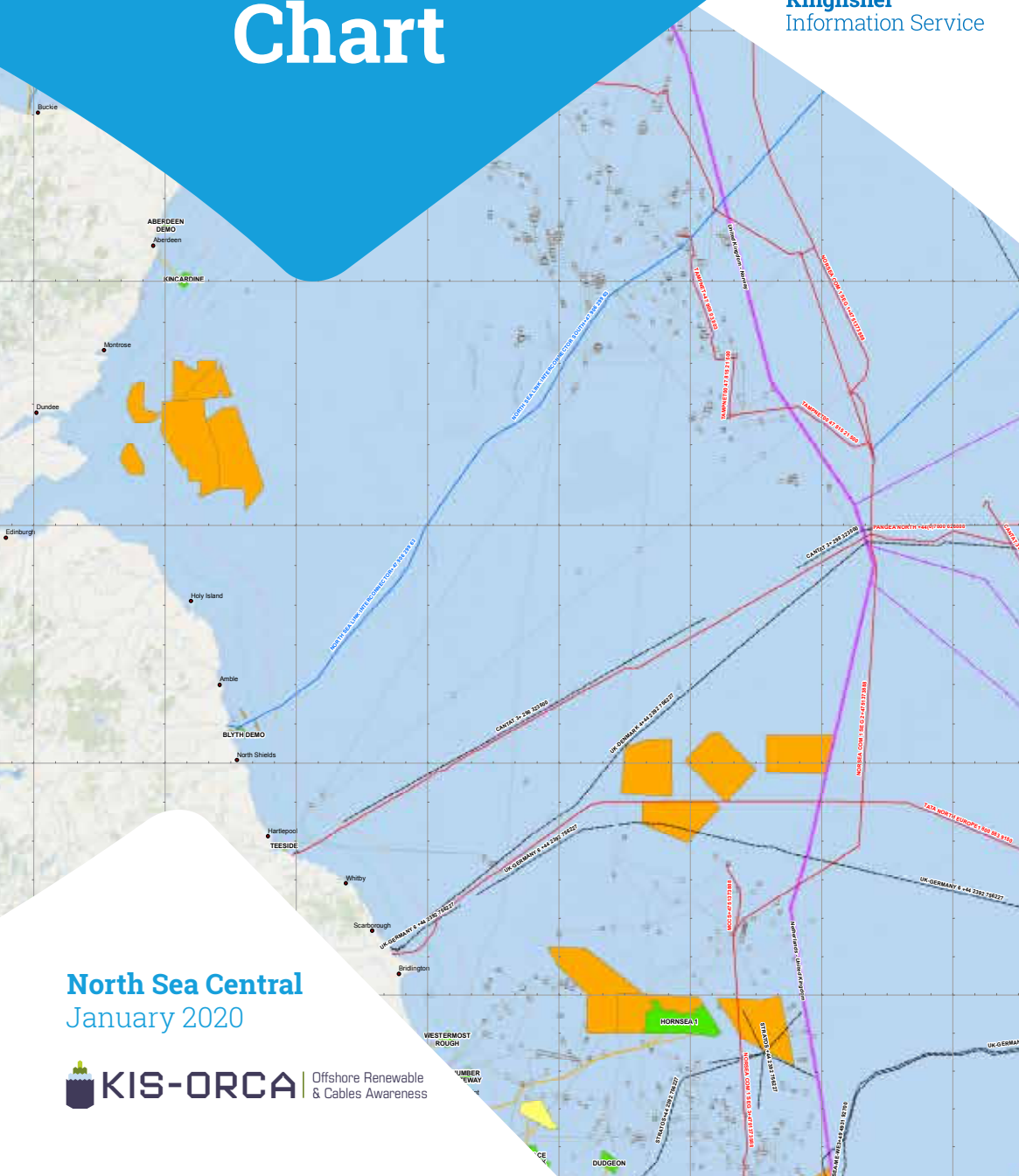
Kingfisher **Regional Chart**

seafish
Kingfisher
Information Service



North Sea Central
January 2020

KIS-ORCA | Offshore Renewable & Cables Awareness

Date:	January 2020
Projection:	WGS 1984 World Mercator
Spheroid:	GCS WGS 1984
Datum:	D WGS 1984
Scale:	1:1,500,000

This data is issued as a guide only. Seafish, cable / structure owners and Distributors accept no responsibility for any inaccuracies however caused. Please be aware that other structures & cables may exist in addition to those shown on this chart.

Cables

- Telecomms
- Power
- Out of Service
- Renewable Line

Renewables

- Active Wind Farm
- Under Construction Wind Farm
- Proposed Wind Farm

Miscellaneous

- Oil and Gas Feature
- Surface Feature
- Subsurface Feature
- Oil and Gas Pipeline
- UK Exclusive Economic Zone
- World Maritime Boundaries
- 6 Mile Fishing Limit
- 12 Mile Fishing Limit

Emergency procedures

1. If you suspect you have snagged a subsea cable or renewable energy structure, DO NOT endanger your vessel and crew by attempting to recover your gear.
2. Carefully plot your vessel's position as accurately as possible.
3. Advise the Coastguard of your situation, and call the 24 hour Emergency Number and state that an incident is occurring concerning a subsea cable or renewable energy structure.

Compensation for loss of fishing gear, will ONLY be considered, if you have up to date KIS-ORCA data displayed on your fishing plotter

Kingfisher **Regional Chart**

Subsea Cables and Renewable Energy Structures

The KIS-ORCA Project

The Kingfisher Information Service - Offshore Renewable & Cable Awareness project (KISORCA) is a joint initiative between European Subsea Cables Association (ESCA) and RenewableUK and is being managed by the Kingfisher Information Service of Seafish.

Offshore wind farms, renewable energy structures and subsea cables are increasing in number around the shores of the UK. The potential risks these structures may cause to fishermen is significant and the KIS-ORCA project aims to ensure these are managed in a responsible way.

It is against the law to wilfully damage a subsea cable. To enable fishermen to continue to work safely in the vicinity of subsea cables and renewable energy structures, KIS-ORCA provides fishermen with information and accurate positions of all these offshore structures.

KIS-ORCA information is made available as fishing plotter files and awareness charts for use on vessels and on www. kis-orca.eu, where information may be viewed and downloaded.

Use of KIS-ORCA Data

KIS-ORCA data is available free of charge to skippers and includes Northern European cables and UK renewable energy structures. This includes the structure and cable positions and essential attribute information, such as the name and emergency contact number.

The data is converted by Kingfisher into the most popular fishing plotter systems, including: Olex, Maxsea, Sodena, Transas Navifisher, TMPlanner/ Quodfish, Penta+, SIS Microplot and Litton Fishmaster. KIS-ORCA data is easy to install on these systems and is displayed as an information layer.

KIS-ORCA updates are provided annually in January and are distributed free of charge to the fishing industry by the Scottish Fishermen's Federation (SFF), the National Federation of Fishermen's Organisations (NFFO) and Kingfisher. From www.KIS-ORCA.eu you are able to view an interactive Google map and download fishing plotter files and awareness charts.

KIS-ORCA data is easy to install and installation instructions are available at the following fishing exhibitions:

15th – 16th May 2020 (Skipper Expo - Aberdeen)
18th – 21st August 2020 (Norfishing - Trondheim, Norway)

Dangers of Renewable Energy Structures & Cables to Fishing

Renewable Energy Structures and Subsea Cables are a hazard and fishing over them should be avoided at all times. Heavily armoured cables used within the subsea cable and renewable energy industry are very strong and have high breaking strains, sometimes over 70 tonnes and can do extensive damage before they give way. Most modern subsea cables carry high voltages which could prove lethal if attempts are made to cut them.

Fibre Optic cable consists of an inner optical core encased within a copper clad high tensile steel wire rope insulated with polythene. In water less than 1500 meters deep, protection is added against fishing and anchor damage in the form of external steel wire armour.

Due to the severe environmental demands placed on submarine cables, a lead-alloy sheath is often specified because of its compressibility, flexibility and resistance to moisture and corrosion. The sheath is usually covered by a number of outer layers, comprising a PE or PVC jacket and metal wire armouring.

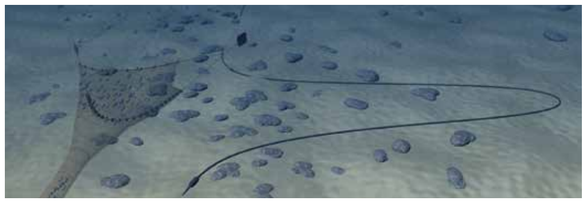
Cable Burial

Submarine cables have been laid on the seabed since the 1850's. In most cases recently installed cables are buried beneath the seabed, unfortunately there remains a percentage of cables unburied. Cables can be scoured out by tides and currents or moved by anchors and fishing gear. Therefore cables that were considered safe from subsea activities at the time of installation may become partially or totally unburied and could present a serious risk to fishing activities. Please exercise extreme caution when fishing in the vicinity of submarine cables.

Cables as Potential Gear Fasteners

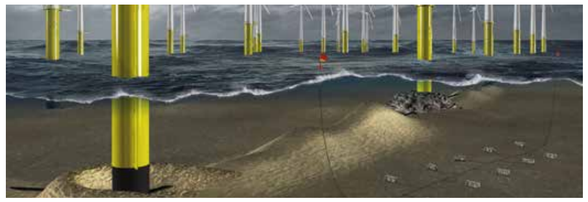
As a result of movements of the seabed the cables may occasionally be spanning hollows in the sea bed. Also where a cable repair has been carried out, although every effort is made to have it fall back flat on the bottom, it can sometimes finish with a bight of cable standing proud of the seabed which is easily picked up or fouled by a trawl door.

Cable Repairs



Further hazards to fishing gear are the repairs to the cables called FINAL SPLICE BIGHT. After a repair has been completed by splicing two ends together, the cable vessel has a large section or bight of wire leading from the seabed to the ship. This is held onboard by rope stoppers, then the procedure is simply to slip both stoppers and lower the bight of cable back onto the seabed. Burial of repairs are often more difficult, therefore the risk of contact is increased. The Final Splice Bight is laid on the seabed at right angles to the cable route. The crown of the bight may be up to 1 x water depth from the charted cable route.

Wind Turbines and Foundations



As wind turbines get larger and are deployed in deeper waters, a range of different foundation types may be encountered such as monopole, jacket, gravity base and suction bucket. In some cases multiple foundation types may be used within a single site. In all cases it is likely that scour holes will form around the foundation base, the depth and extent being dependent upon a range of factors including seabed type and current strength and direction. Scour protection in the form of rock dumping or cable mattresses is often used around the base of the foundations which may present a snagging risk. During the operational phase of a wind farm, an operator may request a 50m advisory safety zone around each structure.

Inter Array Wind Farm Cabling

The inter array cables interconnect the turbines typically in radial strings going to the offshore substation platform. The issues associated with these are largely the same as per cable burial. Each turbine will usually have up to two cables entering the foundation structure at the seabed through a protective tube. Typically the tube end has a bellmouth at the seabed to aid alignment and pulling in of the cables. Whilst the cables may have been jetted in or ploughed as close as practical to the foundation, cables may not be fully buried and may also become exposed by scour holes forming. In these circumstances scour protection in the form of rock dumping or cable mattresses may be used. Cables, albeit close to the foundation, may present a snagging risk to anchors and/or trawled gear.

Reducing the Risks whilst Fishing

To reduce the risks of fishing near offshore structures, it is essential to be up to date with KIS-ORCA information. KIS-ORCA information is easy to install on your vessel's fishing plotter and ensures skippers are able to make informed decisions for their safety.

The closer to the surface a subsea cable is lifted when fouled by fishing gear, the more danger there is to the fishing vessel. In the interests of fishing safety and to prevent damage to subsea structures, fishermen are advised to exercise caution when fishing in the vicinity of subsea cables and renewable energy structures. Loss of gear, fishing time and catch can result if a trawler snags a subsea structure and there is serious risk of loss of life.

If it is thought prudent to slip, or cut your fishing gear in an attempt to clear a subsea structure, always lower the gear to the seabed first. Never attempt to slip anything bearing excessive weight.

Claims for loss of gear should be made to the appropriate authority within 24 hours of arrival in port. Full particulars of the incident should be given and full details recorded in the vessel's official log, date and exact time, the vessel's position (VMS if suitable), depth of water and a description of the cable if sighted.

Claims for loss will only be considered if current KIS-ORCA data is installed on your vessel's fishing plotter.

Contact us

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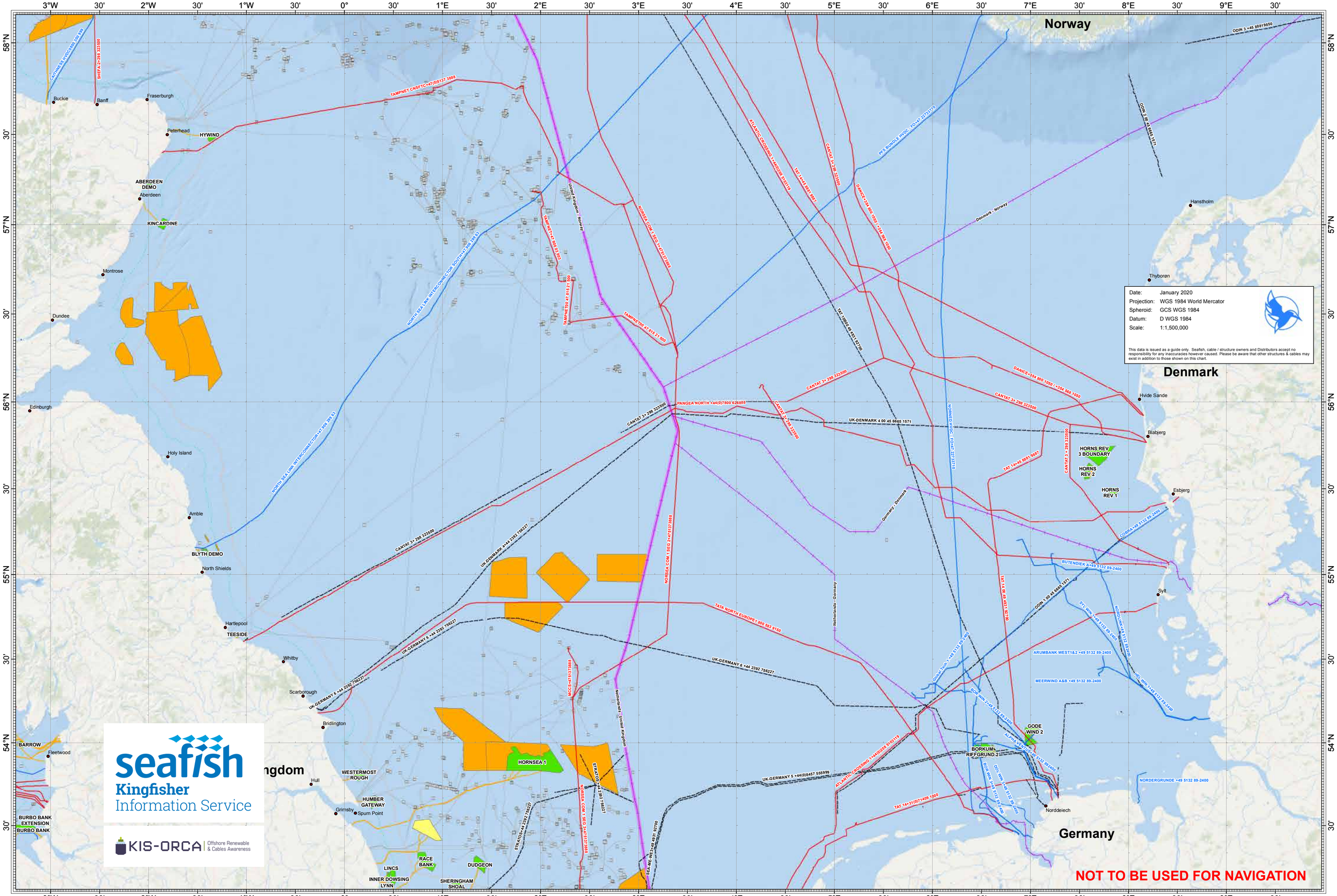
www.kingfishercharts.org
www.kis-orca.eu

KIS-ORCA Offshore Renewable & Cables Awareness

Stay up to date – always ensure you have the latest Kingfisher Bulletin and offshore fishing plotter data on-board

North Sea Central 2020



PLEASE KEEP CLEAR OF AND DO NOT DAMAGE SUBSEA CABLES

THESE CABLES CARRY HIGH VOLTAGES AND CAN BE DANGEROUS TO LIFE

IT IS AN OFFENCE TO WILFULLY DAMAGE SUBSEA CABLES