

Offshore Survey Activities 2018

Attention Fishermen and Other Mariners: Survey Activities for the Empire Wind Offshore Lease, New York Bight - Scheduled March - July 2018

Statoil Wind US are the lease holders of the New York offshore wind energy area OCS-A 0512 known as the 'Empire Wind' project. As part of the site development process, Statoil has commissioned Alpine Surveying Inc. to conduct geophysical & geotechnical surveys over the project area and potential export cable corridors to landfall.

Two (2) survey vessels will be used at separate times; RV Shearwater and RV Ocean Researcher.

- MV Shearwater: LOA 109ft. MMSI 368528000, Call Sign WDF5839; and
- MV Ocean Researcher: LOA 227ft. MMSI 235011460, Call Sign GDLS.

Both vessels will be equipped with hull mounted and towed equipment for geophysical data collection, along with additional equipment to be deployed at specific locations to sample the seabed for geotechnical and benthic sampling. Drop down camera and video equipment will also be used as part of the benthic assessment.

Surveys are planned to start from March 2018 onwards, with an expected duration of 3-5 months, subject to weather and other factors.

The purpose of this newsletter is to alert fishermen and mariners of the upcoming survey activities in addition to the existing and planned outreach activities currently in place to disseminate information and seek feedback, so that surveys can be planned to avoid or minimize conflicting activities. This newsletter also sets out the plans for engagement up to and during the surveys, and procedures in place for interactions.

NEWSLETTER Notice of Surveys

7 February 2018



Indicative Offshore Wind Farm: Dudgeon, UK

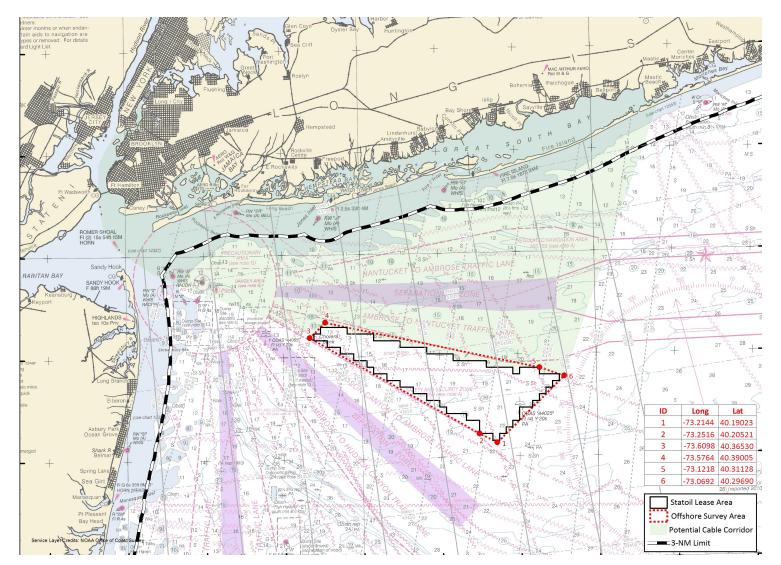
Empire Wind OCS-A 0512

The Empire Wind site extends 14-30 miles south of Long Island, spanning 79,350 acres, in water depths between 65 and 131 feet (see map). Subject to environmental and technical constraints, which will be explored as part of the development phase, it is believed that the site has a potential generating capacity of over 1 GW. The exact details of the wind farm design and installation techniques will be determined during the survey and design phase, and will be influenced by consultation with affected parties, for example the maritime and fishing community.

The offshore wind farm(s) may be developed and constructed in phases, subject to environmental, socio-economic, technical and commercial conditions and uses that are yet to be determined.



Fisheries Liaison



Empire Wind Lease and Planned Offshore Survey Areas

Statoil believes that the fishing industry and offshore wind farm developments can co-exist and, as such, sets out with the objective to co-exist with the fishing industry in and around the Empire Wind development.

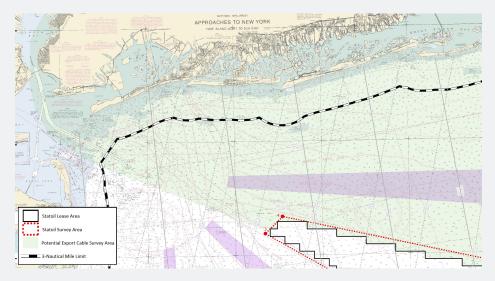
Statoil believes that the fishing industry and offshore wind farm developments can co-exist and, as such, sets out with the objective to co-exist with the fishing industry in and around the Empire Wind development. There are no intentions to restrict or apply for restrictions on fishing activities within the operational wind farms. Restrictions, if applicable, may be limited to the application for standard safety zones during the construction phase, and operational safety zones around manned or sensitive offshore platforms. Co-existence can be achieved through the objective to avoid or reduce impacts where feasible through planning or mitigation. A successful coexistence strategy will require open and regular communication between Statoil and the fishing industry, starting with the development phase leading up to permitting and construction, through construction, operation, and decommissioning of the wind farm. Further details can be found in the Empire Wind Fisheries Liaison and Outline Coexistence Plan, located on the Empire Wind website:

www.empirewind.com

Potential Area for Selecting Export Cable Corridor Survey Routes

Survey Areas

Alternative positioning formats, datums and charts are available on the Empire Wind website, or can be supplied on request.



The indicative offshore lease survey area can be seen on page 2, with the potential area for selecting export cable corridors shown in the chart above (area marked green). The exact details of where and when survey lines will be conducted, and the final export cable routes, is dependent on feedback from the fisheries and maritime community, weather conditions and other constraints.

Statoil appreciates that mariners use different positioning systems, coordinates and charts, and will therefore endeavor to make alternative formats available on the Empire Wind website, or will issue these upon request either directly or via the Fisheries Liaison Officer.





RV Shearwater

The RV Shearwater is a multi-role survey vessel with the ability to operate from the offshore lease area into shallower nearshore waters. Survey operations can be conducted on a 24hr basis and the Shearwater will be configured to deploy, tow and use all survey gear simultaneously. This includes the Multibeam echosounder (MBES), which will be hull mounted, the sidescan sonar (SSS) and Gradiometer systems which will be towed off independent winches, and the Chirp subbottom profiler (SBP) and ultrashort baseline (USBL) systems which will be deployed via a central moon pool.

The Shearwater will also be equipped with benthic sampling equipment and drop-down video.

RV Shearwater: LOA 109ft. MMSI 368528000, Call Sign WDF5839

RV Ocean Researcher

The RV Ocean Researcher is a seismic survey vessel with the ability to operate in challenging offshore environments for long periods. Survey operations will be conducted on a 24hr basis and will cover both the offshore lease and deeper sections of the export cable corridors. The Ocean Researcher will be configured to deploy, tow and use all survey gear simultaneously. This includes the dual head Kongsberg EM2040C MBES, which is hull mounted, the SSS and Gradiometer systems which will be towed off independent winches, and the Pinger shallow penetration SBP. A Multi-Channel ultra-high resolution seismic (UHRS) source and streamer system will be mobilized, configured and utilized.

The Ocean Researcher will also be equipped with benthic and geotechnical sampling equipment and dropdown video.

RV Ocean Researcher: LOA 227ft. MMSI 235011460, Call Sign GDLS

Fisheries Liaison & Outline Coexistence Plan

Statoil has published its draft Fisheries Liaison and Outline Coexistence Plan (FLP) on the Empire Wind website www.empirewind.com. The FLP sets out Statoil's intentions towards coexistence with the fishing community, strategy for engagement and process for gathering information to minimise impacts. This is the first draft of the FLP - as such we encourage feedback on the FLP to ensure it is inclusive and effective. Feedback can be via our Fisheries Liaison Officer, Steve Drew (see article below) or directly to Martin Goff, Environment & Permitting Manager, Empire Wind at mgof@statoil.com.

Steve Drew, Fisheries Liaison Officer



Steve Drew of Sea Risk Solutions is representing Statoil's Empire Wind as Fisheries Liaison Officer. Steve has previously spent five years on commercial fishing boats in RI, CT and MA. He has worked overseas on fisheries development and management, and then in the northeast to run a fisheries observer program on commercial boats from ME to VA. More recently he has served as fisheries liaison for more than 20 submarine cable projects on both coasts of the USA and overseas.

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Survey Information, Communications & Procedures

This newsletter sets out the intended fisheries communications leading up to and during the 2018 offshore survey campaign, in addition to those set out in the FLP. For the upcoming surveys, we will endeavour to:

Indicative Offshore Lease Survey Area (WGS84)					
ID	Latitude	Longitude	Latitude	Longitude	Loran Coordinates
	(dec.deg)	(dec.deg)	(deg.min.sec)	(deg.min.sec)	
1	40.19023	-073.2144	40º 11' 24.83"	-073º 12' 51.77"	26584.04 - 43507.38
2	40.20521	-073.2516	40º 12' 18.76"	-073º 15' 05.72"	26605.31 - 43518.46
3	40.36530	-073.6098	40° 21' 55.08"	-073º 36' 35.42"	26790.20 - 43628.19
4	40.39004	-073.5764	40º 23' 24.18"	-073º 34' 35.17"	26778.55 - 43642.60
5	40.31128	-073.1218	40º 18' 40.61"	-073º 07' 18.35"	26554.98 - 43569.94
6	40.29690	-073.0692	40° 17' 48.84"	-073º 04' 09.19"	26529.05 - 43558.52

Indicative Positions for Offshore Survey Area - see www.empirewind.com for updates

- Prior to and during the survey, incorporate fishermen's knowledge of local fishing gear, areas, practices, timing of fishing, sea conditions and the seabed to mitigate the potential for conflict. We will also use this information post survey to support project layouts to improve coexistence and efficiency for all parties.
- Consult with as many Fishing Industry Representatives (FIR), fishermen and fisheries organizations as possible in advance of survey activities so that all parties understand each other's activities, with the ability and opportunity to plan to avoid complications at sea.
- Following information on fishing areas and seasonal patterns, where feasible plan to survey areas at times or in a manner that avoids fishing activity.
- Publish survey progress and planned activities for the following week, on a weekly basis on the Empire Wind website.
- Provide a dedicated Fisheries Liaison Officer to work with and respond to the fishing community prior to and during the surveys.
- Provide an Offshore Fisheries Liaison Representative onboard the survey vessel to provide experienced knowledge of mobile and static fishing activity to the vessel Captain, and to liaise directly with fishing vessels in the field.
- · Provide maps, charts and positions of survey activity in preferred formats.
- Provide updated Notice to Mariners via email listings and on the Empire Wind website.
- Establish procedures with the survey contractors for accidental interactions with static gears, pots, traps and nets.

Empire Wind www.empirewind.com