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INTRODUCTION

Let me make a few personal comments on why we started this project.

I used to sail the North Sea with my father when I was young. It was lonely and barren when you were out of sight of the coast. Of course, many ships, but that was all. Just a normal sea. Things could not be more different now. Not only would we not be able to take the same trips because you are not allowed in the areas with oil and gas platforms and wind farms, but most of the time, there would be some structure in sight. On a clear night, it is a sea (pun intended) of red blinking hazard lights. In 2030 65% of the North Sea will be an industrial zone. Over 70% of the electricity for countries surrounding the North Sea will be generated by the massive offshore wind parks. Over 90% of European helicopter traffic is dedicated to the offshore industry, and aviation plays a huge part. The investments are beyond belief. Each year billions of Euros are invested in building a new energy infrastructure for the second half of this century. There are ships costing billions of dollars at work. **The North Sea is the biggest work site on the planet.** As you will see, this building work plays a major role in this project.

The covered area is also the most densely used sea in the world. Wind parks, oil and gas extraction platforms, extremely dense shipping, extensive fishing, port anchor areas, and sea lanes have their hard-coded boundaries. Not a centimeter is just 'sea'. It is all designated for a specific use. It is amazing fish still find a place to live there.

That is why we believe a scenery covering the North Sea, the Channel and the Irish sea makes sense.

CREDITS

3D Modelling, animation and texturing: Christian Bahr
 Additional models: Riccardo Scarchini
 Documentation: Mathijs Kok (Aerosoft)
 Marketing: Vanessa Quandt (Aerosoft)

Video: Jeroen Doorman
 Crew boat 'flight' model: Rodrigo Moraes

Project Management: Mathijs Kok (Aerosoft)

All the copyrights for the models we purchased to be included in this product remain with their original modelers.

The beta testers of this product deserve special mention. In this development, we experimented extensively with involving them directly in the production; they were enthusiastic and extremely helpful. Many other companies assisted with the development of this product. But <a href="https://example.com/hype-performance-new-performance

We had a fantastic team of advisors, people who work on platforms, ships or who are very much knowledgeable about offshore industry.



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WHAT IS INCLUDED?

Are you ready for this? Basically, we tried to include every man-made object offshore, from the smallest buoy to the largest oil platforms. From a small crew boat to the Pioneering Spirit, the largest construction vessel capable of lifting 48.000.000 kilograms. We even include a small ship that you can use to explore the objects.

We also included 388 heliports, 196 ICAO codes, 78 NDB beacons, 72 substations and 741 ships with helipads (or winch pads). These are all documented in this manual and will be part of NavDataPro and Navigraph. Other tools like Little Navmap, OnAir etc, will also support these new locations.

WHAT AREA IS COVERED?

We cover the North Sea, the English Channel, the Irish Sea and small parts of the Atlantic ocean. We did not attempt to cover ports, but you will find that some ships will be placed in many places, sections of ports that are seriously wide. In narrow sections, we avoided placing ships as that can often go wrong.

The main coverage is, without a doubt, the southern North Sea. Mainly because that is the most densely used area of the covered region. Here, you will find the densest shipping routes, the biggest wind parks, and gas production platforms. The Irish sea has far less marine traffic and few wind parks. The North Sea's northern section is much larger, and the objects' density is lower. You will find mainly oil production platforms there.



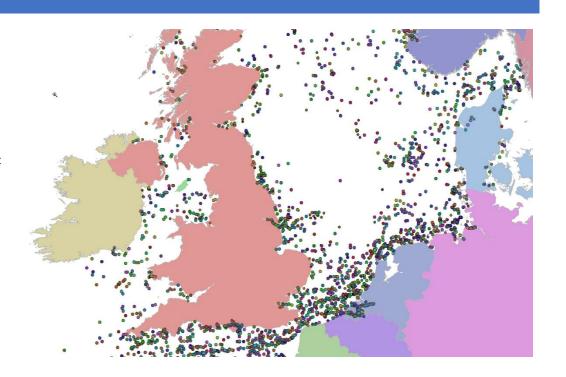


COMPATIBILITY

With any project covering a massive area like this, you will encounter compatibility issues with other DLC. Some of it can be circumvented, and some of it simply not. For starters, we strongly advise you to disable any marine traffic DLC if you fly in this area. The vessels in these products can easily sail into areas they should not be in and often do not follow the shipping lanes very precisely. Secondly, we honestly believe you do not need them. We included every ship in the exact location when we made our snapshot (see the chapter on moving ships). You can't get more realistic than that. The image shows the placement of ships; as you see, there are a lot of them, and again, they are not placed randomly, but that ship was at that location on January 20, 12:00 GMT.

Any other DLC intended to add wind turbines, oil/gas platforms, and the like should be disabled, as we cover that 100%.

Other possible conflicts are with scenery objects like wind turbines that are part of other DLC. If you report those in our support forums, we will do our best to find solutions.





MOVING VERSUS NON-MOVING SHIPS

Very few ships are actually moving. We had long discussions about this but decided to make the ship static made the most sense. See here why.

- Unless you have a static object in view, there is no way to know if a ship (or your aircraft) is moving. Ships sailing upstream can have a wake while not moving at all, and in an aircraft, all movement without a fixed reference point is simply wind. So for all intents and purposes, you rarely notice a ship 'moving' from an aircraft.
- If you look at the section on shipping lanes and traffic patterns, you will see that making correct routing for all ships would be an incredibly demanding task, prone to potential problems. Not only do you have to avoid collisions with other ships or objects, but you also have to ensure every ship you move is in a logical location. A dredger working in 100-meter deep water is nonsense; an unladen supertanker heading north in the English Channel might happen but not very logical.
- At the moment of release, landing on a moving object is impossible, and we wanted all the ships with helipads to be usable. And again, without a fixed reference point, any movement for a helicopter is 100% the same as wind.
- Around 15% of vessels in the covered area are anchored at any time. They are waiting for cargo or new jobs or are working at construction sites. Certainly, on the Dutch coast, these are very visible if you fly between the Netherlands and the UK.
- Unlike other marine traffic DLCs we try to cover all classes of ships. From very small to very large, from sailboats to vessels that can lift up an oil rig. From tugs that tow massive structures at incredibly slow speeds to shrimp fishing boats just a few hundred meters from the coast. It's simply not the same kind of product. We try to include every single floating or standing object.

SO HOW DID YOU PLACE THE SHIPS AND OTHER OBJECTS?

By buying and collecting databases. EVERY object is placed where something was at a given moment. No random placement.

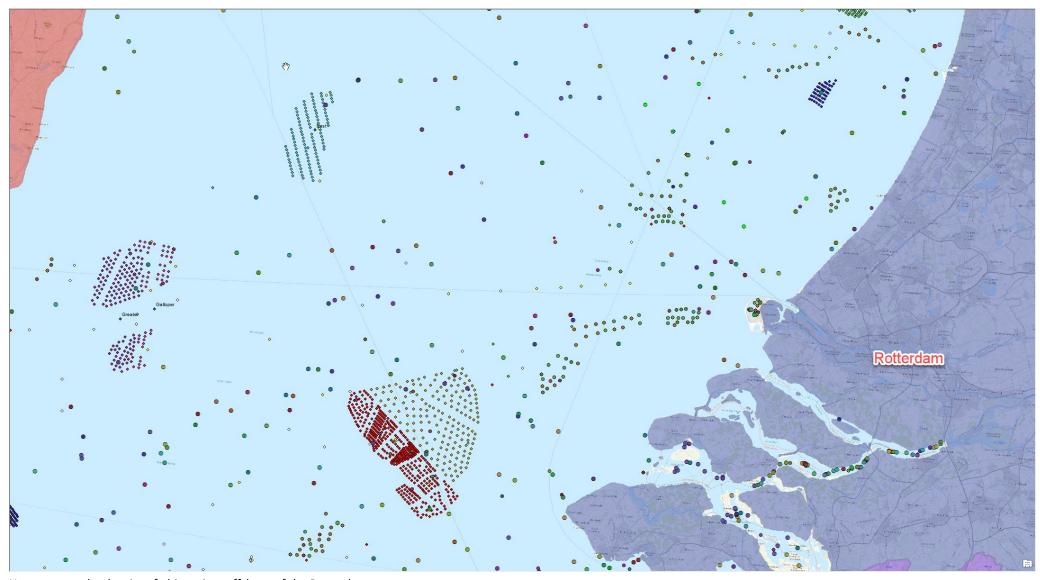
Let's start with the vessels. They are all shown as they were on January 20 2022, at noon (Zulu). So if you see a vessel in the simulator, you know there was a vessel there at that time. There are no randomly placed objects. They are there now, or they were at a given moment. January 20 turned out to be not the best' snapshot' because not many sailboats will be out on that date. Also, many fishing vessels were in port on that date. I am sure somebody can explain that to me. Of course, all vessels have the exact heading they had when we did our snapshot.

The wind parks were a whole different cattle of fish. For some weird reason, it seems the actual location of the turbines is worth a lot of money. You can get databases that have every single one, but you lose an arm and a leg paying for them. So I (we) spend a lot of time collecting data to bundle that into one dataset. Open Street Map had a lot, and I have ensured the data we collected is shared with that fantastic organization. But every turbine producing energy in early summer 2022 is placed exactly where it should be within meters.

Other smaller databases were used to place things like lightships (yes, they are still used!), buoys and objects like that. Will you see a buoy from 41,000 feet? No, but if you fly an unpressurized vessel over the English Channel, you will most definitely see them.

The oil and gas platforms had their own complexity. Getting the location is not hard as that seems to be data hard to commercialize, unlike wind parks. But they have navigation aids for helicopters (NDBs), names, and ICAO codes. We also had to make sure you could use them as starting or destination locations in the simulator.





Here you see the density of objects just offshore of the Rotterdam port.

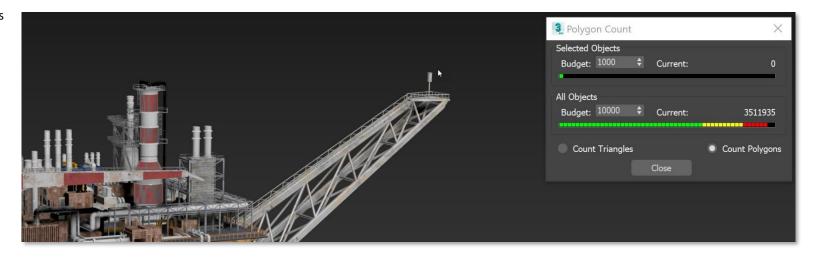


WHAT DID YOU ACTUALLY PLACE? DID YOU MODEL EVERYTHING?

The databases we bought or collected all had information on the kind of object. So, we know if it is a tanker, an FPSO (we'll explain that later), a tug, a drilling gas rig or a fishing vessel. With that information, we started to look for models. From the start, we decided not to model all objects but to buy them whenever possible. This is how most modern games are made. You shop for the objects you need. You could make your own detailed VW Golf and have a modeler work on that for two weeks, or spend 100 dollars and buy one.

You can find anything you need for ships and offshore industry stuff. If an oil rig costs 700 million to build in steel, the company that has that done will not howl when they ask an artist to do a virtual model for a few tens of thousands. Often these artists keep the rights and can sell the 3d models. So that is why we could buy incredibly detailed models for a modest sum. Now, this does not work out perfectly. There are no two ships that are the same. So while there might be 50 different kinds of ferries on the North Sea, we only have three models. This is even more obvious for the oil and gas platforms. They are almost always built for the task and can vary from four legs and a platform to an actual island. There is no way we could cover that variety. So we pick the best possible object for the location. I would love to say we used AI to work on this, but it was all manual labor. If we know a fishing vessel was at a certain location, we look at the location and then decide if it would be a very small shrimp boat or an ocean-going factory ship. For every platform, we looked at how it looked in reality and then decided which of our models fit best.

This method of getting the objects means the level of detail differs between objects. Some are rather modest, but others are extravagant in detail. There are objects included we thought would never work. When we compiled the first million polygon ship, we were sure it would crash the simulator. It did not. Neither did a 3 million polygon ship. Neither did a 5 million polygon ship. This blew us away; the graphics engine of Microsoft Flight Simulator is incredible. For reference, that is a great detail large airport (think our Brussels) worth of



polygons in one single object. That is why you have objects in this product that are absolutely unique. No other project contains this amount of detail.

All models have been carefully converted and optimized for MSFS. We added LODs, lights, and animations. While some objects will undoubtedly be hard on your framerate, they are remarkably well-optimized.



THE CREW BOAT

We included a small vessel that you can control. This crew vessel is used to transport crews and small cargo during construction and maintenance work. It has a catamaran hull to make it more stable, but even so many crews call it the Vomit Express.

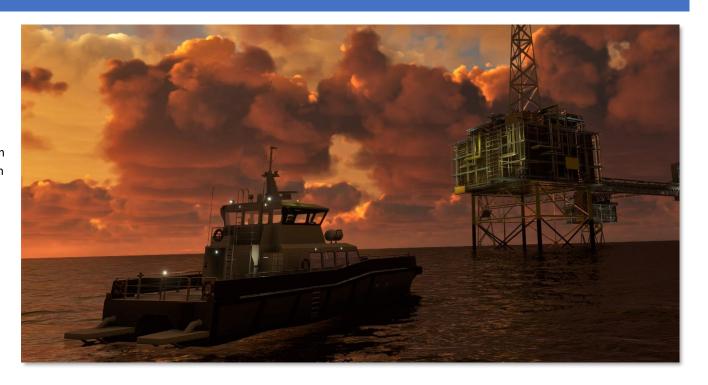
The ship is selected via the aircraft menu like any other aircraft. From the world map, click the left mouse button on any position on the water and select this point as departure. After clicking on Takeoff, the ship starts on the water. Do note it is a flight simulator, and correct behavior is unlikely to be ever achieved. Certainly, in bigger waves and higher winds things get a bit weird.

We did not include a full Virtual Cockpit. Using the ship in external view is just a lot more fun (and a lot easier).

The ship has the following control options:

CTRL + E Start Engines
 Rudder Left/Right
 Throttle Accelerate
 L Nav Lights
 CTRL + 0-7 Cockpit Views

• G Horn



ANCHORAGE AREAS

Anchorage Areas are predefined areas (and even specific anchor locations) where ships can wait. This can be because their berth in the port is not yet free or because they are awaiting a new cargo. You will find them close to ports. If you see a lot of ships very close together at anchor, that is probably an anchorage. In this project, we covered the anchorages of Antwerp, Rotterdam, Scheveningen, Amsterdam, Bremerhaven and Hamburg. In our project, all the vessels at anchor are shown as they were on May 10, 2022



WIND PARKS

The relatively shallow depth and the strong prevailing wind make the North Sea an ideal place to generate wind energy. 8 % of the North Sea is now a wind park, which will grow rapidly to 15%. The costs are astronomical; now, around 26 billion Euros a year is invested. But as these turbines will provide clean and cheap electricity for the UK, Ireland, the Netherlands, Belgium, Germany and Denmark, it is an investment with a very low risk. Currently, there is about 25GW of offshore wind capacity (the red areas). This will grow to 300 GW (the green areas) in 2050. This will provide up to 75% of the energy need of the surrounding countries.

The wind parks are very visible in this product. At night, even more than in the daytime, because of the red hazard lighting. The horizon can be filled with these blinking red lights. You will notice that all shipping lanes avoid them, but you will find smaller vessels servicing the turbines in many locations.

Highlights of this product are the construction sites. There you will see massive ships placing the foundations and adding the pylons and nacelles. Other ships are laying cables and building the substations (these connect to all the turbines and then feed the electricity to the mainland). Almost always, the substations have helidecks and some accommodation for work crews. Sailing into these work areas is not recommended (you might find a guard vessel intercepting you), but they are sure an impressive sight to be seen from a helicopter.



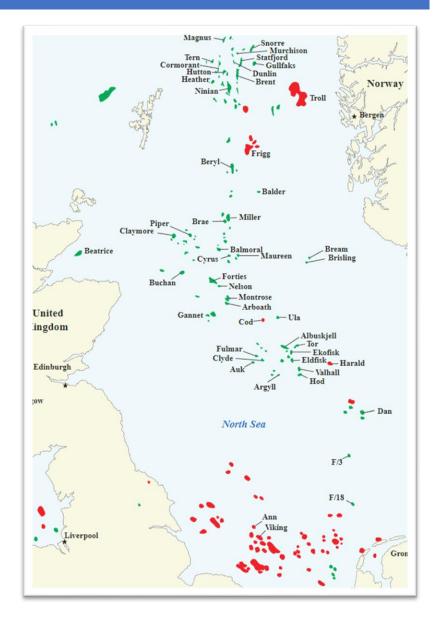


OIL AND GAS PLATFORMS

Whereas the wind parks are mainly located in the shallower areas (deep sea floating wind turbines are rapidly becoming more feasible), the oil and gas rigs must be where the oil and gas are found. You see their location on the chart (courtesy of Wikipedia). Red is natural gas or condensate gas, and green is oil. While the investments in wind energy are astonishing, the cost of the oil and gas industry in the North Sea supersedes that easily. A single oil rig can cost up to 1 billion euros to build and install. And that is to own one; running them can cost up to a million euros daily. That is why the companies that operate them have no problems using expensive helicopters to transport spare parts. They have to produce around the clock, no matter the weather.

The exploration of an oil or gas field is complex. First, the surveyors come with special ships to determine the best places to drill. After that, a drilling rig is brought on site, these are how many people imagine what an oil rig looks like. With a high tower, many cranes etc. When the holes (often many for one platform) are drilled, the production rigs are placed. These connect to the connectors on the sea bed and pump up the oil or gas. These big rigs often have separate interconnected platforms for production, storage/refinery and crew quarters.

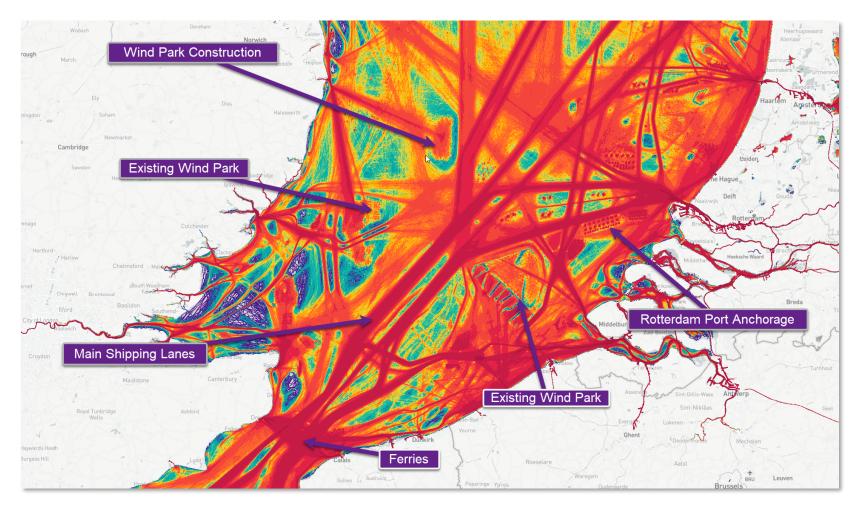
During construction, dozens of ships and hundreds of people can work. So there are special ships where the crews can rest in safety. Needless to say, these are called floatels. Smaller ships ferry crews around (though floatels often can dock with a work site). Massive ships bring construction parts; even large cranes lift these bits into place. Even ships can lift an entire oil platform and place it on its foundations. Other ships are designed for special tasks like diving operations or dredging the sea floor. Pipelaying vessels construct massive pipelines to the mainland. If that is too far, the oil or gas is stored in huge underwater tanks or in FPSOs. These Floating Production Storage and Offloading look like oil tankers but are moored. The tankers link to these ships to pump the oil into their holds. Surrounding all of that, you find fast emergency rescue vessels, guard vessels, and often, the coast guard keeps an eye on things.





SHIPPING LANES AND TRAFFIC PATTERNS

In an area as densely used as the Channel and the North Sea, it is unavoidable to have regulated shipping lanes that avoid wind parks and other obstacles.



If you look at a density map (showing all the traffic in 2021), you see these shipping lanes very clearly. But if you look more closely, you will see many more patterns. You see the wind parks with the traffic to and from them, construction sites that are more 'fuzzy', the port entrances, and the anchorages where ships wait before entering a port. In other areas, you see how fishing vessels go back and forth.



VESSELS

We loved the variety of vessels we could include in this project. As you might not be familiar with some of these, we will tell you a bit about them.

Safety Standby Vessels: These vessels are always at hand when drilling occurs. They are fast and equipped to evacuate personnel. They can also fight fires and assist with other emergencies. In our project, all the Safety Standby Vessels are shown at the position they were on May 11, 2022





Tankers: Tankers come in many different sizes, from the smaller tankers used to bring chemicals to the platforms to the absolutely massive supertankers. While not official classes, they are often divided into Handysize (up to 50.000 tons), Panamax (designed to be able to traverse the Panama Canal, up to 100.000 tons), Aframax (up to 120.000 tons), Suezmax (designed to traverse the Suez Canal, up to 160.000 tons, Very Large Crude Carrier (up to 320.000 tons) and Ultra Large Crude Carrier (up to 550.000 tons). The bigger tankers have helipads, and the smaller ones often have a winch pad.





Fishing vessels: We include three kinds of fishing vessels. The smaller ones stay close to shore, the larger ones go offshore fishing grounds, and the massive ones sail the oceans. You will find different models, trawlers, seiners and line vessels within these three classes. You will often find the smaller ones close together or enroute to and from their ports. If you are surprised that some fishing vessels are higher than they are long, so are we!





Freighters: Freighters (or cargo) ships come in many different versions. The smaller feeder ships that can come into smaller ports, general cargo ships (these are mostly mid-sized and can carry any non-standard cargo, dry bulk carriers that transport grain, coal, ore etc., reefer ships that can refrigerate cargo like fruit or meat, RORO ships that transport wheeled cargo like cars. Containerships come in many sizes, from smaller ones that handle 500 containers to the ULCV class that can transport up to 24.000 containers. The newest class of ULCV are changing the shipping industry again, just like the first container ships did.





Offshore Industry vessels: an important class of vessels in this product. They contain all the ships involved with the construction and maintenance of offshore sites. Shown here is a 'floatel'. A large vessel where the crew can rest between shifts. The crane-like structures on deck are gangways connecting the ship to the structure, making it easy and safe to go from the ship to the worksite.





Other vessels: You will find many other vessels, such as dredgers that clean sites for wind parks, cable laying vessels etc.





FLYING AND NAVIGATION

Finding your way offshore is not as easy as it is over land. Not only is there not a lot to orient yourself by, but there are not many navigation beacons. Many bigger platforms have NDB beacons (see Appendix A) you can use to find as you get closer. But most navigation is done via GPS these days. Picking a location to start from is easier; use the simulator's options. If you use a platform, make sure you are in a helicopter!



We are gathering more information about routes and navigation in our support forums. Please add any information you can find! https://forum.aerosoft.com/index.php?/forum/1166-navigation-and-databases/



FAQ

There is an updated FAQ in our forum.

1. Why are the heliports not visible on the MSFS VFR Map Panel?

At this moment, only locations with the 'airport' tag are visible on that map. Unfortunately, helipads do not yet show. We have requested this to be changed.

BUGS AND WISHES

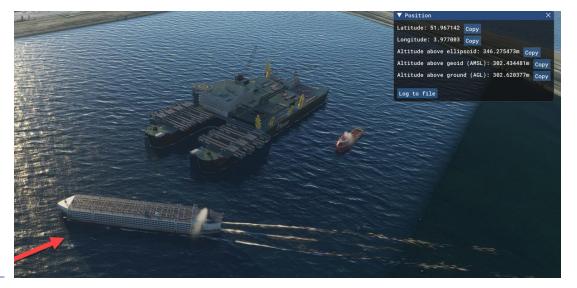
Aerosoft prides itself in tweaking products after release to suit the customer's wishes. We update. But to streamline the process, we ask you to follow some guidelines.

OBVIOUS BUGS

If you place thousands of objects automagically, you will run into issues. Some will be database issues, some will be how we interpret data, and some will probably never be explained. The good thing is that these issues are easy to solve. If you send us an image via the <u>forum</u> that shows the issue AND the location, we promise to fix it. But to do so, you need to include the correct information. The only thing we need is one single image like the one shown with the lat/lon information copied in the text of the forum post

This shows the issue and the location, making it a doddle to fix. We'll name the bug after you! Showing the location is not too complex, but it needs the <u>developer mode</u> to be activated. Then select Options | Display Position to show the Position dialogue.

Please do not forget to copy and paste the coordinates from the position dialog into the bug report.



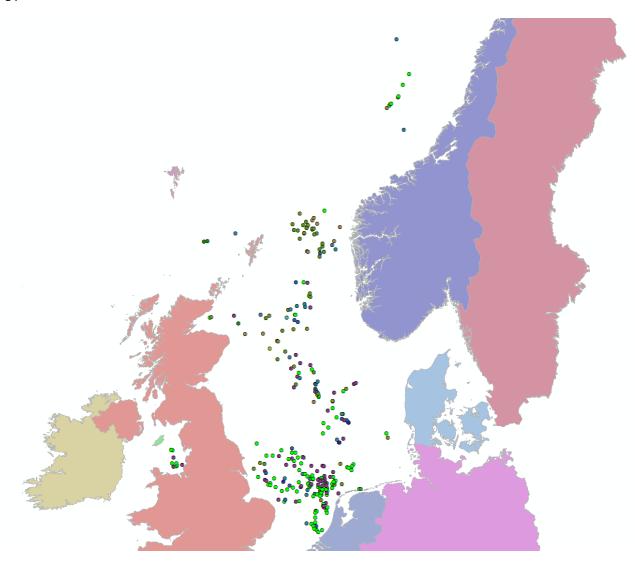
WISHES

If you feel we should add an object, make a similar image and tell us what you feel is missing. If you think we selected the wrong model, also tell us but keep in mind that we have a limited number of objects we can choose from. Yes, we know your favorite oil rig looks different and will be glad to change it for another, but we can't model every oil rig or ship individually. That would explode the project.



APPENDIX A: OIL AND GAS PLATFORMS

These platforms all have a helicopter landing pad or a winch location.





Name	ICAO	Lat	Lon	NDB freq	ID
A12-CPP	EHAK	55.3991666667	3.81027777778		
A18-A	EHAX	55.105	3.83166666667		
A6-A	EKAF	55.7904333	3.9927222		
Aasgard A	ENUA	65.0641435	6.7256888	402.00	LF71
Aasgard B	ENUB	65.1101017	6.78943		
Aasgard C	ENUC	65.1311006	6.8640315		
Aasta Hansteen	ENUN	67.0688889	7.0972222	401.00	AAH
Alba North		58.06	1.07930555556	340.00	ARN
Alvheim	ENWA	59.5666667	1.9916667		
AME-2	EHMD	53.4833333333	5.8669444444		
Amethyst A1D		53.6115	0.724	366.50	AM
Anglia A		53.3683333333	1.65316666667		
Auk A		56.4006666667	2.06333333333		
AWG-1	EHMA	53.491944444	5.94027777778		
B13-A	EHBL	55.2847222222	4.09666666667		
Balder A	ENBE	59.1902167	2.3875		
Barque PB		53.6131666667	1.52666666667	374.00	BRQ
Beatrice AD		58.1152777778	-3.08597222222	323.00	BEA
Beatrice B		58.1480555556	-3.02		
Beryl A		59.5457222222	1.53783333333	388.00	KY
Boulton		54.2436666667	2.15416666667		
Brae A		58.6916666667	1.28		
Brage A	ENQD	60.5419444	3.0458333		
Breagh A		54.596	0.428		
Brent A		61.0348333333	1.7055		
Brent B		61.0573611111	1.71061111111		
Buchan A		57.9018333333	0.025		
Buzzard UP		57.8127777778	-0.97777777778	359.00	BUZ
Caister A CM		54.2038333333	2.45133333333		
Calder		53.8041666667	-3.65833333333		
Camelot CA		52.947	2.1545		
Captain BLPA		58.306	-1.771	330.00	CWP
Caravel QR		53.43	2.897		
Carrack QA		53.5800027778	2.794	416.00	CRC
Cavendish RM		54.478	1.738		



Cecilie	EKCE	56.4021139	4.7596222		
Chiswick NUI		53.939	2.746		
Clair		60.7358333333	-2.4875		
Claymore A PA		58.4496666667	-0.256166666667		
Cleeton		54.034	0.73	394.00	CLT
Conwy NPAI		53.627	-3.672		
Cormorant A		61.1025	1.07284722222	430.00	CD
CPF		57.2916666667	1.66083333333		
Cygnus A		54.569	2.29	345.00	CGA
D12-A	EHDT	54.342222222	2.8644444444		
D15-FA-1	EHDV	54.3247222222	2.93416666667	358.00	DIV
D18-A	EHDY	54.1491666667	2.8219444444		
Dan B	EKDB	55.4690389	5.1330639	355.00	DON
Davy A		53.0051666667	2.89616666667		
Douglas		53.538	-3.5785		
Draugen	ENDR	64.3527778	7.7808333		
Draupner	ENDP	58.1881593	2.4711188		
Dunlin A		61.2748333333	1.59766666667		
E17A-A	EHER	54.0980555556	3.36027777778		
E18-A	EHET	54.1202777778	3.92888888889		
Edvard Grieg	ENWE	58.8425	2.2472222	437.00	EDV
Ekofisk K	ENXK	56.5652778	3.2047222		
Ekofisk L	ENLE	56.5441667	3.2252778		
Eldfisk A	ENXL	56.3761111	3.2644444	544.00	FSM
Eldfisk B	ENXB	56.4186111	3.2169444		
Eldfisk S	ENWS	56.3736111	3.2627778		
Embla	ENXM	56.3325	3.2469444		
Excalibur EA		53.4641666667	1.34638888889		
F15-A	EHFO	54.2158333333	4.8272222222		
F16-A	EHFZ	54.1158333333	4.01083333333		
F2-A	EHFB	54.944444444	4.5725		
F3-FA	EHFE	54.9852777778	4.9		
F3-FB-1A	EHFD	54.8531638889	4.69483611111	402.00	NO
F3-OLT	EHFC	54.8530555556	4.72611111111		
Fife		56.0166666667	3.20833333333		
Fino 3	EKFI	55.195	7.1583333		



Forties C		57.7268055556	0.84680555556		
Forties D		57.7196666667	0.900833333333		
Fulmar A		56.4936666667	2.15466666667	386.00	FM
G14-A	EHGN	54.2238888889	5.49861111111		
G14-B	EHGO	54.169444444	5.43472222222		
G16A-A	EHGP	54.1252777778	5.2022222222		
G16A-B	EHGS	54.1191666667	5.2630555556		
G17D-A	EHGQ	54.0491666667	5.4319444444	384.00	GDF
Gannet A		57.1841666667	0.998611111111	337.50	GNT
Ganymede ZD		53.3248333333	2.238		
Garrow NUI		54.272	0.995		
Gina Krog	ENWK	58.5713889	1.6952778	317.00	RAN
Gjoa	ENQJ	61.3316667	3.895		
Gorm C	EKGC	55.57985	4.7589139	615.00	OM
Grane	ENXW	59.165	2.4866667		
Gudrun	ENWG	58.845	1.7433333		
Guinevere GA		53.4138888889	1.2722222222		
Gullfaks A	ENGA	61.1755556	2.1875	414.00	GFA
Gullfaks B	ENQG	61.2025	2.1994444		
Gullfaks C	ENGC	61.2144444	2.2722222	333.00	GFC
Gyda	ENXG	56.9042711	3.0837272		
Halfdan A	EKHA	55.5308583	5.004175		
Halfdan B	EKHB	55.5386139	5.0333333	427.00	HDY
Hamilton		53.5668333333	-3.453		
Hamilton East		53.5999972222	-3.42		
Hamilton North		53.6471666667	-3.4765		
Harald	EKHD	56.3441194	4.2719222	336.00	HWB
Heidrun A	ENHE	65.3255556	7.3158333	340.00	HEI
Heidrun B	ENUR	65.3434633	7.3671733		
Heimdal	ENHM	59.57359	2.227174	358.00	F4H
Hewett A		52.9996666667	1.84716666667		
Hod	ENXH	56.1758333	3.4586111		
Hyde		53.8073333333	1.02866666667		
Indefatigable BD		53.3921666667	2.5245		
Ivar Aasen	ENWI	58.9222222	2.1977778		
J6-A	EHJA	53.8233333333	2.94388888889	424.00	UZ



Jade		56.849	2.254	347.00	JAD
Jasmine		56.7241666667	2.20611111111	367.00	JME
Johan Sverdrup	ENJS	58.8352778	2.5455556	382.00	JSV
Judy		56.6968055556	2.337	331.00	JDY
K10-B		53.3625	3.2544444444		
K11-FA-1		53.449444444	3.3419444444		
K12-A	EHKM	53.4758333333	3.7872222222		
K12-B	EHKP	53.3408333333	3.89361111111	402.00	KB
K12-C	EHKN	53.4583333333	3.9044444444		
K12-D	EHKO	53.4216666667	3.885		
K12-G	EHKQ	53.3552777778	3.9822222222		
K12-K	EHKX	53.4227777778	3.96027777778		
K13-A	EHJR	53.2172222222	3.21888888889	385.00	PK
K14-FA-1A	EHKW	53.2686111111	3.62638888889	402.00	AA
K14-FA-1C	EHKV	53.2686138889	3.62639166667		
K14-FB-1	EHKZ	53.1905555556	3.57833333333		
K15-FA-1	EHKT	53.2472222222	3.98611111111		
K15-FB-1	EHKS	53.275555556	3.87166666667		
K15-FC-1	EHKY	53.2519444444	3.7625		
K15-FG-1	EHKR	53.3052777778	3.94666666667		
K15-FK-1	EHKU	53.2166666667	3.91916666667		
K18	EHQA	53.0813888889	3.96416666667		
K1-A	EHJB	53.8430555556	3.0780555556	393.00	EKA
K2B-A	EHJC	53.9486111111	3.6622222222		
K4-A	EHJE	53.7502777778	3.3094444444		
K4-BE	EHJD	53.765	3.19527777778		
K5-ACP	EHJF	53.695555556	3.33888888889		
K5-B	EHJG	53.7138888889	3.4272222222		
K5-CU	EHJJ	53.815	3.4494444444		
K5-D	EHJI	53.6908333333	3.4872222222		
K5-EN/C	EHJH	53.7105555556	3.51111111111		
K6-D	EHKG	53.675	3.82833333333	323.00	KZ
K6-DN	EHKC	53.725555556	3.8044444444		
K6-GT	EHKB	53.7525	3.91472222222		
K6-PC	EHKE	53.6983333333	3.86888888889		
K6-PN	EHKF	53.6986111111	3.7477777778		



K7-FA-1	EHJK	53.5719444444	3.30472222222		
K7-FD-1	EHJL	53.5491666667	3.26583333333		
K8-FA-1	EHJM	53.499444444	3.36888888889	371.00	AO
K8-FA-2	EHJO	53.514444444	3.4175		
K8-FA-3	EHJN	53.5413888889	3.4222222222		
K9-AB-A	EHKL	53.52	3.9925		
K9-AB-B	EHKK	53.5508333333	3.7794444444		
K9C-A	EHKH	53.6525	3.8727777778		
Ketch NUI		54.049	2.488		
Kilmar NUI		54.2890027778	1.335		
Kittiwake		57.4713888889	0.51194444444	346.00	KTW
Kristin	ENUK	64.9940703	6.5505224	402.00	AML
Kvitebjorn	ENQK	61.0833333	2.5		
L10-A	EHLL	53.4033305556	4.20055555556	323.00	PO
L10-B	EHLH	53.4566638889	4.23166666667		
L10-C	EHLN	53.3930555556	4.20083333333		
L10-D	EHLK	53.4088888889	4.21361111111		
L10-E	EHLI	53.4316666667	4.2355555556		
L10-F	EHLO	53.3863916667	4.2594444444		
L10-G	EHLG	53.490275	4.19527777778		
L10-L	EHLJ	53.4183361111	4.18361111111		
L10-M	EHLM	53.4052777778	4.0225		
L11-B	EHLX	53.472222222	4.4894444444	323.00	HX
L13-FD-1	EHLR	53.2619444444	4.24638888889		
L13-FE-1	EHLP	53.3130583333	4.24666666667		
L15-FA-1	EHMR	53.329444444	4.83083333333	402.00	NAM
L16	EHQC	53.0141666667	4.21611111111	358.00	CF
L2-FA-1	EHFQ	53.960555556	4.49611111111		
L4-A	EHKJ	53.724444444	4.0975		
L4-B	EHKI	53.6761083333	4.00111111111	323.00	EC
L4-PN	EHKA	53.8233333333	4.04972222222		
L5-B	EHLS	53.7041666667	4.6022222222		
L5-C	EHMF	53.6958361111	4.64527777778		
L5-D	EHFT	53.8180555556	4.51277777778		
L5-FA-1	EHFR	53.8108333333	4.35111111111	323.00	TJ
L6-B					



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L7-A	EHLA	53.599444444	4.0822222222	323.00	EK
L7-B	EHLC	53.6083333333	4.20527777778		
L7-H	EHLB	53.6244416667	4.14361111111		
L7-N	EHLD	53.5719444444	4.17527777778		
L7-PQC	EHLF	53.537225	4.2022222222		
L8-A	EHLV	53.5836111111	4.47083333333		
L8-G	EHLY	53.5811111111	4.60277777778	323.00	LB
L8-P	EHLU	53.64	4.5625		
L8-P4	EHLT	53.6605555556	4.5394444444		
L9-FF-1	EHMG	53.614444444	4.96027777778	422.00	NAL
Lancelot LA		53.4101666667	1.37533333333		
Leman D		53.0095	2.18566666667	317.00	LEA
Lennox		53.6321666667	-3.175		
Magnus		61.6201666667	1.30716666667		
Martin Linge A	ENQM	60.5075	2.0147222	434.00	MLI
Martin Linge B	ENQL	60.4983333	2.0733333		
Maureen A		58.131	1.70066666667		
Miller		58.7217333333	1.40008333333		
Millom East		54.0099972222	-3.772		
Millom West		54.027	-3.86016666667		
Montrose A		57.4506666667	1.38783333333	393.00	AZ
Mungo		57.3747222222	1.99666666667	363.50	MGO
Munro MH		54.4338194444	2.29847222222		
Murchison		61.3950694444	1.73826388889		
Murdoch A-M		54.2686666667	2.32366666667		
Nini	EKNI	56.6408056	5.3211222		
Nini East	EKNE	56.6748306	5.4126778		
Ninian Central		60.8568333333	1.46916666667		
Norne A	ENNE	66.0270741	8.0865941		
NW Hutton		61.1061111111	1.30388888889		
Oseberg A	ENOA	60.4913889	2.8255556	353.00	OBA
Oseberg C	ENOC	60.6077778	2.7744444		
Oseberg East	ENQE	60.7	2.9336111		
Oseberg South	ENQO	60.39243	2.7954607		
P11-B	EHPG	52.36	3.3419444444		
P11-E	EHPE	52.3561083333	3.58916666667		
· · · · -		02.000.00000	2.0001000001		



P12-SW	EHPH	52.4058333333	3.75861111111	358.00	MD
P15-ACD	EHPK	52.2902805556	3.81611111111		
P15-E	EHPM	52.1716638889	3.86777777778		
P15-F	EHPJ	52.3058305556	3.685		
P15-G	EHPL	52.2225	3.7394444444		
P18-A	EHPN	52.1269444444	3.9377777778		
P6-A	EHPB	52.755	3.75611111111	358.00	MB
P6-B	EHPD	52.7372194444	3.80361111111		
P6-D	EHPC	52.7002805556	3.7255555556		
P9-A	EHPF	52.5525027778	3.74083333333	358.00	PHC
Petrojarl Knarr	ENQP	61.7819444	2.8319444	399.00	PJK
Pickerill A		53.55	1.07716666667		
Pickerill B		53.525	1.16027777778		
Pierce B2		57.1426388889	2.28319444444		
Piper B		58.4613333333	0.251		
Q13-A	EHQT	52.1911138889	4.13638888889		
Q1-D	EHQM	52.872222222	4.17138888889		
Q1-Halfweg	EHQG	52.8826666667	4.32033333333		
Q1-Haven A	EHQB	52.972222222	4.10611111111	289.00	HAVE
Q1-Helder A	EHQD	52.9215	4.09833333333		
Q1-Helm A	EHQF	52.8725	4.14216666667		
Q1-Hoorn A	EHQE	52.9256666667	4.1505	358.00	НО
Q4-A	EHQI	52.7786111111	4.26666666667		
Q4-B	EHQJ	52.7163888889	4.2997222222		
Randgrid	ENWR	58.5833333	1.7327778	407.00	RAN
Ravenspurn South A		54.0241666667	0.959166666667	359.50	RVN
Ravn Wintershall	EKRV	55.8818333	4.2347444		
Ringhorne	ENXO	59.2666667	2.45		
Rolf	EKRF	55.6061556	4.4913389		
Rough B-BD		53.8338333333	0.442		
Schooner NUI		54.0598333333	2.07783333333		
Shamrock QS		53.47	2.922		
Shearwater C		57.03	1.95333333333		
Siri	EKSI	56.4827139	4.9111278	391.00	SIR
Skarv	ENUS	65.6997222	7.6508333		
Skjold	EKSC	55.5315944	4.9066889	434.00	JL

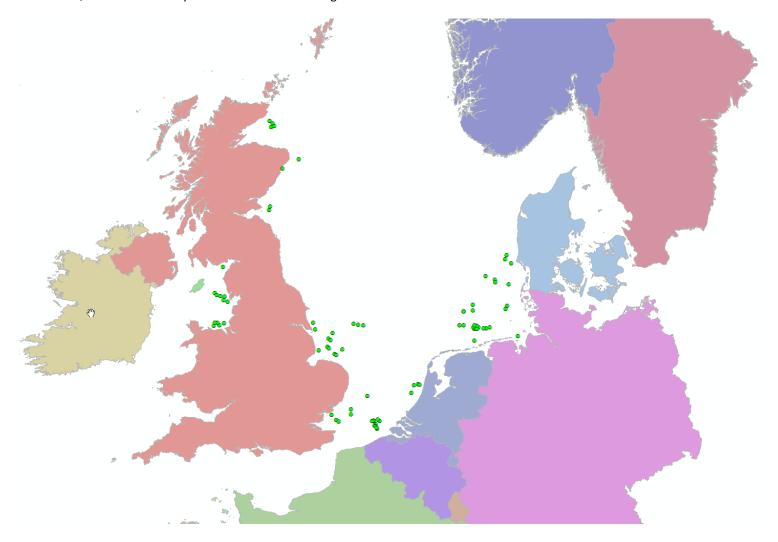


Sleipner A	ENSL	58.3666667	1.9069444	349.00	SPA
Sleipner B	ENXZ	58.4166667	1.7166667		
Snorre A	ENSE	61.4488889	2.1425	375.00	SNR
Snorre B	ENQR	61.525	2.2097222		
Statfjord A	ENSF	61.2552778	1.8522222	414.00	STA
Statfjord B	ENFB	61.2063889	1.8288889		
Statfjord C	ENQS	61.2961111	1.9008333		
Syd Arne	EKAR	56.0802806	4.2304		
Syd Arne Nord	EKAN	56.0958333	4.2191667		
Sylwind Alpha	EKSW	55.0623306	7.2414556		
Tambar	ENXR	56.9833333	2.9583333		
Tartan A		58.3698333333	0.0736666666667	402.00	TAA
Tern A		61.276	0.9195	372.00	WES
Tethys		53.6501666667	2.05611111111		
Tor	ENXT	56.6413889	3.3255556	544.00	TRL
Trent		54.2995	1.6596666667		
Troll A	ENQA	60.645	3.7247222	310.00	TRL
Troll B	ENQB	60.7738889	3.5013889		
Troll C	ENQC	60.8858232	3.6097611		
Tyne		54.449	2.48		
Tyra A	EKTE	55.7215222	4.8020778	326.00	RA
Tyra W	EKTW	55.7165278	4.750325		
Ula	ENLA	57.1104611	2.8446256	380.00	ULA
Valemon	ENQW	61.04	2.3366667	395.00	VNM
Valhall Flank North	ENXI	56.3238889	3.3511111		
Valhall Flank South	ENXJ	56.2269444	3.4358333		
Valhall Flank Vest	ENWF	56.2515056	3.3487278		
Valhall PH	ENWV	56.2747222	3.3933333		
Veslefrikk A	ENQF	60.7821923	2.8961658		
Viking BA		53.4491666667	2.331		
Visund A	ENQV	61.3697222	2.4572222		
Vulcan PUR		53.258	1.97166666667		
Welland A		52.9851666667	2.7365		
West Franklin		56.957777778	1.80361111111	340.00	WFA
West Sole C		53.753	1.0805		
Wingate		54.317	2.621		



APPENDIX B: SUBSTATIONS

Substations are the smallish platforms in wind farms where the electricity of all turbines is combined and sent to the shore. They always have a helipad. If you bring maintenance crews to the turbines, this is also where you can land to avoid having to hover for hours.





Name	lat	lon
Alpha Ventus	54	6.6233333
Amrumbank West	54.5199075	7.734646
Beatrice Offshore Wind Farm	58.2576842	-2.8893943
Belwind	51.6900672	2.8257224
Belwind	51.694722	2.817222
Borkum Riffgrund I	53.9639128	6.5656185
Borssele Alpha	51.7	3.056667
Borssele Beta	51.726224	2.9655
DanTysk	55.1224238	7.2350084
DolWin Alpha (Converter)	53.996819	6.4205971
DolWin Beta (Converter)	53.9785	6.9231667
DolWin Kappa	54.0042379	7.0789717
Dudgeon Offshore Wind Farm	53.26476	1.37868
East Anglia ONE	52.2485313	2.5068528
Global Tech I	54.5132509	6.3686292
Greater Gabbard Wind Farm	51.9132504	1.945019
Greater Gabbard Wind Farm	51.7863864	1.9584549
Gunfleet Sands Wind Farm	51.7297612	1.2377561
Horns Rev 1	55.5089493	7.874917
Horns Rev 2	55.5994026	7.6225615
Hornsea 1 Substation 1	53.8908275	1.7144031
Hornsea 1 Substation 2	53.8778361	1.8952606
Hornsea 1 Substation 3	53.87746	2.1027242
Humber Gateway Wind Farm	53.6584749	0.2538871
Lincs Wind Farm	53.188448	0.4906076
London Array Wind Farm Substation 1	51.6300106	1.437346
London Array Wind Farm Substation 2	51.6025674	1.5354227
Luchterduinen Q10	52.4038333	4.1738333
Merkur-Offshore	54.0372283	6.5605545
Moray East Wind Farm	58.1257701	-2.76392
Moray East Wind Farm	58.216573	-2.7373125
Moray East Wind Farm	58.1650892	-2.6586917
Nordsee One	53.98237	6.83651
Nordsee Ost	54.4416008	7.6788778
Norther	51.5135	2.9915

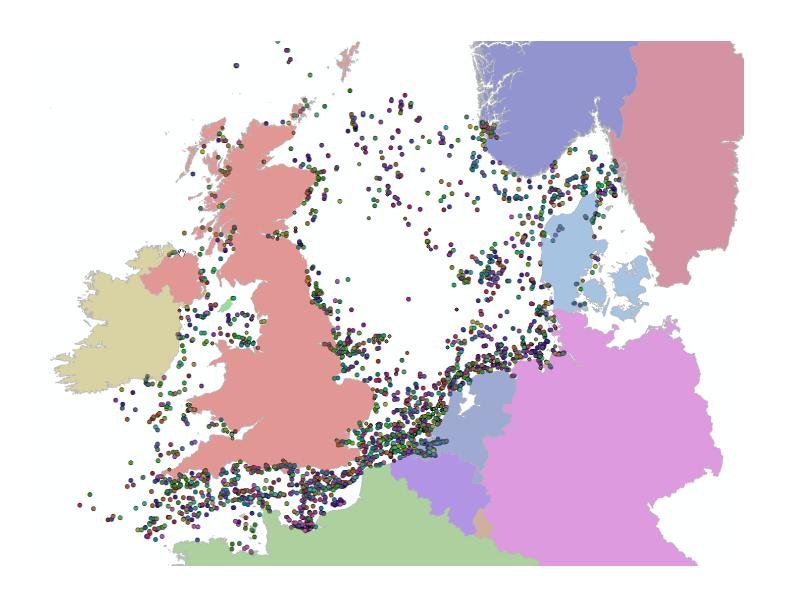


Northwester 2	51.6881675	2.7593346
Northwind	51.6196069	2.9183057
OSY-OS1st	51.582367	2.868583
Prinses Amaliawindpark	52.5855137	4.2353666
Race Bank Wind Farm	53.29571	0.80812
Race Bank Wind Farm	53.25607	0.86509
Rentel Wind Farm	51.5756667	2.9188333
Riffgat	53.6909435	6.4846323
Sheringham Shoal Offshore Wind Farm	53.144141	1.120607
Sheringham Shoal Offshore Wind Farm	53.126704	1.175819
SylWin Alpha (Converter)	55.0627	7.24095
Thorntonbank Wind Farm	51.5328333	2.955
Trianel Windpark Borkum	54.0465	6.4669
Triton Knoll Wind Farm	53.4853389	0.7985686
Triton Knoll Wind Farm	53.4504937	0.8904075
Westermost Rough Wind Farm	53.8046046	0.1337241
Windpark Butendiek	55.01961	7.7997687
Walney Extension Wind Farm	54.13373511	-3.842810163
Walney Extension (WOW03) Wind Farm	54.0900566	-3.743702973
Walney 2 Wind Farm	54.09211815	-3.610598264
West of Duddon Sands Wind Farm	54.00388756	-3.464063135
Ormonde Wind Farm	54.08906445	-3.438064961
Barrow Wind Farm	53.99202445	-3.29680552
Robin Rigg East	54.75715156	-3.70605747
Rhyl Flats Wind Farm	53.38365291	-3.644066178
North Hoyle Wind Farm	53.41787071	-3.443374468
Gwynt y Mor Wind Farm	53.4663023	-3.536766601
Gwynt y Mor Wind Farm	53.46005567	-3.642079307
Burbo Bank Extension Wind Farm	53.48454664	-3.286744112
Aberdeen Bay Demo	57.22668886	-1.995205017
Hywind Scotland Pilot Park	57.49159185	-1.365583021
Neart na Gaoithe Wind Farm	56.23489358	-2.260509513
Neart na Gaoithe Wind Farm	56.3190706	-2.243784245
Egmond aan Zee Wind Farm	52.61548943	4.393859055
Egmond aan Zee Wind Farm	52.60139596	4.450585007
Sandbank	55.1989603	6.8547689



APPENDIX C: VESSELS WITH HELIDECK OR WINCH PAD

Here you see all ships that are placed.





These vessels have either a helideck or are equipped to handle winch operations.

NAME	LATITUDE	LONGITUDE	CALLSIGN	TYPE
A2B AMBITION	52.03884	3.79514	PDKX	Cargo, Hazardous category A
A2B COMFORT	53.25715	0.71219	PCRK	Cargo, Hazardous category D
A2B INDEPENDENT	53.83683	0.5405	PCQL	Cargo, No additional information
AASNES	57.0564	-7.01016	ZDQH9	Cargo, No additional information
AASTIND	57.14285	3.89768	ZDRJ9	Cargo, all ships of this type
AASTUN	51.31776	1.59926	CQLE	Cargo, No additional information
AASVIK	51.50859	0.98039	CQLB	Cargo, all ships of this type
ACADIA DESGAGNES	49.55493	-4.02697	8PAO4	Cargo, No additional information
ADAMAS	52.47355	2.18575	PBXW	Cargo, all ships of this type
ADRIATA	55.08022	5.98421	CQEP	Cargo, No additional information
ADVANTAGE ARROW	51.97532	3.99102	V7KZ7	Tanker, all ships of this type
ADVANTAGE PARK	51.91815	3.62529	V7UA5	Tanker, all ships of this type
ADVANTAGE PARTY	51.4586	1.53248	V7TU5	Tanker, all ships of this type
AFRODITI	50.55977	-1.01764	A8XT8	Tanker, all ships of this type
AILSA	57.19584	1.96366	MALZ3	Tanker, No additional information
AINAZI	51.94992	3.74011	V7LO7	Tanker, No additional information
AKACIA	52.81583	2.12767	CQIF	Cargo, No additional information
ALANGOVA	49.89686	-2.35655	TCTC2	Tanker, No additional information
ALANIS	51.34759	1.84692	V2EL6	Cargo, No additional information
ALEXANDER	53.51479	5.25643	V2GX8	Cargo, all ships of this type
ALEXIA	54.73945	-0.03802	V7A2241	Tanker, all ships of this type
ALFA ITALIA	52.20557	4.24432	C6SO8	Tanker, No additional information
ALPPILA	53.40428	4.58323	OJOF	Cargo, all ships of this type
ALSIA SWAN	50.00864	-1.80075	9HA2334	Tanker, all ships of this type
ALTERA WAVE	58.89062	-3.07945	LAKU8	Tanker, Hazardous category B
ALTERA WIND	59.22167	-1.91833	LAKV8	Tanker, all ships of this type
ALVHEIM FPSO	59.56688	1.99628	LNEJ	Other Type, Hazardous category A
ALYTUS	53.73071	0.36827	5BXP5	Cargo, all ships of this type
AMADEUS	51.19911	1.59406	J8B4062	Cargo, No additional information
AMADEUS DIAMOND	50.33644	0.30699	PBCS	Cargo, No additional information
AMBER SKY	52.2037	3.01048	CQEH8	Cargo, all ships of this type
AMBERES	51.38831	4.16965	OT3922	Cargo, all ships of this type
				- · · · · · · · · · · · · · · · · · · ·



AMELIE BORCHARD	53.55767	-4.24417	V2GC4	Cargo, Hazardous category C
AMOENITAS	52.18887	2.97422	V2FB4	Cargo, all ships of this type
AMUR STAR	50.27157	-0.30532	9HA2141	Tanker, all ships of this type
ANDESBORG	57.80448	10.76268	PCLC	Cargo, all ships of this type
ANDROMEDA	55.27872	5.88243	SYMH	Tanker, No additional information
ANINA	57.80017	10.61333	CQYU	Cargo, Hazardous category A
ANMI	57.36949	5.18776	C6UJ8	Cargo, No additional information
ANNA	52.02813	2.74065	ZDKC9	Cargo, Reserved for future use
ANNE DORTE	51.20533	-3.37757	PCKF	Cargo, all ships of this type
ANNIKA BRAREN	54.40827	5.35947	DGTH2	Cargo, all ships of this type
ANTONIS	53.5581	8.16869	9HA4469	Tanker, all ships of this type
AQUA JUNIOR	58.91	6.0486	LEHA	Cargo, all ships of this type
AQUA MALOY	59.2556	5.34047	LFGM	Cargo, all ships of this type
AQUASMERALDA	57.77544	9.55803	D5YW3	Tanker, all ships of this type
ARABELLA	52.03041	3.95342	5BXD5	Tanker, all ships of this type
ARCTIC BREEZE	51.77417	-5.26089	9HNE8	Tanker, No additional information
ARDMORE SEALEADER	53.00933	1.7417	V7HG4	Tanker, all ships of this type
ARETEA	52.6152	2.63087	SVCB3	Tanker, all ships of this type
ARGONAUT	52.44838	3.76703	V7MK8	Cargo, all ships of this type
ARIES J	53.58881	8.15471	5BDS3	Cargo, Hazardous category A
ARION	51.91932	3.73741	P3QY9	Cargo, all ships of this type
ARKLOW ACE	50.05871	-6.00986	EI-WR-7	Cargo, all ships of this type
ARKLOW ARROW	56.14674	4.29244	EIXT4	Cargo, all ships of this type
ARKLOW BAY	52.44885	-5.42263	PBPI	Cargo, all ships of this type
ARKLOW CLIPPER	53.96962	-6.03691	EIYZ9	Cargo, all ships of this type
ARKLOW FREEDOM	50.19789	-6.86524	EIEX9	Cargo, all ships of this type
ARKLOW FUTURE	50.2375	-3.13067	EIGD5	Cargo, all ships of this type
ARKLOW MILL	53.61187	0.39974	EIJD9	Cargo, No additional information
ARKLOW WILLOW	51.06766	1.85871	EIVV3	Cargo, all ships of this type
ARKLOW WIND	55.39134	4.53033	EIUX5	Cargo, all ships of this type
ASIAN NAGA	49.04838	-4.92253	3FOV4	Cargo, all ships of this type
ASKHOLMEN	51.32802	2.52829	V7RU4	Tanker, all ships of this type
ASTER ALVAR	51.93393	3.74768	ZDRL6	Tanker, all ships of this type
ASTRID	51.65509	4.31498	PF8337	Cargo, No additional information
ASTROL 4	55.16582	-7.08744	UBXU7	Cargo, all ships of this type
ATLANTIC GUARD	50.09586	-2.33148	V7A2284	Tanker, all ships of this type
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ATLANTIC TWIN	51.83029	3.41238	ZDNZ7	Tanker, No additional information
ATLANTIC WIND	51.77331	3.34169	ZDNM4	Tanker, No additional information
ATLANTICA BELL	52.14575	3.58451	V7A5242	Tanker, No additional information
AURORA	51.3683	4.08614	LX2285	Tanker, all ships of this type
AUTO ADVANCE	49.49011	-3.70863	CQKD	Cargo, all ships of this type
AUTOPRIDE	55.38667	7.392	CQQE	Cargo, all ships of this type
AUTOPROGRESS	57.50642	9.3552	CQQF	Cargo, all ships of this type
AUTOSKY	50.25766	-0.16914	CQQA	Cargo, all ships of this type
AVISO II	51.67312	4.38173	DF3049	Cargo, all ships of this type
AZURYTH	53.80847	7.96841	5BCA4	Tanker, all ships of this type
B GAS MAUD	50.5291	0.33643	9HA4514	Tanker, all ships of this type
BALTIC FAVOUR	57.64465	10.59225	9HA3692	Tanker, all ships of this type
BALTIC MERCHANT	53.86092	6.60106	YLRG	Cargo, all ships of this type
BALTIC SAPPHIRE	53.63035	-0.16335	9HA3689	Tanker, all ships of this type
BARBARA-B	50.56384	1.1406	V2HE6	Cargo, all ships of this type
BASSILEVOUSA	52.08083	2.76871	SVCQ7	Tanker, all ships of this type
BBC AQUAMARINE	50.43214	0.71565	V2FM2	Cargo, all ships of this type
BBC ICELAND	49.91104	-3.21212	V2HL3	Cargo, all ships of this type
BBC LIVORNO	57.62238	10.59317	V2QJ2	Cargo, all ships of this type
BBC OCEAN	51.7772	3.32481	V2FD6	Cargo, all ships of this type
BEATA	57.22361	8.50413	CQYC	Cargo, all ships of this type
BEAUFORT	51.36764	3.85283	PA6347	Cargo, all ships of this type
BELMAR	57.62172	10.69552	9HA2852	Tanker, all ships of this type
BERGEN TS	57.60595	8.94349	9HA4477	Tanker, all ships of this type
BERGENSFJORD	59.17083	5.46359	LNZZ	Passenger, all ships of this type
BETAGAS	51.69669	3.30473	V2KA8	Tanker, all ships of this type
BF CARTAGENA	51.91484	3.40727	5BBJ3	Cargo, Hazardous category B
BG ONYX	53.86185	-5.43239	CQLP	Cargo, Hazardous category A
BIGROLL BISCAY	49.49674	-3.67035	CQAZ7	Cargo, No additional information
BIT FORCE	57.67939	8.90487	PCXW	Tanker, all ships of this type
BITFLOWER	52.71112	-5.86169	SBJE	Tanker, No additional information
BJORG	51.0537	1.67536	V2PW8	Cargo, all ships of this type
BLEO HOLM	58.10177	-1.43752	PJAI	Tanker, all ships of this type
BLUE MARLIN	52.21497	4.2272	9HA4605	Cargo, all ships of this type
BOKNAFJORD	59.14854	5.56341	3YQA	Passenger, all ships of this type
BOMAR VESTA	48.83249	-5.41548	9HA3676	Tanker, all ships of this type
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BONITA	55.25504	6.18131	YLBA	Cargo, all ships of this type
BONTRUP PEARL	52.52247	4.30874	C6KB2	Cargo, all ships of this type
BORE BAY	55.4663	4.96384	OJHF	Cargo, No additional information
BOSPHORUS QUEEN	49.79018	-6.72873	HOQB	Cargo, all ships of this type
BOTAFOGO	52.18932	4.23986	9HA4294	Tanker, No additional information
BOTHNIA	58.65618	0.55907	CQAN6	Tanker, all ships of this type
BOTHNIABORG	51.36747	2.73327	PBIO	Cargo, No additional information
BOYNE	49.75622	-0.18758	9HA3865	Tanker, all ships of this type
BRAVEWIND	55.45261	8.47679	CQEE9	Cargo, No additional information
BREIVIKEN	52.20666	3.68366	LAED8	Tanker, all ships of this type
BRIGITTE M	51.93064	2.77042	V2HM8	Cargo, all ships of this type
BRITANNIA SEAWAYS	53.636	-0.18742	OZTS2	Cargo, No additional information
BRO ANNA	51.44221	-5.29934	9V3609	Tanker, No additional information
BRO NIBE	55.03997	9.51972	OXGY2	Tanker, No additional information
BRO NORDBY	54.68918	-5.68816	OXHE2	Tanker, all ships of this type
BUCCOO REEF	53.72666	-0.24869	7JSY	Tanker, Hazardous category B
BW CATCHER	56.77056	0.7156	3EZP5	Tanker, No additional information
BW GALATEA	52.44535	4.04548	9V3065	Tanker, No additional information
BW PRINCE	49.71532	-5.3596	LADQ7	Tanker, all ships of this type
BW RYE	51.86516	3.42376	MEHV5	Cargo, all ships of this type
CALIDA	54.11258	0.6244	9HA2853	Tanker, all ships of this type
CALISTO	53.9125	7.86154	CQEX6	Cargo, all ships of this type
CAPEWATER	53.84031	8.88721	PBPQ	Tanker, all ships of this type
CASPIAN SEA	57.60912	10.70258	D5SU6	Tanker, all ships of this type
CATHY JO	53.89077	5.00716	PDVO	Cargo, all ships of this type
CB BALTIC	56.54796	6.87559	CQAS5	Tanker, No additional information
CELESTINE	51.49088	0.83465	9HA4248	Cargo, all ships of this type
CELINA	51.3081	-3.4417	V2GV5	Cargo, all ships of this type
CELINE	51.34438	3.21926	9HA4424	Cargo, No additional information
CELTIC PIONEER	49.99763	-1.74433	MIOM8	Cargo, all ships of this type
CELTIC WARRIOR	51.59089	2.13622	2IBU5	Cargo, all ships of this type
CELTICA HAV	48.70157	-6.11987	C6UL3	Cargo, all ships of this type
CEMCOASTER	53.3458	-5.79645	CQET3	Cargo, all ships of this type
CEMLUNA	57.63399	9.92093	C4BX2	Cargo, all ships of this type
CEMSOL	55.95162	7.58451	C4WH2	Cargo, all ships of this type
CHAMPION CONTEST	53.25713	3.42711	LAEN8	Tanker, all ships of this type



CHANTACO	51.57796	2.11881	FMLM	Tanker, Hazardous category B
CHARLOTTE ESSBERGER	50.80333	-5.57367	CQEA6	Tanker, Hazardous category B
CHASSELAS	51.44722	2.68346	3EHP6	Cargo, all ships of this type
CHEM ALTAMIRA	54.70405	-0.89199	D5FU2	Tanker, all ships of this type
CHEM MIA	49.90865	-2.4327	D5TG7	Tanker, all ships of this type
CHEM NEW YORK	52.06054	3.71148	D5FT9	Tanker, all ships of this type
CHEM NICHOLAS	52.931	3.59566	A8MS5	Tanker, all ships of this type
CHEM ROTTERDAM	50.29169	-0.27063	V7EJ3	Tanker, all ships of this type
CHEMICAL CHALLENGER	51.17899	1.69134	HOFB	Tanker, all ships of this type
CHRISTINA	51.5732	2.06395	D5HS9	Cargo, all ships of this type
CHRISTINA	58.07019	11.08271	LIJG3	Tanker, Hazardous category B
CITY OF ROTTERDAM	53.77366	4.92313	3FUA7	Cargo, all ships of this type
CL HEIDI	54.04805	8.12831	VRSD3	Cargo, all ships of this type
CLARA	53.00522	4.02662	V2QX8	Cargo, all ships of this type
CLARA K	49.97007	-1.95731	PHJI	Cargo, all ships of this type
CLEMENTINE	53.66933	-0.23502	ONDK	Cargo, all ships of this type
CLI PRIDE	51.68841	2.51964	V2FI9	Cargo, all ships of this type
CLIPPER EIRENE	56.59219	7.37788	LAEB8	Tanker, Hazardous category D
CLIPPER EOS	48.89207	-7.07026	LAFM8	Tanker, Hazardous category B
CLIPPER HARALD	52.123	3.65271	LALM5	Tanker, Hazardous category D
CLIPPER POINT	53.34224	-6.12374	C4YV2	Cargo, Hazardous category D
CLYDE FISHER	51.60908	3.36858	C6TZ4	Tanker, all ships of this type
CMA CGM MURCIA	51.61661	1.32734	9HA5533	Cargo, all ships of this type
COBALT SUN	51.94996	3.84412	D5UG8	Tanker, all ships of this type
COBALTWATER	49.76821	0.01473	PHGO	Tanker, Hazardous category B
COLORADO STAR	53.6847	6.05273	9HA2189	Tanker, No additional information
COMMODORE GOODWILL	49.85767	-1.922	C6NU8	Cargo, Hazardous category C
CONDOR PATAGONIA	49.53936	-4.1273	V2HJ3	Cargo, Hazardous category A
CONTAINERSHIPS 6	52.13517	3.61617	DABH	Cargo, No additional information
COPERNICUS	52.81089	3.24012	C6BV4	Tanker, all ships of this type
CORAL LACERA	53.5754	5.46561	D5ES2	Tanker, No additional information
CORAL LEAF	50.19315	-1.65407	PHNI	Tanker, Hazardous category C
CORAL LOPHELIA	53.08014	4.4249	D5HG9	Tanker, all ships of this type
CORAL SIDEREA	55.99992	-2.04528	PDWH	Tanker, all ships of this type
CORALIUS	58.32696	5.91879	SCDL	Tanker, No additional information
CORDULA JACOB	51.32667	2.5489	A8XG7	Tanker, No additional information



CORELLI	52.05427	3.9064	5BPL5	Tanker, Hazardous category B
CROWN JADE	56.23403	7.11008	C6DV2	Cargo, all ships of this type
CSL ELBE	55.55504	6.74581	9HJE8	Cargo, all ships of this type
CUMBRIAN FISHER	50.61953	-1.05162	C6TR9	Tanker, No additional information
DALE	50.83904	-1.32891	V7A2348	Tanker, all ships of this type
DANITA	55.5024	9.64564	CQAC9	Cargo, No additional information
DEE FISHER	50.52983	-0.14134	ZDIJ3	Tanker, all ships of this type
DEE4 FIG	48.95452	-5.63303	OZBB2	Tanker, all ships of this type
DELTA CAPTAIN	57.64382	10.62385	D5WO3	Tanker, No additional information
DELTA PIONEER	52.19318	4.26862	SYIO	Tanker, all ships of this type
DELTA STAR	49.61844	-0.43735	SVBV4	Tanker, Hazardous category A
DESEO	51.38278	3.25829	OT3779	Cargo, all ships of this type
DIAMANT	51.41799	3.92052	OT5554	Cargo, all ships of this type
DMITRY MENDELEEV	50.0848	-1.1654	UBJV8	Tanker, Hazardous category A
DOGGERSBANK	51.71397	3.2553	PHHC	Cargo, all ships of this type
DOLE EUROPA	50.40983	-0.594	C6FS5	Cargo, all ships of this type
DONALD	49.86304	-2.61753	V7A2236	Tanker, No additional information
DONGEBORG	55.4167	6.3625	PCGD	Cargo, all ships of this type
DONIZETTI	53.9379	8.65089	5BXM4	Tanker, No additional information
DOROTHEA SCHULTE	49.45434	-4.2666	2FQB7	Tanker, Hazardous category D
DOUBLE MIRACLE	52.43036	4.01186	3EJM5	Cargo, all ships of this type
DOUWENT	52.73613	2.15816	D5EA6	Cargo, all ships of this type
DRAIT	53.73016	-6.18962	PHPW	Cargo, all ships of this type
DREAM	52.02757	3.84683	CQBJ	Cargo, Hazardous category A
DUBAI CHARM	50.00328	-2.96928	V7SB7	Tanker, all ships of this type
DUTCH SPIRIT	49.7376	-0.16149	PDTO	Tanker, No additional information
DUZGIT DIGNITY	51.55894	3.41909	TCNZ8	Tanker, all ships of this type
EAGLE BRISBANE	59.34913	1.04365	9V5378	Tanker, all ships of this type
EAGLE HAMILTON	53.54039	0.10902	2CWB2	Tanker, all ships of this type
EAGLE LYON	49.61957	-0.24581	9V5370	Tanker, all ships of this type
EARTH SUMMIT	51.34588	2.40612	9V2911	Tanker, all ships of this type
EASTERN VANQUISH	53.7283	-6.17317	2IXV6	Cargo, No additional information
ECO DREAM	53.43419	4.71665	V7MJ5	Tanker, all ships of this type
ECO GREEN	57.18867	5.32428	V7MJ6	Tanker, all ships of this type
ECO YOSEMITE PARK	49.96783	-2.09091	V7A2534	Tanker, all ships of this type
EDDA FAUNA	57.8163	4.53413	JWMZ3	Other Type, all ships of this type



EEMS COAST	53.68083	5.68339	PEFI	Cargo, No additional information
EEMS COBALT	53.59416	6.59342	PIFO	Cargo, all ships of this type
EFFY.D	51.37612	-3.30197	2JLS8	Other Type, Hazardous category B
EKMEN STAR	49.40262	-4.41923	8PAX6	Cargo, No additional information
ELBWATER	53.85456	9.01408	5BLW4	Cargo, Hazardous category A
ELBWAVE	53.69118	5.67129	5BZP4	Cargo, Hazardous category A
ELENA VE	52.53717	4.29215	A8WB4	Cargo, all ships of this type
ELI A	51.92483	3.39817	5LDI9	Cargo, Hazardous category C
ELISABETH	54.67276	-5.45591	PECG	Cargo, Hazardous category A
ELISE	49.98691	-4.60152	V2DC7	Cargo, all ships of this type
ELKA ELEFSIS	51.42406	2.6225	D5HM2	Tanker, all ships of this type
EMELIE DEYMANN	51.67532	4.38596	DJ7566	Cargo, No additional information
EMERALD SHINER	57.60043	10.88653	V7DR4	Tanker, all ships of this type
EMS HIGHWAY	55.5567	7.24443	P3NL8	Cargo, all ships of this type
ENDURANCE	49.81029	-3.87852	V2GJ3	Cargo, all ships of this type
ENDURANCE	49.15684	-4.60165	PBKO	Cargo, all ships of this type
ENERGIZER	53.44565	4.70673	PHAS	Cargo, No additional information
ENTERPRISE	51.38757	4.17746	PE4250	Cargo, No additional information
EPIC SUSUI	50.71861	-1.05099	9V2739	Tanker, all ships of this type
ERICUSA M	49.48338	-0.15653	IBCC	Tanker, No additional information
ETAGAS	51.92752	3.79528	V2HI9	Tanker, No additional information
EUROSAILOR	51.41445	2.62723	9HA5376	Tanker, all ships of this type
EVANS SPIRIT	52.82866	4.20992	XJBZ	Cargo, all ships of this type
EXPORTER	56.15182	7.27634	OJDA	Cargo, No additional information
FAIRCHEM BLADE	54.03916	8.17042	V7BE8	Tanker, all ships of this type
FALCON BAY	51.92788	3.57529	9V6599	Tanker, all ships of this type
FALKFJORD	54.21754	7.41903	LANB5	Cargo, all ships of this type
FANTASIA	57.6275	10.8156	ICJY	Tanker, all ships of this type
FAROMAR	52.97676	1.29504	LXFB	Cargo, all ships of this type
FAST SAM	51.38961	2.93087	ONEJ	Cargo, all ships of this type
FEDERAL KATSURA	51.42244	2.6589	V7JT5	Cargo, all ships of this type
FEED RANA	58.82958	5.47131	LAEF8	Cargo, No additional information
FINNBORG	55.2821	0.16534	PCMN	Cargo, No additional information
FINNSTRAUM	57.77345	9.84134	LAJF5	Tanker, Hazardous category D
FJELLSTRAUM	58.42551	10.38616	LAWF7	Tanker, Hazardous category B
FLUVIUS PLYM	53.26035	-5.07304	C6AZ5	Cargo, all ships of this type



FOLDOY	59.19048	5.90246	LJTJ	Passenger, all ships of this type
FORTUNA I	53.47467	0.33217	PDDY	Tanker, Hazardous category A
FORTUNAGRACHT	51.33284	2.61049	PBUU	Cargo, all ships of this type
FREDO	53.65054	8.40897	DPCD	Cargo, all ships of this type
FREEDOM	54.05583	7.48974	WDB5483	Cargo, all ships of this type
FRI KVAM	57.4992	3.12674	5BAG4	Cargo, all ships of this type
FRI OCEAN	52.08988	-6.43594	C6VU7	Cargo, all ships of this type
FRI RIVER	57.43512	6.69833	C6DR5	Cargo, all ships of this type
FRI TIDE	50.74824	-1.37351	C6VW4	Cargo, all ships of this type
FRISIAN OCEAN	52.66988	3.55639	PCFY	Cargo, No additional information
FRISIANA	49.88919	-2.66197	PCEQ	Cargo, No additional information
FRONT JAGUAR	57.65113	10.67394	V7OK2	Tanker, all ships of this type
FUGRO SYNERGY	52.44286	4.4401	C6XR3	Other Type, all ships of this type
FUNDAMENT	51.37466	3.93923	PE5226	Cargo, No additional information
FURE VEN	57.74398	4.02879	SGVI	Tanker, Hazardous category A
FURE VITEN	51.79756	3.36137	SBOV	Tanker, all ships of this type
FUREVIK	49.47814	-0.09789	OZ2082	Tanker, No additional information
FUTURA	52.1369	3.69224	LALN8	Tanker, all ships of this type
FWN RUBY	49.90608	-5.45493	PCMQ	Cargo, all ships of this type
GAGARIN PROSPECT	52.12577	3.69127	D5QW7	Tanker, No additional information
GAIA DESGAGNES	57.05441	7.57622	CFA2990	Tanker, all ships of this type
GALVESTON HIGHWAY	51.40001	2.5835	3FAJ5	Cargo, all ships of this type
GANNET BULKER	54.09534	7.41871	V7TX5	Cargo, all ships of this type
GARIP BABA	50.60123	1.23997	TCA4801	Cargo, No additional information
GAS AGILITY	52.01869	3.54962	9HA4951	Tanker, all ships of this type
GAZELA	50.37093	-0.40726	5BYC3	Tanker, all ships of this type
GCL PARADIP	51.43418	2.65026	3E3955	Cargo, all ships of this type
GEMMA	51.44729	2.60289	9HA4802	Tanker, Hazardous category B
GERTRUDE OLDENDORFF	51.46605	2.72056	CQAG	Cargo, all ships of this type
GIANNUTRI	51.89872	3.51388	9HVX7	Tanker, all ships of this type
GIJON KNUTSEN	56.09267	4.267	OYOR2	Tanker, all ships of this type
GLEN LYON	60.35685	-4.0644	2GZH8	Other Type, Reserved for future use
GLOBE CLEOPATRA	53.67662	-4.60059	V7A2654	Cargo, all ships of this type
GOLDEN STRENGTH	52.44295	3.9846	V7XF7	Cargo, all ships of this type
GOLFSTRAUM	59.08007	3.70249	LAJK6	Tanker, Hazardous category B
GOUWENAAR 2	51.64418	4.26607	PA3519	Cargo, No additional information



GRAMPIAN EXPLORER	53.45953	1.7555	VQIE6	Cargo, all ships of this type
GRANDE TORINO	49.8731	-2.37374	IBQN	Cargo, all ships of this type
GREAT FOREST	51.43667	2.67956	A8UQ7	Cargo, No additional information
GREEN BODO	50.05678	-1.55963	C6XH3	Cargo, all ships of this type
GREEN K-MAX 3	53.63951	6.20864	D5RT5	Cargo, all ships of this type
GREETJE	54.31417	5.34543	PBMI	Cargo, all ships of this type
GRENDEL	51.39504	3.77249	DB3320	Tanker, all ships of this type
GRETA	49.56589	-1.00211	V2CZ5	Cargo, No additional information
GRETA K	53.60918	0.42701	9HA4346	Tanker, all ships of this type
GRIT CEMENT IV	51.65395	1.81575	3FDI3	Cargo, all ships of this type
GRUAUD LAROSE	51.41043	2.59092	V7A2651	Cargo, all ships of this type
GRYPHON A	59.36041	1.56785	MQSY9	Other Type, Hazardous category A
GUARDIANS	50.25139	-0.40522	H9SD	Tanker, No additional information
GUATEMALA	51.70924	4.60215	OT4880	Cargo, No additional information
GULF EXPRESS	49.64568	-3.27803	V2AS7	Cargo, all ships of this type
GURONI	51.01097	1.56201	9HA4670	Tanker, all ships of this type
GV ADVENTURE	53.6399	0.96262	21FE4	Other Type, no additional information
HAFNIA MIKALA	52.14615	3.69909	9HA4395	Tanker, all ships of this type
HAGLAND CARRIER	56.29572	6.03662	LAHA8	Cargo, all ships of this type
HAGLAND SAGA	55.75913	5.78003	LAXY7	Cargo, all ships of this type
HANS SCHOLL	52.45244	4.062	A8EU8	Tanker, No additional information
HAPPY PENGUIN	50.60465	0.40945	2GBB2	Tanker, all ships of this type
HAV NES	53.14421	4.36276	OZ2088	Cargo, all ships of this type
HAV SKANDIC	59.14119	5.35628	OZ2147	Cargo, all ships of this type
HEINRICH	49.76609	-4.08041	ZDFF7	Tanker, all ships of this type
HELENA GEERTJE	51.54893	3.98004	PE5179	Cargo, No additional information
HELENA SCHEPERS	54.41693	5.46376	CQEW6	Cargo, all ships of this type
HELGA	53.94805	-5.97302	D5BK2	Cargo, all ships of this type
HELGAFELL	52.25218	3.89531	OZ2049	Cargo, all ships of this type
HELIANTHUS	50.61719	1.2176	A8TT2	Cargo, all ships of this type
HELMUT	54.69328	-5.70905	CQIN7	Cargo, No additional information
HENDRIK S	58.58759	9.35719	PFCP	Cargo, No additional information
HENRIETTA KOSAN	59.23222	5.53193	9V7463	Tanker, Hazardous category D
HENRY MAERSK	52.12487	3.70906	OYYC2	Tanker, all ships of this type
HISTRIA GIADA	50.84333	-1.33428	9HYX8	Tanker, No additional information
HOEGH DETROIT	50.51435	0.99167	LAHE6	Other Type, all ships of this type



HUNZEDIJK	51.11624	1.32151	PCJB	Cargo, all ships of this type
HYDRUS	51.64054	4.25472	OT5232	Tanker, No additional information
ILE DE MOLENE	56.51317	7.30716	FMPZ	Cargo, all ships of this type
IMI	57.13231	8.08252	C6VT4	Cargo, all ships of this type
INA.XL	51.65969	4.14147	PE7409	Cargo, No additional information
INGRID KNUTSEN	58.83593	5.35844	2HER5	Tanker, Hazardous category A
INSPIRER	57.81475	4.53449	LAON8	Cargo, all ships of this type
ISIS	54.00293	8.24736	PHLD	Cargo, No additional information
ISLA DE BIOKO	51.15876	1.65577	3EJI6	Tanker, Hazardous category B
ISLAND CAPTAIN	56.36982	3.32828	3YHO	Other Type, all ships of this type
ISLAND CRUSADER	58.71068	2.99915	LCMH	Cargo, all ships of this type
IVER ABILITY	51.76566	3.32815	ZDPD8	Tanker, No additional information
JADELAND	50.79293	1.44505	CQER9	Cargo, all ships of this type
JAN	57.54151	8.85767	CQDL	Cargo, Hazardous category A
JEBRITT	51.54565	3.98405	PD3607	Cargo, all ships of this type
JOHN M CARRAS	52.17686	3.69251	SVBK5	Cargo, all ships of this type
JONGLEUR	54.07911	4.86679	YLPU	Cargo, all ships of this type
JORK	50.33622	-1.61506	P3CJ9	Cargo, all ships of this type
JOWI	51.95348	4.00043	PE9533	Tanker, all ships of this type
JS CHUKAR	55.05745	5.5621	9HA4214	Tanker, No additional information
JSP CARLA	53.58152	0.42072	CQIK4	Cargo, No additional information
JSP MISTRAL	50.02365	-3.98822	V2FD7	Cargo, No additional information
JSP RIDER	51.95767678	3.995932709	V2BT5	Cargo, Hazardous category A
JSP ROVER	51.95692	4.00556	CQED5	Cargo, Hazardous category A
JSP SLEIPNER	56.41092	6.14925	V2CB8	Cargo, all ships of this type
JUTLANDIA SWAN	56.10712	-3.09459	OYIO2	Tanker, all ships of this type
KAIROS	52.17001	4.21918	5BZQ4	Tanker, all ships of this type
KALKVIK	57.22767	4.1202	OZ2104	Cargo, all ships of this type
KAPITAN SAKHAROV	51.04388	1.41482	UAOU	Cargo, all ships of this type
KARINA C	52.07867	-6.94134	CQAY5	Cargo, all ships of this type
KARSOY	50.01597	-1.83405	TCXR3	Cargo, all ships of this type
KATE C	49.82476	-3.26277	CQAY3	Cargo, No additional information
KATELINA	51.79127	3.37948	ZDOA7	Tanker, Hazardous category C
KATRIN	53.93244	7.13504	9HA3001	Cargo, all ships of this type
KEY MARMARA	57.77262	8.04087	9HA2567	Tanker, all ships of this type
KEY SOUTH	57.71853	8.5792	9HA2267	Tanker, No additional information



KILSTRAUM	57.72	8.71187	LAWG7	Tanker, No additional information
KIRSTEN MAERSK	53.60597	0.45543	OYDH2	Tanker, No additional information
KIVALLIQ W.	49.86567	-2.6886	V7A5222	Tanker, No additional information
KL BRISFJORD	58.92613	-0.53766	5BFR3	Cargo, all ships of this type
KLAVERBANK	52.10155	3.09343	PCJI	Cargo, No additional information
KMARIN RESOLUTION	50.01947	-5.03172	2ICI4	Tanker, No additional information
KNARRLAGSUND	54.35973	5.01855	LAFW8	Cargo, all ships of this type
KNOKKE	51.83563	3.39393	ONIL	Tanker, No additional information
KOKSIJDE	51.69832	-5.02973	ONJH	Tanker, all ships of this type
KRITI JADE	49.94933	-2.2651	SVAT6	Tanker, all ships of this type
KROONBORG	53.03987	1.51135	PCGT	Other Type, all ships of this type
KYRAKATINGO	55.52591	5.62047	9HA4470	Tanker, all ships of this type
LACERTA	51.82078	3.34014	9HA4246	Tanker, all ships of this type
LADY HANNEKE	55.72541	6.46726	PDEQ	Cargo, all ships of this type
LADY HELENE	58.64062	4.00815	PBGU	Cargo, all ships of this type
LAKE ERIE	53.30768	-6.07774	V2CF1	Cargo, No additional information
LAMENTIN	51.40027	2.62324	FNKJ	Tanker, all ships of this type
LANCING	51.64038	-6.00336	C6DR9	Tanker, all ships of this type
LAURA	51.43979	3.66207	OJHH	Cargo, all ships of this type
LAURA H	50.6905	0.87817	ZDHU3	Tanker, all ships of this type
LAUWERSBORG	53.13316	4.35029	PHLM	Cargo, all ships of this type
LE HAVRE	51.41215	2.66316	C4PW2	Cargo, all ships of this type
LEO SUN	52.22456	3.26802	D5EP6	Tanker, No additional information
LEON ZEUS	51.81765	3.39124	3FTM5	Tanker, all ships of this type
LEVANT	51.44487	3.67578	PG5553	Cargo, No additional information
LINSI	53.01505	4.85877	PC3123	Cargo, all ships of this type
LISA	53.26069	1.15985	5BNE5	Cargo, all ships of this type
LOKHOLMEN	51.52887	-5.32473	V7RN2	Tanker, all ships of this type
LOMA	51.67749	4.38783	OT4263	Cargo, No additional information
LORELEI	52.21161	4.21375	V7CD3	Tanker, all ships of this type
LOUIS	49.47805	-0.1653	V2QJ6	Cargo, all ships of this type
LOVE STORY	51.39428	3.77073	OT3725	Cargo, No additional information
LUGANO	51.40043	2.60452	5LAU9	Tanker, Hazardous category A
LYDIA	51.66157	4.18736	PF4461	Cargo, No additional information
M/T NARCEA	53.0595	4.18968	CQMS	Tanker, all ships of this type
M/T PETRONORDIC	53.53459	2.68829	C6SU9	Tanker, all ships of this type



MAERSK AEGEAN	51.39965	2.56236	9V3498	Tanker, No additional information
MAERSK NIMBUS	52.41428	3.64916	OYQG2	Tanker, No additional information
MAIN XXI	51.58716	3.96061	PC4577	Cargo, No additional information
MAJESTY	51.70868	4.58954	FM4652	Cargo, No additional information
MALACCA HIGHWAY	49.91059	-4.69945	H9AT	Cargo, all ships of this type
MANISA KATE	49.34405	-3.83446	PCHH	Cargo, all ships of this type
MARGRETA	51.96	3.99549	PD5829	Cargo, No additional information
MARIETJE HESTER	50.13144	-3.25569	PHDB	Cargo, all ships of this type
MARISDY	51.35409	3.88051	PH8861	Cargo, No additional information
MARJA	51.36916	4.08927	PHBB	Cargo, Hazardous category B
MARTEN	51.15892	1.90318	5BNU3	Cargo, No additional information
MARTINA	50.4906	0.97005	V2HN4	Cargo, all ships of this type
MASTRAFJORD	59.14292	5.5905	LIAT	Passenger, all ships of this type
MED ANTARCTIC	49.3291	-4.11184	9HA4607	Tanker, Hazardous category B
MEDAL	53.31653	-5.01531	EBYI	Cargo, all ships of this type
MEKHANIK KOTTSOV	49.63726	-3.69122	UCOP	Cargo, all ships of this type
MEKHANIK MAKARIN	53.81905	8.10733	UCOR	Cargo, all ships of this type
MERCATOR	59.26205	5.34239	LGNV	Cargo, all ships of this type
MERSEY FISHER	56.9075	-2.12833	ZDFY4	Cargo, all ships of this type
MIKAL WITH	57.75157	-6.83553	LLSK	Cargo, all ships of this type
MINA DENIZ	48.957	-5.61524	9HA4952	Tanker, all ships of this type
MINDORO	52.15322	3.56344	9HA4295	Tanker, No additional information
MINERVA ELEONORA	57.27102	7.618	SWAK	Tanker, all ships of this type
MINERVA LEO	50.63382	-1.05936	SVCD6	Tanker, all ships of this type
MINERVA LYDIA	54.09012	5.09687	9HA3058	Tanker, No additional information
MISSISSIPPI STAR	53.47543	-3.3733	9HA2441	Tanker, No additional information
MN PELICAN	48.88587	-5.74468	FMLR	Cargo, Hazardous category A
MONA SWAN	50.71246	-1.04481	OWGJ2	Tanker, Hazardous category A
MORNING CONDUCTOR	48.79131	-7.21974	3FHA3	Cargo, all ships of this type
MRC EMIRHAN	50.22507	-0.47282	9HUY9	Tanker, Hazardous category B
MSC BETTINA	51.44492	2.65027	HPFG	Cargo, Hazardous category A
MSC ELKE F	57.51072	8.59428	5BWZ4	Cargo, No additional information
MT AURELIA	53.62273	8.14172	DDNW	Tanker, all ships of this type
MTM KOBE	51.93539	3.76339	9V5427	Tanker, all ships of this type
MTM POTOMAC	51.69745372	-5.0521933	9V6611	Tanker, Hazardous category B
MTM ROTTERDAM	52.13574	3.67714	VRIV7	Tanker, No additional information



MUSIC	49.93078	-4.95665	CQBO	Cargo, Hazardous category B
MV SCOT CARRIER	57.77699	11.0399	MDYB3	Cargo, all ships of this type
NABUCCO	52.35836	2.6459	5BXQ4	Tanker, all ships of this type
NAJADE	52.31669	3.86376	PBZC	Cargo, all ships of this type
NANSEN SPIRIT	50.44484	0.72186	C6YA9	Tanker, all ships of this type
NAVI BALTIC	53.65099	6.17753	CQYE	Cargo, Hazardous category A
NAVIG8 AMESSI	51.93648	3.79455	V7GX5	Tanker, all ships of this type
NAVIG8 PERSEVERANCE	50.47257	-0.98281	V7IP3	Tanker, all ships of this type
NAVIG8 PRESTIGE JKB	52.05269	3.85341	V7XK9	Tanker, all ships of this type
NAVIGATOR EUROPA	51.45994	2.65589	D5FZ3	Tanker, all ships of this type
NAVIGATOR LIBRA	51.69201	2.28053	A8ZD6	Tanker, all ships of this type
NAVIGATOR LUGA	52.21178	4.25842	D5KV9	Tanker, all ships of this type
NCL HAUGESUND	53.90449	4.85999	V2BU3	Cargo, Hazardous category A
NEPTUNE	51.54657	2.6174	MCHJ6	Cargo, all ships of this type
NEW YORK	51.70324	4.56496	OT4798	Tanker, all ships of this type
NINA	52.15452	-6.97039	5BTL4	Cargo, No additional information
NJORD	56.86866	8.05754	PDHA	Cargo, all ships of this type
NO LIMIT	51.35794	4.23395	PI2203	Cargo, No additional information
NORD GARDENIA	51.69949	-5.0612	OWMU2	Tanker, No additional information
NORD LIBRA	53.77396	0.48537	3EKF6	Cargo, all ships of this type
NORD SWAN	52.17567	3.66483	OZGU2	Tanker, No additional information
NORDIC	50.84049	-1.33078	OZTY2	Tanker, all ships of this type
NORDIC JOSEPHINE	49.9979	-5.0434	D5UB7	Tanker, all ships of this type
NORDIC NELLY	53.56113	-4.53831	OXNH2	Tanker, Hazardous category B
NORDIC OSHIMA	53.64081	6.16956	V7A4562	Cargo, all ships of this type
NORDICA	51.95218	3.99392	PCSK	Cargo, No additional information
NORDWIND	51.64121	4.09013	DB9526	Cargo, all ships of this type
NORMAND OCEAN	58.49672	1.72069	LFNI3	Cargo, all ships of this type
NORTHERN LIGHT	55.73399	6.1248	V7WG4	Tanker, No additional information
NORTHSEA BETA	49.91124	-2.04855	9HA2594	Tanker, Hazardous category B
NS CENTURY	52.63739	2.53872	A8IJ8	Tanker, all ships of this type
NS CHALLENGER	54.12074	7.44357	A8FD6	Tanker, No additional information
NS CONCEPT	57.44619	3.85709	A8FD8	Tanker, No additional information
NS CONCORD	52.13278	3.64074	A8FD7	Tanker, No additional information
NS LOTUS	58.71388	3.53212	A8LV2	Tanker, No additional information
NS POINT	50.56123	1.16633	A8LV3	Tanker, No additional information



OBORISHTE	53.72217	0.33707	9HA4363	Cargo, all ships of this type
OLYMPIC VISION	49.72189	-0.72962	5LDB3	Tanker, all ships of this type
OLYMPIYSKY PROSPECT	52.59778	2.98494	A8TH3	Tanker, all ships of this type
OLYMPUS	59.35934	4.62212	SBGI	Tanker, all ships of this type
OMER DADAYLI	51.88926	-6.31358	HPXW	Cargo, all ships of this type
ONEGO DUERO	51.66395	2.22484	PEHW	Cargo, all ships of this type
ORANGE STREAM	50.67307	1.31047	PJDC	Cargo, all ships of this type
ORIENT	51.67663	4.38507	PI2185	Cargo, No additional information
ORION	52.94747	4.30072	V2EN3	Cargo, all ships of this type
ORKO	53.14683	4.499	3EKW4	Cargo, all ships of this type
OSLO CARRIER 2	52.45555	3.64685	9V7736	Cargo, all ships of this type
OSTANHAV	53.06005	4.40909	OZ2128	Cargo, all ships of this type
OVERWAARD	51.71174	4.609	PF2243	Cargo, No additional information
OXFORD	51.65917	4.34047	OT2889	Cargo, No additional information
OYSTER	51.46067	2.68459	3EWT4	Cargo, No additional information
PACIFIC COBALT	51.91863	3.54025	D5WK5	Tanker, all ships of this type
PACIFIC KOHINOOR	51.93447	3.61942	5LBJ6	Tanker, all ships of this type
PACIFIC SAPPHIRE	50.5937	-1.08515	V7A4442	Tanker, all ships of this type
PANAYIOTA K	51.92645	3.5959	5BYU2	Cargo, all ships of this type
PANTA RHEI	50.13658	-3.38209	PBRB	Cargo, No additional information
PARITY	56.80651	10.64566	V7VP4	Cargo, all ships of this type
PAROS	51.93783	3.80907	SVCE4	Tanker, all ships of this type
PATAGONIA	51.79943	3.39004	CQEE6	Tanker, all ships of this type
PATNOS	57.77572	7.61838	CQEJ4	Tanker, Hazardous category B
PAUL E	52.76363	1.99338	ZDGV9	Tanker, Hazardous category A
PAULA C	50.29154	-0.33265	2AHU2	Cargo, all ships of this type
PEAK ANFIELD	58.25037	8.70801	V2OD4	Cargo, all ships of this type
PECARO	51.9558	3.99537	PB6199	Cargo, No additional information
PECHORA STAR	50.05808	-1.4943	9HA2788	Tanker, No additional information
PENGALIA	49.83689	-5.05685	CQEC8	Cargo, all ships of this type
PENHAR	49.12469	-5.14775	PBXQ	Cargo, No additional information
PERMIAN LADY	56.11663	-3.07657	9V3146	Tanker, all ships of this type
PERSEUS N	51.84009	3.36782	A8PR8	Tanker, all ships of this type
PEYTON LYNN C	51.60295	3.38095	V2HD8	Cargo, No additional information
PGC EIRINI	56.13903	-3.03189	9HA4714	Tanker, all ships of this type
PHANTOM	50.67465	1.27007	V2GZ3	Cargo, No additional information



PINCHAT	52.46642	3.80523	H8IS	Cargo, all ships of this type
PIONEERING SPIRIT	51.96118	3.97641	9HA4112	Other Type, all ships of this type
PIZ SARDONA	51.69224	4.53437	PA3137	Tanker, No additional information
PLUTO	56.10493	-2.68228	V2EF4	Cargo, Hazardous category A
POLDERDAM	51.66148	4.181	OT3125	Cargo, No additional information
POUWEL S	51.61223	4.04224	PH2522	Tanker, all ships of this type
PREGOL HAV	55.69313	-4.9995	V2QO3	Cargo, all ships of this type
PRESINGE	54.03661	7.50403	3EOM6	Cargo, Hazardous category D
PROUD	52.76712	1.8244	PBUI	Cargo, all ships of this type
PS ROMA	51.69795716	-5.036168458	IBHJ	Tanker, No additional information
PUNA	57.69123	10.61775	D5UL5	Cargo, all ships of this type
PURITY	51.69545	4.48134	OT5513	Tanker, all ships of this type
PUTFORD ACHIEVER	53.29968	2.50772	MIYK3	Cargo, all ships of this type
RAMELIA	51.9514	3.754	SGWI	Tanker, No additional information
RAMONA	52.17716	4.23515	SFGZ	Tanker, all ships of this type
RANDGRID	58.58395	1.73618	C6YM8	Tanker, No additional information
RANDZEL	51.7733	2.64421	ZDHO6	Cargo, No additional information
RAUNEFJORD	59.16803	5.49973	LNWU	Passenger, all ships of this type
RED KESTREL	50.77245	-1.31154	MEGW6	Cargo, Hazardous category D
RIDGEBURY GALILEO	57.68061	10.66972	D5GA4	Tanker, all ships of this type
RIVA	51.44658	3.93785	PE2234	Cargo, all ships of this type
RIVERSIDE	50.33502	-1.03077	9HA5289	Tanker, all ships of this type
RIX STREAM	56.14909	10.28484	5BML5	Cargo, all ships of this type
RODOPI	53.95283	-6.01977	9HA2990	Cargo, all ships of this type
RONNIE	53.78227	6.73585	V2HJ4	Cargo, all ships of this type
ROZTOCZE	53.77053	0.44713	C6WU3	Cargo, all ships of this type
RUBYLAND	53.55943	0.53218	CQES2	Cargo, all ships of this type
RUNA	54.19838	6.71383	5BXL5	Cargo, No additional information
SAANA	51.403	-5.19783	5BUC5	Cargo, all ships of this type
SAETTA	49.67809	-5.36728	V7A2088	Tanker, all ships of this type
SAG GOOD TIMING	54.64807	-1.14135	V7A4896	Cargo, Hazardous category A
SAIPEM 3000	56.28518	-2.3048	C6SW6	Other Type, all ships of this type
SALUDO	51.65018	4.28237	PB4393	Tanker, all ships of this type
SAMSKIP CHALLENGER	54.61685	7.88382	8PTT	Cargo, all ships of this type
SAMSKIP COMMANDER	52.15912	3.77602	8PVT	Cargo, No additional information
SAMSKIP EXPRESS	53.3161	-6.08045	CQBL	Cargo, all ships of this type



SAMSKIP INNOVATOR	53.09298	0.99104	5BEX3	Cargo, Hazardous category A
SANTA RITA	51.8957	3.41372	OXCR2	Cargo, all ships of this type
SARA BORCHARD	52.99349	-5.80058	CQEJ	Cargo, all ships of this type
SAVA	51.419	1.43499	YJWH6	Cargo, No additional information
SAVITA NAREE	53.43704	-4.08721	9V5030	Cargo, all ships of this type
SCAN FJORD	53.5716	5.59117	8PWR	Cargo, all ships of this type
SCF NEVA	52.12505	3.67348	D5KC2	Tanker, all ships of this type
SCORPIO	57.79248	9.74021	ZGHE8	Tanker, all ships of this type
SCOT BERLIN	53.82128	-4.22624	9HA4092	Tanker, No additional information
SCOT EXPLORER	53.28987	4.53114	MGIE2	Cargo, all ships of this type
SCOT NAVIGATOR	53.70874	-0.3662	MBES8	Cargo, all ships of this type
SCOT RANGER	55.88968	-1.85349	MIJG6	Cargo, all ships of this type
SCRAPHUNTER	51.69546	4.46651	PB8085	Cargo, all ships of this type
SEA INSTALLER	53.61312	-0.08143	OYPY2	Other Type, all ships of this type
SEABRAVERY	57.47682	10.70413	9HZS7	Tanker, Hazardous category A
SEAEXPRESS	55.02825	9.47404	9HA3260	Tanker, riazardous category A Tanker, all ships of this type
SEAFRONTIER	50.12804	-0.93026	VRHA3	Tanker, No additional information
SEAHAKE	52.51676	4.3367	DEEI	Tanker, No additional information
SEAMERIDIAN	51.51345	2.0774	VRIK8	Tanker, all ships of this type
SEAOATH	51.64167	2.2213	9HBO8	Tanker, Hazardous category A
SEAPIKE	51.4068	3.22722	DEHR	
SEAPRIDE	48.97595	-8.2895	9HA3272	Tanker, Hazardous category B
				Tanker, all ships of this type
SEATRUCK PANORAMA SEATRUCK	51.67062	-6.16363	5BKX2	Cargo, No additional information
PERFORMANCE	53.97146	-5.16464	2FGR4	Cargo, No additional information
SEATRUCK POWER	53.50756	-5.16509	2FCX7	Cargo, Hazardous category A
SEATRUCK PRECISION	53.94384	-4.11446	2FMI8	Cargo, No additional information
SEATRUCK PROGRESS	53.56602	-3.8061	2EUK3	Cargo, Hazardous category A
SEAWAYS AMBROSE	52.19243	3.56475	V7JP4	Tanker, all ships of this type
SEAWAYS CHANIA	53.38882	4.52957	V7JW4	Tanker, Hazardous category A
SEDRATA	51.4198	3.96464	7THC	Cargo, all ships of this type
SELIN D	53.84145	4.98763	9HDX8	Tanker, No additional information
SEVEN PEGASUS	57.79993	1.83867	A8SH2	Other Type, no additional information
SEVKETTIN SONAY	51.62841	2.38081	3FRL8	Cargo, No additional information
SEYCHELLES PATRIOT	53.90508	7.47916	S7VR	Tanker, all ships of this type
SHEKSNA	57.35517	8.65528	TJMC49	Cargo, all ships of this type
SIBUR TOBOL	56.92354	7.36875	D5CM8	Tanker, Hazardous category D
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SIDER ATLANTIC	57.34862	3.73641	CQFY	Cargo, all ships of this type
SIDER LUCK	49.81556	-2.75794	CQLX	Cargo, all ships of this type
SIER	53.43198	5.77004	PG6257	Passenger, all ships of this type
SIERRA LAUREL	52.47087	3.66754	PJBQ	Cargo, No additional information
SIGMAGAS	50.70103	-1.03435	V2MQ	Tanker, all ships of this type
SILVER BREEZE	53.07456	4.41478	LAHP6	Cargo, all ships of this type
SILVER COPENHAGEN	58.43741	5.29502	LAHD6	Cargo, all ships of this type
SILVER HEBA	57.06952	7.90243	VRPS5	Tanker, all ships of this type
SILVER MONIKA	50.53199	-2.23563	V7FZ2	Tanker, all ships of this type
SILVER MUNA	52.61296	3.02916	VRPS4	Tanker, all ships of this type
SKYLIGHT	53.49233	-3.42267	D5YM8	Cargo, Hazardous category A
SLOMAN DISCHARGER	49.479	-0.131	V2GZ6	Cargo, No additional information
SLOMAN HERAKLES	56.09264	-3.11623	V2FY4	Tanker, No additional information
SLOT LOEVESTEIN	51.3929	4.17179	DA5879	Tanker, No additional information
SMP ARKHANGELSK	52.26935	-5.53808	UBRV5	Cargo, all ships of this type
SNOWLARK	53.18903	0.61848	J8B3277	Cargo, all ships of this type
SOLA TS	54.0631	4.43407	9HA4480	Tanker, all ships of this type
SOLAR KATHERINE	50.98756	1.0729	3FWO	Tanker, all ships of this type
SOLAR SKYLER	52.69104	3.14624	V7A2675	Tanker, all ships of this type
SOLOMON SEA	57.62681	10.71567	D5LG8	Tanker, all ships of this type
SOMTRANS XVII	51.52775	4.01241	PD4609	Tanker, all ships of this type
SONGA JADE	49.55678	-0.1312	9HA2077	Tanker, all ships of this type
SONGA PEARL	52.87602	3.01012	9HA4851	Tanker, all ships of this type
SONGA RUBY	48.78953	-5.88297	9HA4874	Tanker, all ships of this type
SONGA SAPPHIRE	51.86091	3.28984	9HA4873	Tanker, all ships of this type
SONORA	51.65921	4.1913	PB9020	Tanker, all ships of this type
SORMOVSKIY-3055	56.63542	7.42708	UAAO	Cargo, all ships of this type
SORMOVSKIY-3057	57.37017	8.90861	UCVL	Cargo, all ships of this type
SORMOVSKIY-3063	50.517	-5.862	UCYQ	Cargo, all ships of this type
SPANACO FIDELITY	50.32543	-0.53475	V2QR9	Cargo, all ships of this type
SPEELMAN	51.65365	4.29284	PH6149	Tanker, No additional information
ST SARA	54.08183	8.139	FMLH	Tanker, all ships of this type
ST SOLENE	53.37065	0.91318	FVDG	Tanker, all ships of this type
STAR PLOEG	53.00295	3.29709	ZGFI5	Tanker, all ships of this type
STAV VIKING	51.93317	3.71399	LAGZ7	Tanker, all ships of this type
STAVANGER POSEIDON	50.60014	-1.10718	LAHE8	Tanker, all ships of this type



STAVFJORD	57.92368	11.37362	LAHA7	Tanker, all ships of this type
STELLA VIRGO	51.59672	1.86464	PHKQ	Tanker, No additional information
STEN ARNOLD	54.03512	8.14977	ZDIB2	Tanker, all ships of this type
STEN BALTIC	49.74652	-0.175	LADY6	Tanker, all ships of this type
STEN FJELL	53.84152	8.87549	ZDJF5	Tanker, all ships of this type
STENA HIBERNIA	54.43433	-4.28364	2HBG6	Cargo, No additional information
STENA IMPRIMIS	52.44321	4.01765	MBPR7	Tanker, Hazardous category B
STENA IMPULSE	52.14739	3.59923	ZCEM2	Tanker, Hazardous category B
STENA SCOTIA	54.42771	-4.3266	MDVO8	Cargo, Hazardous category A
STENBERG	49.88731	-5.87027	LAOK8	Tanker, Hazardous category A
STI BATTERSEA	51.91875	2.82165	V7DN2	Tanker, No additional information
STI COMANDANTE	52.1472	3.6363	V7DL6	Tanker, Hazardous category A
STI FULHAM	51.91517	2.63243	V7DM5	Tanker, all ships of this type
STI JARDINS	54.18662	4.7284	V7VG2	Tanker, all ships of this type
STI NOTTING HILL	53.37805	-2.99808	V7EU9	Tanker, all ships of this type
STI PIMLICO	54.73854	-0.90446	V7DL7	Tanker, all ships of this type
STI PONTIAC	49.56549	-4.03259	V7FK4	Tanker, all ships of this type
STI POPLAR	54.79616	-1.15723	V7DO8	Tanker, all ships of this type
STOLT KINGFISHER	51.89254	3.27479	2EQD7	Tanker, Hazardous category B
STOLT SEAGULL	53.29055	4.48147	2ITA2	Tanker, Hazardous category B
STRANDJA	50.47608	-2.9854	9HA2483	Cargo, all ships of this type
SUNRISE RAY	54.73349	-0.84433	D5TH6	Tanker, Hazardous category B
SVEN D	53.15087	4.5403	PBTF	Cargo, Hazardous category A
SWAN PRIDE	49.74627	-3.70746	9V3871	Tanker, all ships of this type
SYDSTRAUM	51.9346	3.72965	LAGH7	Tanker, all ships of this type
SYLVIA	51.37337	4.05628	V2DP2	Cargo, all ships of this type
SYMPHONY PERFORMER	48.79408	-5.47955	PBRD	Cargo, all ships of this type
SYMPHONY SPACE	57.0563	10.05388	PBWA	Cargo, all ships of this type
SYN ZUBE	50.41237	-0.61054	ICKM	Tanker, all ships of this type
TALIS	54.65089	-0.9583	YJXC2	Cargo, all ships of this type
TAMPA TRIUMPH	54.07935	7.76415	3EJB3	Cargo, Hazardous category A
TECTUS	52.45297	4.08571	A8RE3	Tanker, all ships of this type
TEJO BELEM	50.0084	-2.64484	CQMY	Cargo, all ships of this type
TENNA KOSAN	50.39613	0.40816	9HA5469	Tanker, Hazardous category D
TERNFJORD	58.8863	4.9752	OWPW2	Tanker, Reserved for future use
THALASSA	51.3717	4.06673	OT5229	Tanker, all ships of this type



THAMES HIGHWAY	53.64053	5.9458	C6UR4	Cargo, all ships of this type
THEODOR ESSBERGER	53.78747	6.116	CQAD8	Tanker, Hazardous category C
THESEUS	49.98302	-3.38145	V2OU	Cargo, all ships of this type
THRESHER	52.72365	2.10548	PHGW	Tanker, all ships of this type
THUN EOS	58.01323	8.23197	PDLL	Tanker, No additional information
THUN GENIUS	51.79129	-5.15381	PBKM	Tanker, No additional information
THUN GRACE	55.42341	-1.34939	PCGF	Tanker, Hazardous category C
THUN GRANITE	53.47529	-3.428	PBCH	Tanker, No additional information
THUN GRATITUDE	51.69773536	-5.047265373	PBLL	Tanker, No additional information
THUN LIDKOPING	51.64643	-5.20193	PBVZ	Tanker, No additional information
THUN LONDON	51.97976	-5.78165	PBWI	Tanker, all ships of this type
THUN LUNDY	51.78282	-5.16382	PBYW	Tanker, all ships of this type
THUN VENERN	51.43922	1.48203	SGTE	Tanker, all ships of this type
TIAN LU	54.08592	8.16371	VRPA5	Cargo, all ships of this type
TIGER HEBEI	54.70632	-0.84811	VROQ9	Cargo, all ships of this type
TIGRIS	50.62778	-6.00332	V7SB4	Tanker, No additional information
TIM	51.60265	-5.98249	5BLC2	Cargo, No additional information
TITAN	51.70123	4.55731	PD4074	Cargo, all ships of this type
TOPAZ LENA	55.56964	9.86953	UGLM	Cargo, No additional information
TORRENTE	51.91015	3.4823	A8VQ2	Cargo, No additional information
TOTO BR	51.40644	3.35997	ICFJ	Cargo, all ships of this type
TRINITY	49.27022	-2.38062	MHFE8	Cargo, all ships of this type
TRISTAR DANA	50.69087	1.33113	9HA5343	Tanker, all ships of this type
TRITON FPSO	57.08404	0.89357	MZ1L3	Tanker, all ships of this type
TRITON SWAN	52.16926	3.74038	H9ZR	Cargo, all ships of this type
TROMS SIRIUS	59.11383	5.07796	LDGG	Cargo, all ships of this type
TRUFFALDINO	53.45494	-3.40058	J8B5151	Cargo, all ships of this type
TULANE	54.06444	7.43289	9HA2293	Cargo, all ships of this type
TUNADAL	53.99866	7.4884	D5ZQ3	Cargo, Hazardous category A
TWAITE	51.55076	3.98025	LX2489	Tanker, all ships of this type
TWISTER	51.42685	4.02773	PHTW	Tanker, all ships of this type
UAFL EXPRESS	57.68115	10.605	P3VW8	Cargo, all ships of this type
UHL FLAIR	57.85073	10.60776	CQEE4	Cargo, all ships of this type
ULUSOY-12	52.45973	4.10529	TCZU5	Cargo, all ships of this type
UNITED SPIRIT	55.03417	-1.3723	ELYB2	Cargo, all ships of this type
UNITY VENTURE	52.13528	3.6594	VRPW9	Tanker, all ships of this type



USMA	58.48467	10.36783	V7LO2	Tanker, No additional information
VANCOUVERBORG	51.41183	2.64251	PBCF	Cargo, all ships of this type
VANQUISH	54.69354	-1.03925	PHCU	Cargo, all ships of this type
VANTAGE	53.59905	0.41068	PBMC	Cargo, No additional information
VEERSEBORG	51.47396	2.15896	V4BY3	Cargo, all ships of this type
VERITY	53.5984	0.38603	MGDL2	Cargo, all ships of this type
VESTBRIS	56.60873	10.38433	J8B4776	Cargo, all ships of this type
VESTLAND CYGNUS	55.55778	5.13447	C6BW7	Other Type, all ships of this type
VICTORIA	51.41692	4.03401		Cargo, all ships of this type
VICTRESS	58.69635	-3.37721	MGMT3	Cargo, all ships of this type
VIL ATLANTIC	57.68133	10.63238	A8VU4	Cargo, all ships of this type
VINJERAC	56.01529	6.68595	9AA7771	Tanker, all ships of this type
VITA	50.07131	-0.18426	V2TV	Cargo, all ships of this type
VLIEBORG	57.1856	8.50297	PCIX	Cargo, all ships of this type
VLISTBORG	57.42723	8.54352	PDAK	Cargo, Reserved for future use
VOLLSOY	59.0281	5.61685	LLLZ	Passenger, all ships of this type
VOS BASE	52.51305	4.52452	PBNJ	Cargo, No additional information
VOS START	53.98322	1.82758	PBIH	Other Type, no additional information
VS SALMA	51.3685	3.92363	9HA5428	Tanker, all ships of this type
VS SPIRIT	57.69003	10.65538	MGYF2	Tanker, Hazardous category D
W KAMPALA	51.91967	1.69645	V7A4350	Cargo, all ships of this type
WAASMUNSTER	51.5032	-5.281	ONHS	Tanker, all ships of this type
WAIKIKI	56.37564	6.97395	9HA4403	Tanker, all ships of this type
WALKER	54.43873	-0.35478	YJXC3	Cargo, all ships of this type
WEC VAN EYCK	50.48095	0.94145	5BPQ5	Cargo, No additional information
WEC VAN RIJN	49.76898	-2.98569	5BVU5	Cargo, Hazardous category A
WESLIE	53.32044	7.03631	PD6762	Cargo, No additional information
WHITE FIN	51.315	-3.41731	9HA2891	Cargo, all ships of this type
WILD PEONY	54.35608	5.04131	C6DW7	Cargo, all ships of this type
WILHELMINE	51.49737	0.6978	9HA4165	Cargo, Hazardous category A
WILJOPA	51.66027	4.36426	PB3537	Cargo, all ships of this type
WILSON CAEN	52.23447	-6.95015	8PRM	Cargo, No additional information
WILSON CLYDE	50.78345	0.91551	8PRV	Cargo, No additional information
WILSON DAVANGER	50.46424	0.97456	V2GI6	Cargo, all ships of this type
WILSON DROGHEDA	58.48581	-3.09017	V2FB3	Cargo, all ships of this type
WILSON GARSTON	59.13885	4.79481	8PSO	Cargo, No additional information



WILSON HARRIER	50.8086	1.08021	8PAP7	Cargo, all ships of this type
WILSON MONSOON	58.79659	4.30361	8PAR3	Cargo, all ships of this type
WILSON NANTES	53.84093	8.78287	LALW8	Cargo, all ships of this type
WILSON NORTH	49.4719	-0.10938	LANA8	Cargo, all ships of this type
WILSON ONEGA	49.54046	-3.58386	8PAQ8	Cargo, No additional information
WILSON PORI	51.95619	2.37893	LAOC8	Cargo, No additional information
WILSON RHINE	57.93485	7.11727	8PUP	Cargo, No additional information
WILSON SAGA	53.27598	-5.57541	LAII8	Cargo, all ships of this type
WILSON SKAW	51.33414	2.54667	8PAK4	Cargo, all ships of this type
WILSON WISLA	54.55366	5.39631	8PAQ9	Cargo, No additional information
XANTHIA	55.50109	5.65396	LAUR5	Tanker, No additional information
X-PRESS AGILITY	53.41495	-4.04125	5BMB3	Cargo, Hazardous category A
X-PRESS ELBE	53.39004	4.73717	5BZH2	Cargo, Hazardous category A
YACA	51.79223	3.32446	V7A4779	Tanker, all ships of this type
YANNIS P.	52.17597	3.59738	V7A2246	Tanker, all ships of this type
YARA NAUMA	58.05064	8.81689	LAXS7	Tanker, Hazardous category B
YM EVEREST	51.78908	3.34934	9HA3734	Cargo, No additional information
YU XIAO FENG	54.06384	7.80618	BRPL	Cargo, all ships of this type
ZETAGAS	51.9269	3.77857	V2FT8	Tanker, No additional information
ZEUGMAN	51.33675	2.39988	9HA5086	Tanker, all ships of this type
ZEYNEP KA	50.3499	-0.94987	TCTF8	Tanker, No additional information
ZEZE START	50.42029	0.46018	V7A4939	Tanker, all ships of this type
ZHENG JUN	57.66744	10.68717	3FNM2	Cargo, all ships of this type
ZIRCONE	57.69588	10.59332	5BPE5	Tanker, No additional information



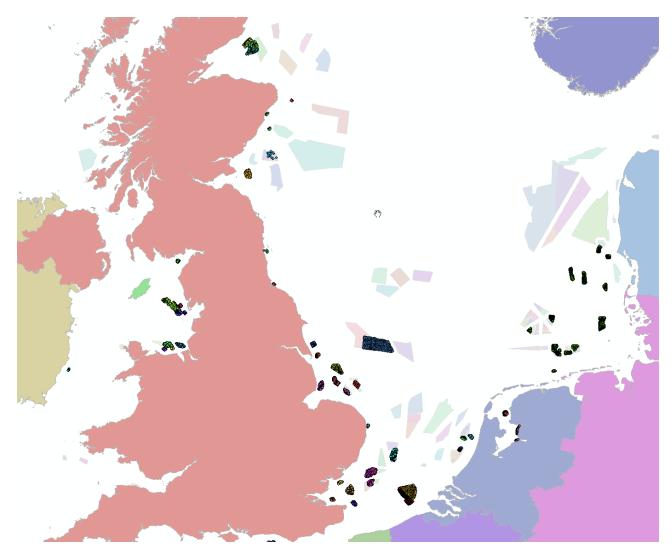
APPENDIX D: BUOYS AND LIGHTSHIPS

Lightships are shown as triangles, buoys as circles.



APPENDIX E: WINDPARKS AND PLANNED WINDPARKS

Here you see all wind turbines placed and the locations where more wind parks will build before 2035.





Details of wind turbine placement between the Netherlands and the UK.

