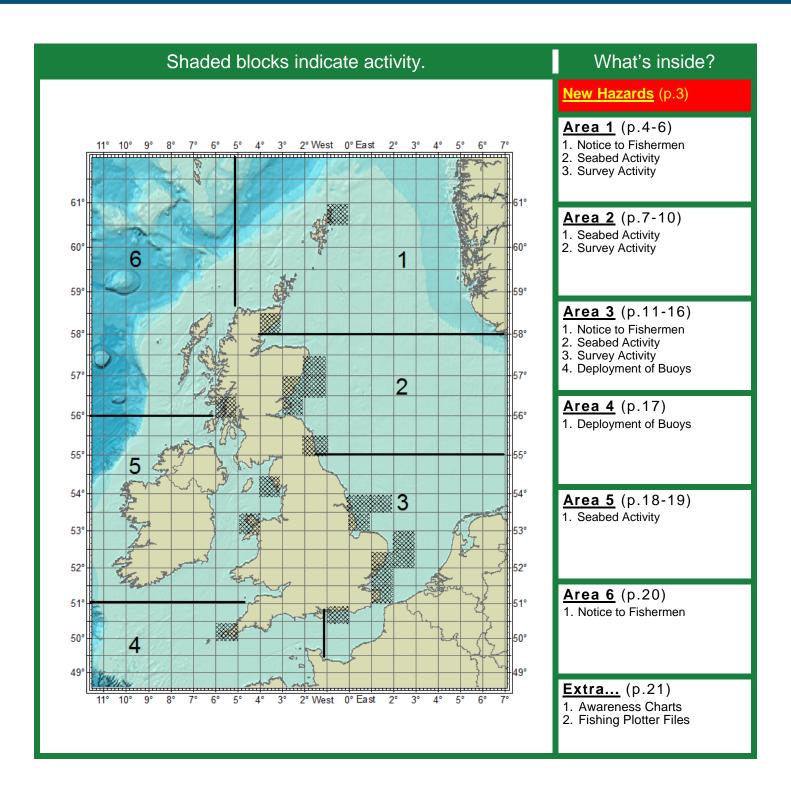
Kingfisher Bulletin Offshore News

RENEWABLE ENERGY

06 SEPTEMBER 2018 | ISSUE 18



Support

The Kingfisher Bulletin is provided by the Kingfisher Information Service of Seafish, to promote the awareness of offshore hazards to fishing, new structures and zones and conflicting offshore operations. Support for the production of renewable industry information is received from The Crown Estate.



Information

Information contained within the Kingfisher Bulletin comes from a variety of sources, although is in the majority, supplied directly to Kingfisher from the offshore operating industry, or government licensing authorities.

Coordinates within the Kingfisher Bulletin are converted into World Geodetic System 1984 (WGS84) and displayed as degrees, minutes and decimal minutes, to three decimal places (ddd°mm.mmm'). Route or boundary coordinates may be simplified for ease of use.

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Area 1	Hazard List				
На	zard Type	Position	Issue Date	Contact Details	Мар
Murchison Wellhea	ad Protection Structure				
7.5m x 7.5m x 7.5ı	m Well 211/19-2	61°23.382'N 01°44.050'E	03 May 2018	Carolyn Toshney <u>Carolyn.Toshney@cnrl.com</u>	7
	ans have been identified Dunbar to Alwyn pipeline	60°38.646'N 01°39.193'E 60°38.713'N 01°39.207'E 60°39.017'N 01°39.267'E 60°39.033'N 01°39.271'E	31 May 2018	David Colliard,email: david.colliard@total.com	y
New suspended w (211/23b-11)	rellhead on seabed	60° 38.713' N 1° 39.207' E	15 May 2018	Fairfield Energy, Tel: +44 (0)1224 320708	y
Removal of protect wellhead 211/19-2		60° 39.017' N 1° 39.267' E	03 May 2018	CNR International Ltd, Tel: +44 1224 303600	7

Area 2 Hazard List

Hazard Type	Position	Issue Date	Contact Details	Мар
Sunken buoy with heavy weight and anchor	57°00.668'N 000°05.671'W	31 May 2018	Raymond Hall,Tel: 01224 646944 email: R.Hall@sff.co.uk	7

Area 3 Hazard List

Hazard Type	Position	Issue Date	Contact Details	Мар
Loss of approximately 35m of steel CPT rods 3.6cm Dia	54°45.505'N 001°44.479'E	06 Sept 2018	Dave Scott. SSE. Tel: +44(0)1738 516993 email: david.scott@sse.com	y
Wreck FV Sonja Z.19 Least Depth 35.15m, Surround Depths 45.5m Laying 45° to Port.	52°48.410'N 002°19.570'E	06 Sept 2018	Duty Officer, UKHO, Tel: +44(0)1823 353448 email: navwarnings @btconnect.com	y
Anchor approx. 3.5m x 1.8m	50°41.147'N 000°17.657'W	28 June 2018	Gordon Bain (Eon Marine Coordination) +44(0)7787241442	y
Significant Pipeline Span on PL21 from Hewett to Bacton (37m long and 1m high)	53°01.482'N 001°43.673'E	15 May 2018	ENI, Tel: 020 7344 6342	y

Area 5 Hazard List

Hazard Type	Position	Issue Date	Contact Details	Мар
Anchor Warrenpoint Channel	54°04.899'N 006°13.472'W	23 Aug 2018	Capt. Catriona Dowling,Tel: +44 (0)28 4177 3381 email: CDowling@warrenpointharbour.co.uk	7

Seabed Activity

First Published: 22 February 2018 | Latest Update: 23 July 2018

Beatrice Offshore Windfarm Ltd - Construction Operations

Beatrice Offshore Windfarm Limited (BOWL) is developing the Beatrice Offshore Wind Farm in the 'Outer' Moray Firth on the north-western point of the Smith Bank, approximately 7 nm off the Caithness coastline.

1

Inter Array Cable Cable Installation

The CLV Seaway Aimery will install 41 inter array cables during the third cable installation campaign. The cables will be laid and buried between the Wind Turbine Generator (WTG) & Offshore Transformer Module (OTM)

Three trenching trial cables have been surface laid and secured by clump weights. These trial cables will be trenched / recovered during the third cable installation campaign during July / August 2018.

Pile Installation completed at 86 locations. Foundation installation completed at 45 locations.

Location ID	Lat WGS84	Long WGS84	Location ID	Lat WGS84	Long WGS84
BE-A5	58° 12.471' N	002° 59.996' W	BE-G4	58° 13.142′ N	002° 53.464' W
BE-B5	58° 12.687' N	002° 58°.873' W	BE-G5	58° 13.762' N	002° 53.254' W
BE-B6	58° 13.308' N	002° 58°.664' W	BE-G6	58° 14.384' N	002° 53.044' W
BE-B7	58° 13.929' N	002° 58°.456' W	BE-G7 (OTM)	58° 15.004' N	002° 52.834' W
BE-C4	58° 12.307' N	002° 57.948' W	BE-G8	58° 15.625' N	002° 52.625' W
BE-C5	58° 12.902' N	002° 57.749' W	BE-G9	58° 16.247' N	002° 52.415' W
BE-C6	58° 13.524' N	002° 57.541' W	BE-G10	58° 16.867' N	002° 52.204' W
BE-C7	58° 14.144' N	002° 57.332' W	BE-G11	58° 17.488' N	002° 51.994' W
BE-C8	58° 14.766' N	002° 57.124' W	BE-G12	58° 18.109' N	002° 51.784' W
BE-C9	58° 15.386' N	002° 56.915' W	BE-G13	58° 18.730' N	002° 51.574' W
BE-D3	58° 11.995' N	002° 57.002°' W	BE-G14	58° 19.351' N	002° 51.362' W
BE-D4	58° 12.497' N	002° 56.834' W	BE-H4	58° 13.356' N	002° 52.339' W
BE-D5	58° 13.117' N	002° 56.626' W	BE-H5	58° 13.977' N	002° 52.130′ W
BE-D6	58° 13.739' N	002° 56.417' W	BE-H6	58° 14.598' N	002° 51.920' W
BE-D7	58° 14.359' N	002° 56.209' W	BE-H7	58° 15.219' N	002° 51.709' W
BE-D8	58° 14.981' N	002° 55.999' W	BE-H8	58° 15.840' N	002° 51.499' W
BE-D9	58° 15.602' N	002° 55.790' W	BE-H9	58° 16.461' N	002° 51.289' W
BE-D10	58° 16.223' N	002° 55.58°2' W	BE-H10	58° 17.082' N	002° 51.079' W
BE-D11	58° 16.844' N	002° 55.373' W	BE-H11	58° 17.703' N	002° 50.867' W
BE-E1	58° 10.900' N	002° 56.256' W	BE-H12	58° 18.324' N	002° 50.657' W
BE-E2	58° 11.470' N	002° 56.128' W	BE-H13	58° 18.944' N	002° 50.446' W
BE-E3	58° 12.090' N	002° 55.920' W	BE-J5	58° 14.192' N	002° 51.005' W
BE-E4	58° 12.712' N	002° 55.710' W	BE-J6	58° 14.812' N	002° 50.795' W
BE-E5	58° 13.333' N	002° 55.502' W	BE-J7	58° 15.433' N	002° 50.58°5' W
BE-E6	58° 13.954' N	002° 55.293' W	BE-J8	58° 16.055' N	002° 50.373' W
BE-E7	58° 14.575' N	002° 55.084' W	BE-J9	58° 16.675' N	002° 50.163' W
BE-E8	58° 15.196' N	002° 54.875' W	BE-J10	58° 17.296' N	002° 49.952' W
BE-E9	58° 15.817' N	002° 54.665' W	BE-J11	58° 17.917' N	002° 49.741' W
BE-E10	58° 16.438' N	002° 54.456' W	BE-J12	58° 18.538' N	002° 49.530' W
BE-E11	58° 17.059' N	002° 54.247' W	BE-J13	58° 19.159' N	002° 49.319' W
BE-E12	58° 17.680' N	002° 54.037' W	BE-K6	58° 15.027' N	002° 49.669' W
BE-F2	58° 11.685' N	002° 55.005' W	BE-K7	58° 15.648' N	002° 49.459' W
BE-F3	58° 12.306' N	002° 54.796' W	BE-K8	58° 16.269' N	002° 49.247' W
BE-F4	58° 12.927' N	002° 54.58°8' W	BE-K9	58° 16.890' N	002° 49.036' W
BE-F5	58° 13.548' N	002° 54.378' W	BE-K10	58° 17.510' N	002° 48.825' W
BE-F6	58° 14.168' N	002° 54.169' W	BE-K11	58° 18.131' N	002° 48.614' W
BE-F8 (OTM)	58° 15.411' N	002° 53.750' W	BE-K12	58° 18.752' N	002° 48.403' W
BE-F9	58° 16.031' N	002° 53.540' W	BE-L7	58° 15.862' N	002° 48.333' W
BE-F10	58° 16.653' N	002° 53.330' W	BE-L8	58° 16.482' N	002° 48.122' W
BE-F11	58° 17.274' N	002° 53.120' W	BE-L9	58° 17.104' N	002° 47.910' W
BE-F12	58° 17.894' N	002° 52.911' W	BE-L10	58° 17.724' N	002° 47.698' W
BE-F13	58° 18.516' N	002° 52.701' W	BE-M9	58° 17.317' N	002° 46.784' W
BE-G3	58° 12.544' N	002° 53.726′ W	BE-M10	58° 17.938' N	002° 46.571' W
			-		

For further information: Beatrice Offshore Windfarm Limited, Tel: +44 (0) 330 202 0329, Mob: +44 (0) 7931 991577



Survey Activity

First Published: 06 September 2018 | Latest Update: 06 September 2018

Moray Wind Farm (West) Ltd - UXO Survey

Please be advised that Moray Offshore Windfarm (West) Limited (Moray West) will have survey vessels working in the Moray West Wind Farm site for approximately two survey days, including weather downtime. The table below provide details of the survey location.



The Kommandor Stuart will commence the UXO survey, involving 24 hour operations on 07 September 2018. Equipment will be towed from the stern at up to 350 metres in length from the stern of the vessel down to a depth of 1.5 metres above the seabed. Other equipment will be hull mounted.

Please see below for Fisheries Liaison Officer (FLO) contact details.

Company, Vessel & Call Sign	Survey Area	Survey Area	Start Timeframe & Duration
Bibby HydroMap Kommandor Stuart MPQH3	58°05.489'N 003°01.080'W 58°05.488'N 003°00.673'W 58°05.273'N 003°00.674'W	58°05.273'N 003°01.081'W 58°05.381'N 003°00.877'W	7 th September 2018 For 2 Days

For further information: John Yorston, Moray Offshore Windfarm (East) Ltd, Tel: +44(0)131 556 7602 email: john.yorston@edpr.com FLO Contact Details: Kommandor Stuart: Simon Fowler, Tel: +447926 849587, email: fowlersimon069@gmail.com

Survey Activity

First Published: 08 March 2018 | Latest Update: 06 September 2018

Moray Wind Farm (East) Ltd – Geophysical and Shallow Geotechnical Site Investigations

Please be advised that Moray Offshore Windfarm (East) Limited (Moray East) will have survey vessels working in the Moray East Wind Farm and export cable route site for approximately 90 survey days, including weather downtime. Up to 2 vessels may be mobilised for the UXO survey. The table below provide details of the survey location.



The Kommandor Stuart commenced the UXO survey, involving 24 hours on 29 May 2018. Up to ten port calls of 1-2 days duration are anticipated. Equipment will be towed from the stern at up to 350 metres in length from the stern of the vessel down to a depth of 1.5 metres above the seabed. Other equipment will be hull mounted. The Kommandor Stuart will be operating offshore from the windfarm site until 10 m LAT.

The Lia vessel commenced the UXO survey, involving 12 hour operations on 04 September 2018. The anticipated survey duration is 10 days, including weather downtime. The vessel is being used for surveys below 26 m LAT. Equipment will be towed from the stern at approximately 100 metres in length from the stern of the vessel down to a depth of 1-4 metres above the seabed. Other equipment will be hull mounted.

Please see below for Fisheries Liaison Officer (FLO) contact details.

Company, Vessel & Call Sign	Survey Area	Survey Area	Start Timeframe & Duration
Bibby HydroMap Kommandor Stuart MPQH3 Lia MERD8	58°19.627'N 002°34.035'W 57°40.627'N 002°31.583'W	57°40.614'N 002°52.625'W 58°19.072'N 002°56.229'W	29 th May 2018 For 111 Days

For further information: John Yorston, Moray Offshore Windfarm (East) Ltd, Tel: +44(0)131 556 7602 email: john.yorston@edpr.com@edpr.com
FLO Contact Details: Kommandor Stuart: Simon Fowler, Tel: +447926 849587, email: fowlersimon069@gmail.com
Lia: George Watson, Tel: +447845 739416, email: Georgewatson573@gmail.com

Survey Activity

First Published: 08 March 2018 | Latest Update: 26 July 2018

Moray Wind Farm (East) - Geophysical & Geotechnical Site Investigations

Please be advised that survey vessels will be working in the Moray East Wind Farm and export cable route site for approximately three and a half months (150 survey days, excluding weather downtime). Up to 4 vessels may be mobilised for this survey.



The Kommandor Stuart commenced UXO surveys, involving 24 hours on 29 May 2018. Up to five port calls of 1-2 days duration are anticipated. Equipment will be towed from the stern at up to 350 metres in length from the stern of the vessel down to a depth of 1.5 metres above the seabed. Other equipment will be hull mounted.

A Fisheries Liaison Officer will be on board each of the vessels; please see below for FLO contact details.

Company, Vessel & Call Sign	Survey Area	Survey Area	Start Timeframe & Duration
Bibby HydroMap Kommandor Stuart MPQH3	58°19.849'N 002°50.458'W 58°19.301'N 002°30.461'W	58°02.409'N 002°34.944'W 58°02.946'N 002°54.796'W	21 st March 2018 For 150 Days

For further information: John Yorston, Moray Offshore Windfarm (East) Ltd, Tel: +44(0)131 556 7602 email: john.yorston@edpr.com FLO Contact Details: Kommandor Stuart: Ian Scott, Tel: +447534 122239, email: janscott2001@hotmail.com

STAY UPTO DATE - ALWAYS ENSURE YOU HAVE THE LATEST KINGFISHER BULLETIN AND OFFSHORE FISHING PLOTTER DATA ON-BOARD.

First Published: 06 September 2018 | Latest Update: 06 September 2018

Dropped Object — Neart na Gaoithe Offshore Wind Farm (Firths of Forth and Tay) — Unexploded Ordnance and Geotechnical Surveys



Please be advised that whilst conducting geotechnical investigations the survey vessel *Omalius* lost a drill string. The dropped object has been marked with an orange buoy at the following position:

56°15.147'N 002°18.574'W

Measures are being taken to survey and then retrieve the dropped object where practicable. Fishing vessels are advised to remain clear of the area defined by the coordinates shown above until further advised.

For further information: Neart na Gaoithe Offshore Wind Limited; Ewan Walker on +44(0) 7850 207515 and at Ewan.Walker@edf-re.uk or Sarah MacNab on +44(0) 7766 900074 and at sarah@consult-poseidon.com

Notice to Fishermen

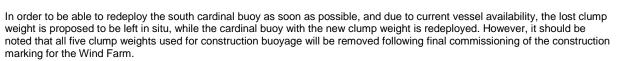
First Published: 22 February 2018 | Latest Update: 22 February 2018

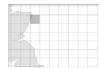
Aberdeen OWF – Lost Clump Weight



Please be advised of the following Lost Clump Weight from South Cardinal Buoy.

Position: 57°12.266'N 02°00.149'W





For further information: Esther Villoria, Vattenfall, Tel: 44 77817018575 email: esthervilloria.domibguez@vattenfall.com

Survey Activity

First Published: 28 June 2018 | Latest Update: 12 July 2018

Inch Cape Offshore Wind Farm (Firths of Forth and Tay) – Geophysical & Geotechnical Site Investigations

Please be advised that survey vessels will be working in the Moray East Wind Farm and export cable route site for approximately three and a half months (105 survey days, excluding weather downtime). Up to 4 vessels will be present at any one time.



Please be advised that Horizon Geosciences will be performing site investigation works on behalf of Inch Cape Offshore Limited. The works are being carried out in the Development Area and Offshore Export Cable Corridor of the proposed Inch Cape Offshore Wind Farm located within the Outer Firth of Tay.

The site investigation works consist of a geophysical survey and geotechnical boreholes. The works will be undertaken using the vessels listed below, up to three vessels will be present on site at any one time. Works will be undertaken over ~110 days, excluding weather downtime.

During the geotechnical works the vessel will hold station on DP and all vessels are also requested to remain 500 m clear. The vessel will be displaying the relevant RAM lights and displays during periods of restricted manoeuvrability.

Company, Vessel & Call Sign	Survey Area	Survey Area	Start Timeframe & Duration
Horizon GeoBay, 3ETG2 Horizon Kommandor Iona, GAAK GEOxyz Geo Ocean II, LXHX Geo Ocean III, LXGP Geosurveyor IV, 2DEW4 Geosurveyor VI, 2GR\$3 Geosurveyor VIII, 2FUH9	56°25.401'N 002°17.290'W 56°35.721'N 002°17.096'W 56°35.624'N 002°02.594'W 56°25.305'N 002°02.854'W	55°58.465'N 003°00.690'W 56°30.479'N 002°15.269'W 56°25.095'N 002°03.133'W 55°53.154'N 002°48.616'W	On or after 16 th July 2017 For up to 110 day (excluding weather down time) End October 2018

For further information: Horizon Geosciences, Tel: +44 (0)117 329 1080, enquiries@horizon-geosciences.com Or Inch Cape Offshore Limited, Tel: +44 (0) 131 557 7101, Email: inchcapewind@redrockpower.co.uk

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Survey Activity

First Published: 12 July 2018 | Latest Update: 06 September 2018

Neart na Gaoithe Offshore Wind Farm (Firths of Forth and Tay) – Unexploded Ordnance and Geotechnical Surveys

Please be advised that survey vessels will be working within the boundaries of the Neart na Gaoithe Offshore Wind Farm Site for approximately 99 days. The survey work will be carried out by G-tec, operating out of the Port of Dundee.



The unexploded ordnance survey was completed on 30 August and the UXO survey vessel has demobilised. The geotechnical survey comprised of cone penetration tests and boreholes is ongoing and will last approximately 90 days. Up to three vessels will be present on site at any one time. The survey vessels will hold on station and display the relevant RAM markings during periods of restricted manoeuvrability.

A Fisheries Liaison Officer will be present offshore at all times; please see below for FLO contact details.

Company, Vessel & Call Sign	Survey Area	Survey Area	Start Timeframe & Duration
UXO Survey: Prince Madog ZNLJ5 Geotechnical Survey: Omalius ORRS Thor DIAV2	56°15.271'N 002°09.898'W 56°12.721'N 002°09.255'W 56°12.752'N 002°13.998'W 56°12.756'N 002°16.293'W 56°15.479'N 002°19.628'W	56°15.827'N 002°20.055'W 56°17.430'N 002°20.232'W 56°19.752'N 002°17.826'W 56°20.312'N 002°16.518'W 56°20.171'N 002°14.910'W	Geotechnical survey (~90 days) Start ~ 12 August 2018; End ~ 9 November 2018.

For further information: Neart na Gaoithe Offshore Wind Limited; Ewan Walker on +44(0) 7850 207515 and at Ewan.Walker@edfre.uk or Sarah MacNab on +44(0) 7766 900074 and at sarah@consult-poseidon.com

Offshore FLO contact: Up to \sim 17 September 2018: Guard vessel Artemis +44 (0) 7949 663790 / +44 (0) 1261 455461 or at concordebf47@aol.com \sim 17 September 2018 onwards: Ian Scott on the Apollo, on +44 (0) 7534 122239 or at ianscott2001@hotmail.com

Survey Activity

First Published: 12 July 2018 | Latest Update: 20 July 2018

Inch Cape Offshore Wind Farm - Met Mast Maintenance

Please be advised that Wood Group, on behalf of Inch Cape Offshore Limited, will be undertaking maintenance works on the Inch Cape Offshore Met Mast, commencing between 24th July. The work is expected to last 1 to 2 days, weather dependent.

weather dependent.

During these works the MTSL Avocet will operate from port to the works location (56° 26.404 N; 2° 14.489 W). The vessel will remain on site during the works and will then return to port.



Company, Vessel & Call Sign	Survey Area	Survey Area	Start Timeframe & Duration
Minerva MTSL Avocet Falcon	56°26.404'N 002°14.489'W		Start between 24th July 1 to 2 days

For further information: Nigel McCoy, Inch Cape Offshore Limited Tel: +44 (0) 131 557 7105 email: nigel.mccoy@RedRockPower.co.uk

Survey Activity

First Published: 12 July 2018 | Latest Update: 12 July 2018

Seagreen Alpha and Bravo Wind Warms - Survey

Mariners are advised that a detailed Geophysical Survey is planned within the boundary of the Seagreen Alpha and Seagreen Bravo offshore wind farms in the Firth of Forth Offshore Wind Round 3 Zone off the east coast of Scotland.

Company, Vessel & Call Sign	Survey Area	Survey Area	Start Timeframe & Duration
Gardline Ocean Vantage	1. 56°40.900'N 001°56 2. 56°30.529'N 001°56		



For further information: Nick Brockie, SSE, Tel: +44 0141 2247152 email@ nick.brockie@sse.com

Survey Activity

First Published: 03 May 2018 | Latest Update: 10 July 2018

Seagreen Alpha and Bravo Wind Warms - Survey

Mariners are advised that a detailed Geophysical Survey is planned within the boundary of the Seagreen Alpha and Seagreen Bravo offshore wind farms in the Firth of Forth Offshore Wind Round 3 Zone off the east coast of Scotland.

Company, Vessel & Survey Area Call Sign		Survey Area	Start Timeframe & Duration
MMT	1. 56°40.900'N 001°56.6361'W	3. 56°31.732'N 001°28.7025'W	Early June 2018
MV Franklin	2. 56°30.529'N 001°56.7745'W	4. 56°40.817'N 001°34.7606'W	For 65 Days



For further information: Martin Godfrey (MMT Project Manager) Tel: +44 1295 817748 email: martin.godfrey@mmt.se

Survey Activity

First Published: 14 June 2018 | Latest Update: 24 July 2018

Kincardine Offshore Wind Farm - Mooring Installation Turbine

Please be advised that installation of the moorings for the first turbine will soon be taking place within the consented Project Site for the Kincardine Offshore Windfarm at location 1

It is anticipated that the installation will take place between 25th July 2018 & 30th July 2018

Four moorings will be installed for Turbine 1, the target mooring locations are as below:

Coordinates		
57°00.420'N 001°52.694'W		
57°00.424'N 001°53.126'W		
57°00.172'N 001°53.152'W		
57°00.168'N 001°52.682'W		

For further information: Dr Richard Wakefield, Tel: +44(0)141 810 9870 email: rwf@niras.com

Deployment of Buoys

First Published: 09 August 2018 | Latest Update: 09 August 2018

Hywind Scotland Wind Park Development – Wave Buoy Servicing

As part of the Hywind Scotland Wind Park development, Equinor subcontracted Partrac Ltd to deploy one wave measurement buoy at the location below from 12th July 2017.

The buoy will remain in place until July 2021, or until an update to this NtM confirms its removal.

-15		
The same		
	Real Control	
	EN/E	

Coordinates	Approx Depth
57°28.445'N 001°23.558'W	101m

The vessel Forth Warrior will be used for servicing operations scheduled from 7th August 2018. The wave buoy is 1.2 m in diameter and bright yellow in colour

It transmits a light sequence as FI Y (5) 20s and is moored using a single point compliant mooring with a scope of up to 100m.

For further information: Kevin Ransom, Partrac Ltd, Tel: 01626 906 673 email: kransom@partrac.com

Deployment of Buoys

First Published: 06 September 2018 | Latest Update: 06 September 2018

Narec Offshore Anemometry Hub - Flidar Deployment

Please be advised that Moray Offshore Windfarm (West) Limited (Moray West) has contracted Partrac Ltd and EOLOS Floating Lidar Solutions S.L. to install a Floating LiDAR Buoy and mooring system (clump weight and mooring chain) at the Narec Offshore Anemometry Hub (NOAH) Consent Area approximately 3 nautical miles from the Blyth coast.



The installation activities are now expected to take place on Wednesday 5th September 2018 and have an anticipated duration of half a day. The vessel undertaking the installation will be the Tees Guardian Call Sign: 2IJH2. The purpose of the Floating LiDAR Buoy deployment is to undertake a data collection and validation campaign. This campaign is expected to have a duration of one month.

Coordinates 55°08.752'N 001°25.374'W

For further information: Davis O'Sullivan, EDP Renewables, Tel: +44(0) 131 5567602 email: david.osullivan@edpr.com

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Deployment of Buoys

First Published: 09 August 2018 | Latest Update: 14 August 2018

Aberdeen Offshore Wind Farm - Removal of Cardinal Buoys

Aberdeen Offshore Wind Farm Ltd. is currently developing the European Offshore Wind Deployment Centre also known as Aberdeen Offshore Wind Farm, which is located approximately 2.4 km offshore in Aberdeen Bay.

The vessel Whalsa Lass Call Sign: 2EZQ4 has been chartered for this scope of work.



Mariners are requested to pass the vessel at a minimum safe distance of 500 metres; any vessel wishing to close this must first make contact with the vessel on channel 16. From 18th August to 30th August 2018

Buoy	Coordinates
North	57°14.763'N 001°58.459'W
East	57°13.799'N 001°57.886'W
South	57°12.266'N 002°00.149'W
West	57°13.625'N 002°01.195'W

For further information: aowf.marinecoordination@vattenfall.com

Deployment of Buoys

First Published: 26 July 2018 | Latest Update: 26 July 2018

Aberdeen Offshore Wind Farm - Metocean Deployment

This notice is to confirm that the Metocean Measurement Campaign, primarily measuring waves and currents, that was being conducted within the construction area of Aberdeen Offshore Wind Farm is now complete and the Wave-Rider Buoy will not now be redeployed.



The Wave-rider Buoy was equipped with an antenna mounted integrated LED flasher, emitting 5 yellow flashes every 20 seconds.

ID	Coordinates	Approx Depth
WVR01	57°13.457'N 001°59.900'W	-25

Vessels: Guard Vessel Isla-B Call sign MNVM2

For further information: aowf.marinecoordination@vattenfall.com

First Published: 06 September 2018 | Latest Update: 06 September 2018

Dropped Object – Dogger Bank Creyke Beck A

Map Link

Please be advised that the loss of approximately 35m of steel CPT rods 3.6cm Dia within the Dogger Bank Creyke Beck A site. The location has been marked with a buoy

54°45.505'N 001°44.479'E



For further information: Dave Scott. SSE. Tel: +44(0)1738 516993 email: david.scott@sse.com

Notice to Fishermen

First Published: 09 August 2018 | Latest Update: 09 August 2018

Fishing Hazard Norfolk Boreas OWF- CPT Rods on/in seabed



Fugro had completed a geophysical, geotechnical and environmental survey in 2017 at the Norfolk Boreas Offshore Wind Farm. During the course of those survey works, CPT rods had been left on/in the seabed at three borehole locations.



Recovery works were recently undertaken in an attempt to recover the rods from two of the locations where the rod was either on or within 1m of the seabed. During those recovery works only a portion of the rod was recovered and there are some rods remaining at the site. While the rods are laying flat on or 1m below the seabed, there is a potential hazard to fishing equipment trawling the seabed at these locations.

CPT rod of different lengths is found at the following coordinates at the site:

Location/Object	Location	Water depth (m)	Rods lost (m)	Comment
	53°00.731'N 002°49.159'E			>1m below seabed
NB-CPT027		38.4	21.36	level
	53°03.298'N 002°48.534'E			>11.0m below
NB-CPT030 CPT		36.2	22.3	seabed level
NB-CPT031a CPT North	53°03.726'N 002°51.058'E			Laying Flat on
End		26.9	28	seabed
NB-CPT031a CPT	53°03.720'N 002°51.056'E			Laying Flat on
South End		26.9	28	seabed

For further information: Joseph Hine, Senior Geophysicist, Vattenfall, Tel: +44(0)776 644 293 email: joseph.hine@vattenfall.com

Notice to Fishermen

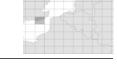
First Published: 28 June 2018 | Latest Update: 28 June 2018

Fishing Hazard - Rampion OWF Anchor



Please note that an anchor approx. 3.5m x 1.8m is lying close to WTG F05 at the Rampion OWF position below:

50°41.147'N 000°17.657'W



For further information: Gordon Bain (Eon Marine Coordination) +44(0)7787241442 email leadmc@rampionoffshore.com

Notice to Fishermen

First Published: 31 May 2018 | Latest Update: 31 May 2018

Hazard to Fishermen – Dropped Buoy Chain on the East Anglia One project

Please be advised that a dropped buoy chain on the EA ONE project. several individual lengths of anchor chain is used to form one anchor weight of around 800kg, all lost.



Anchor chain 1.5 m x 2 m x 1 m, Ballast chain 6 m x 0.42 m x 0.20 m (Cage attached alongside), Cage: 0.4 m x 0.2 m x 0.3 m Riser chain 10 m x 0.1 m x 0.03 m

52°19.333'N 02°32.493'E

For further information: Dominic North Scottish Power, East Anglia One, Tel: +44 1416143847 email: dnorth@scottishpower.com

First Published: 11 January 2018 | Latest Update: 04 September 2018

Hornsea Offshore Wind Farms – Export Cable Open Trenches & Surveys





Open Trenches and Exposed Cables

HOW01 wish to inform mobile gear fishermen that trenching works and cable laying is ongoing within the HOW01 export cable corridor as illustrated in the Map Link (top right). Coordinates of these areas are displayed below. There is exposed cable, as well as cut trenches which pose a snagging risk to fishermen, caution should be exercised. Any static gear anchors, or towed fishing equipment, deployed within these areas presents a significant risk to gear, to vessels, to crews, and to the export cables. The trenches range in depth to circa 2m, further information can be obtained via Nick Garside the Project's Fishing Industry Representative (nick.garside@live.co.uk).



Open Trench areas:

Area 1 Coordinates	Area 2 Coordinates	Area 3 Coordinates
53° 47.390' N 1° 46.068' E	53° 32.198' N 0° 39.308' E	53° 37.992' N 0° 56.502' E
53° 47.967' N 1° 46.047' E	53° 32.138' N 0° 40.572' E	53° 37.412' N 0° 56.733' E
53° 48.003' N 1° 51.668' E	53° 35.519' N 0° 42.350' E	53° 36.918' N 0° 47.612' E
53° 48.538' N 1° 51.557' E	53° 35.243' N 0° 43.419' E	53° 36.428' N 0° 47.971' E
53° 49.428' N 2° 0.180' E	53° 31.898' N 0° 38.210' E	53° 37.445' N 0° 50.134' E
53° 49.947' N 1° 59.989' E	53° 31.307' N 0° 38.658' E	53° 36.907' N 0° 50.205' E
53° 52.410' N 2° 6.283' E	53° 36.464' N 0° 44.833' E	53° 37.302' N 0° 51.825' E
53° 52.756' N 2° 5.756' E	53° 35.862' N 0° 45.295' E	53° 36.768' N 0° 51.958' E

Cable I aid (exposed) areas:

Cable Laid (exposed) areas:			
Area 1 Coordinates	Area 2 Coordinates	Area 3 Coordinates	Area 4 Coordinates
53° 30.342' N 0° 28.405' E	53° 47.172' N 1° 41.782' E	53° 52.088' N 1° 58.953' E	53° 29.875' N 0° 4.813' E
53° 29.729' N 0° 28.842' E	53° 47.591' N 1° 44.126' E	53° 52.359' N 2° 6.081' E	53° 30.209' N 0° 4.076' E
53° 31.970' N 0° 39.014' E	53° 50.284' N 1° 47.307' E	53° 52.442' N 1° 48.786' E	53° 30.924' N 0° 6.670' E
53° 31.798' N 0° 40.098' E	53° 50.054' N 1° 48.132' E	53° 52.620' N 1° 58.794' E	53° 31.441' N 0° 5.676' E
53° 37.493' N 0° 49.920' E	53° 51.156' N 1° 47.925' E	53° 52.625' N 2° 1.257' E	
53° 36.955' N 0° 49.968' E	53° 50.698' N 1° 48.464' E	53° 52.686' N 2° 3.670' E	
53° 42.945' N 1° 15.963' E	53° 51.548' N 1° 50.956' E	53° 52.828' N 2° 6.488' E	
53° 42.338' N 1° 16.120' E	53° 51.061' N 1° 51.350' E	53° 52.833' N 1° 50.921' E	
53° 47.760' N 1° 45.067' E	53° 52.567' N 1° 53.016' E	53° 52.961' N 1° 53.946' E	
53° 47.273' N 1° 45.301' E	53° 52.409' N 1° 53.961' E	53° 52.982' N 1° 48.785' E	
53° 30.342' N 0° 28.405' E	53° 47.172' N 1° 41.782' E	53° 53.030' N 1° 44.518' E	
		53° 53.147' N 2° 1.029' E	
		53° 53.182' N 1° 42.819' E	
		53° 53.236' N 2° 3.693' E	
		53° 53.375' N 1° 50.922' E	
		53° 53.638' N 1° 44.440' E	
		53° 53.670' N 1° 42.618' E	

Expected Cable Lay	y: Cable Buried Area:	Expected O	pened Trenches:

Area 1 Coordinates	Area 1 Coordinates	Area 1 Coordinates	Area 2 Coordinates
53° 30.141' N 0° 30.525' E	53° 28.508' N 0° 20.245' E	53° 30.245' N 0° 32.436' E	53° 35.862' N 0° 45.295' E
53° 30.266' N 0° 31.624' E	53° 29.179' N 0° 20.098' E	53° 30.860' N 0° 31.932' E	53° 36.464' N 0° 44.833' E
53° 30.463' N 0° 30.370' E	53° 29.828' N 0° 4.698' E	53° 31.307' N 0° 38.658' E	53° 36.874' N 0° 51.948' E
53° 30.606' N 0° 31.489' E	53° 30.070' N 0° 30.730' E	53° 31.340' N 0° 38.314' E	53° 37.010' N 0° 49.899' E
	53° 30.119' N 0° 4.027' E	53° 31.827' N 0° 38.035' E	53° 37.261' N 0° 53.764' E
	53° 30.581' N 0° 30.488' E	53° 31.898' N 0° 38.210' E	53° 37.394' N 0° 56.050' E
	53° 30.877' N 0° 6.452' E		53° 37.409' N 0° 51.829' E
	53° 30.910' N 0° 14.214' E		53° 37.548' N 0° 49.838' E
	53° 31.501' N 0° 14.720' E		53° 37.789' N 0° 53.570' E
	53° 31.521' N 0° 6.032' E		53° 38.020' N 0° 55.915' E
	53° 31.544' N 0° 12.158' E		
	53° 32.168' N 0° 12.227' E		

https://twitter.com/Kingfisherinfo/status/997059331530088449

For further information: Nick Garside, Tel: +44(0)7538 827013 email: nick.garside @live.co.uk

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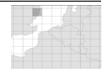
First Published: 14 November 2017 | Latest Update: 14 November 2017

Fishing Hazard — Cable Spans Along Greater Gabbard WF Export Cable

Map Link

Recent results from the export cable surveys at Greater Gabbard show that there are 8 free-spans

Whilst the results continue to be processed, Balfour Beatty have asked that in the interest of safety and the integrity of the cable, extreme caution be used when Fishing near the export cables and that Fishermen refrain from using towed gear across the export cables wherever possible.



Cable	Position (from)	Position (to)	Span Length(m)	Span height(cm)
L1	52°12.284N 001°39.364E	52°12.283N 001°39.369E	6	0
L1	52°12.271N 001°39.434E	52°12.270N 001°39.441E	8	13
L1	52°12.064N 001°40.559E	52°12.061N 001°40.565E	8	20
L2	52°12.128N 001°40.524E	52°12.124N 001°40.535E	15	5
L2	52°12.119N 001°40.560E	52°12.118N 001°40.567E	8	76
L3	52°12.169N 001°40.502E	52°12.169N 001°40.504E	3	11
L3	52°12.148N 001°40.594E	52°12.146N 001°40.604E	13	34
L3	51°59.194N 001°57.431E	51°59.187N 001°57.442E	17	10

For further information: Merlin Jackson email: merlinjackson@btinternet.com Tel: 07989520484

Seabed Activity

First Published: 06 September 2018 | Latest Update: 06 September 2018

Hornsea Offshore Wind Farm – Intertidal & Nearshore Export Cable Works

Mariners are advised that Hornsea Project One will be continuing the intertidal and nearshore export cable works along the offshore export cable corridor. Hornsea Project One Offshore Wind Farm is located within the UK Sector of the North Sea off the coast of East Yorkshire.



The intertidal and nearshore Export cable works will re-commence on or about the 1 September 2018

Target ID	Coordinates
1	53°29.946'N 00°04.431'E
2	53°30.081'N 00°05.365'E
3	53°31.190'N 00°05.747'E
4	53°31.006'N 00°06.070'E

Wet Storage Anchor locations

Target ID	Coordinates
1	53°31.857'N 00°12.443'E
2	53°29.020'N 00°19.671'E

Please be advised that VBMS will be carrying out cable installation operations with the Ndurance and Coastal Challenger, and a barge, JB 108, will support operations alongside other workboats/ anchor handling tugs.

The vessels will be installing cables, deploying anchors or assisting in these activities and this will restrict their ability to manoeuvre. It will be requested that all vessels operating within the area keep a safe distance (500m) and pass at minimum speed to reduce vessel wash.

For further information: Zoe Auckland, Orsted, Tel: +44 7775 720 039 email: ZOAUC@orsted.co.uk

Seabed Activity

First Published: 03 May 2018 | Latest Update: 03 May 2018

Gunfleet Sands Offshore Wind Farm – Array Cable Burial

Recent surveys at Gunfleet Sands offshore wind farm have illustrated that some array/in-field cables are lying exposed on the seabed and are no longer buried and there is one freespan.



·

Location	Start of Exposure	End of Exposure
Cable between turbines C06-D06	51°44.590'N 01°14.923'E	51°44.383'N 01°15.101'E
Cable between turbines F09-F08	51°44.736'N 01°17.428'E	51°44.481'N 01°16.772'E
Cable between turbines F08-F07	51°44.481'N 01°16.772'E	51°44.225'N 01°16.115'E
Cable between turbines F07-F06	51°44.225'N 01°16.115'E	51°43.969'N 01°15.459'E
Cable between turbines C08-C07	51°44 274'N 01°16 050'E	51°44 018'N 01°16 204'E

These are the following cables located in the eastern part of Gunfleet Sands 1 and the north eastern part of Gunfleet Sands 2

Mariners are advised to be aware of these areas which may represent a hazard to fishing.

For further information: Merlin Jackson, Tel: 07989520484 email: merlinjackson@btinternet.com or Anthony Mayhew / Steve Breeden, Dong Tel: +44(0)1206 307915 email: gfscoordinators@dongenergy.co.uk

Seabed Activity

First Published: 06 September 2018 | Latest Update: 06 September 2018

Rampion Wind Farm – Installation of New Export Cable

Map Link

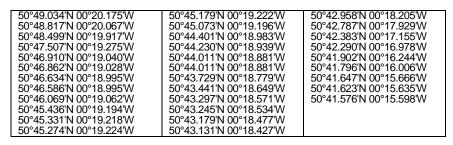
The Atalanti and associated Vessels started with preparatory operations for the cable installation on the 20/08/18 weather permitting and will last approximately 4 weeks.

Installation of the new export will commence from around the 25/08/18 weather permitting and will last approximately 4 weeks.

The vessel Artemis Call Sign: 5BVJ3, will assist the Atalanti Call Sign: 5BYY2 during installation of the cable.

Please be advised that the vessel MPSV Astrea Call Sign: SYBE will be conducting Trenching burial of the cable once laid by the cable lay vessel CLB Atlanti. The trenching of the cable is due to take 6 weeks and will be operating from KP2.0 to the offshore substation. The C59 (jack-up barge) and Capall Mara will be assisting inshore export cable landing operations.

Once pull-In operations are completed the Capall Mara Call Sign: MBSF3 will backfill the trench from KP0.35 to KP 2.0. This operation should take approx. 5 days weather permitting



Nearshore Cable Burial Works

Nearshore cable burial works will be conducted at the shallow landing site of the ROW cable routes between 06/09/2018 for a minimum period of approximately 10 days (unless further works are required during subsequent spring tides). Operations will be conducted from the approximate Low Water Mark for 700m (to KP1 of the cable route). Works will be conducted predominantly during daylight hours and during the peak of high and low waters

Vessels: Roxane Z Call Sign: FIRJ Calmar Call Sign: 2JPH5

The works will involve the deployment of up to 12 anchors, localised to the cable corridor for the duration of the works. All dive operations aboard "Calmar" will be using this anchor array. All works with the workboat "Roxane Z" are expected to be in DP mode.

KP	Coordinates	
0.000	50°49.029'N 00°20.145'W	
0.278	50°48.892'N 00°20.049'W	
1.211	50°48.431'N 00°19.730'W	

Mariners are advised to give the vessel a wide berth as the vessels will be restricted in manoeuvrability whilst carrying out operations. All vessels are requested to remain a minimum safe distance of 500m from the vessel during operations and whilst they are on location. Vessels will be monitoring channel 16 VHF and the project P1 channel.

For further information: Gordon Bain (Eon Marine Coordination) +44(0)7787241442 email leadmc@rampionoffshore.com



Seabed Activity

First Published: 12 July 2018 | Latest Update: 26 July 2018

East Anglia One Wind Farm - HDD Works

East Anglia ONE Offshore Windfarm will commence HDD works in the vicinity of Bawdsey beach.

This is in relation to the ongoing works currently taking place in the HDD works area in the vicinity of Bawdsey Beach. To assist in the works the 10 mentioned anchors noted in the table below will be 1.2T pool anchors with moorings of 25mm x 75m chain, marked by a yellow Norwegian rigged unlit marker buoy. The HDD works area has a guard vessel operating at the construction site. Guard vessel 'Megan M' or guard vessel 'Coastworker' can be contacted via VHF16.



Point	Coordinates
1	51°59.624'N 001°25.910'E
2	51°59.578'N 001°25.996'E
3	51°59.533'N 001°26.082'E
4	51°59.487'N 001°26.168'E
5	51°59.441'N 001°26.254'E
6	51°59.706'N 001°26.023'E
7	51°59.660'N 001°26.109'E
8	51°59.615'N 001°26.196'E
9	51°59.569'N 001°26.282'E
10	51°59.523'N 001°26.368'E

The Dredger M/S Grete Fighter Call Sign: OZLP2 will commence works within the coordinates below between 1st August 2018 and 21st August 2018. The vessel will be working 24hrs a day

Point	Coordinates
001	51°59.966'N 001°25.659'E
002	51°59.256'N 001°26.975'E
003	51°59.117'N 001°26.777'E
004	51°59.826'N 001°25.462'E

The area is approximately 1.3 nautical miles to the east north east of the entrance of the River Deben.

For further information: Graham Farrant, Tel: 0141614290 or 7834 603291 email: gfarrant@scottishpower.com

Seabed Activity

First Published: 04 April 2018 | Latest Update: 21 August 2018

East Anglia One Wind Farm - Construction and UXO Disposal

Please be advised that construction activities and UXO disposal are continuing at the East Anglia One Wind Farm.

Construction

- The Glomar Drifa will continue Guard vessel duties
- Heavy Lift vessel Bokalift 1 will continue pile and jacket installation on East Anglia One Wind Farm.
- Olympic Taurus will continue pile cleaning on various locations.
- MTS Terramare to continue UXO diving investigations on various locations on the export cable route.
- Tender 2 will support the MTS Terramare with near shore operations.
- Olympic Artemis to continue with UXO investigation.
- GPS Battler to continue supporting the MTS Terramare with anchor handling operations.
- The Patriot will continue on the project to conduct passive acoustic monitoring during UXO EOD
 operations.
- Greta Fighter will mobilise to join the project.

Please be advised that confirmed unexploded ordnance has been identified at the following as found coordinates:

riease be advised that committee direxploded ordinance has been identified at the following as found coordinates.				
Location	Location	Location	Location	
52°18.381'N 002°30.384'E	52°11.547'N 002°12.908'E	52°18.770'N 002°33.920'E	52°15.887'N 002°31.882'E	
52°18.308'N 002°30.456'E	52°18.352'N 002°30.331'E	51°59.788'N 001°25.955'E	52°17.031'N 002°30.999'E	
52°18.239'N 002°30.460'E	52°15.688'N 002°28.028'E	52°11.100'N 002°28.618'E	52°17.472'N 002°30.824'E	
52°16.547'N 002°33.295'E	52°15.667'N 002°31.968'E	51°59.647'N 001°26.064'E	52°11.572'N 002°28.315'E	
52°18.788'N 002°33.930'E	52°17.442'N 002°30.806'E	51°59.449'N 001°26.219'E	52°13.243'N 002°27.347'E	
52°03.700'N 001°38.848'E	51°59.545'N 001°30.163'E	52°11.367'N 002°12.567'E	52°16.523'N 002°33.431'E	
52°03.800'N 001°39.233'E	52°03.072'N 001°36.326'E	52°11.798'N 002°26.246'E	52°02.435'N 001°35.322'E	
52°03.072'N 001°36.326'E	52°13.046'N 002°27.512'E	52°11.356'N 002°09.539'E	52°01.772'N 001°34.237'E	
52°11.255'N 002°28.446'E	52°11.953'N 002°20.511'E	52°13.046'N 002°27.502'E	52°00.739'N 001°32.701'E	
52°10.927'N 002°06.960'E	52°16.767'N 002°27.440'E	52°03.906'N 001°39.456'E	52°13.111'N 002°27.512'E	
52°03.486'N 001°37.402'E	52°12.563'N 002°27.176'E	52°09.621'N 002°27.445'E	52°03.748'N 001°39.892'E	
52°00.783'N 001°35.744'E	52°11.231'N 002°12.906'E	52°11.537'N 002°12.911'E	52°11.338'N 002°10.735'E	
51°59.773'N 001°26.651'E	52°11.437'N 002°28.288'E	52°16.421'N 002°27.587'E	52°02.751'N 001°35.663'E	
52°11.540'N 002°12.916'E	52°04.317'N 001°39.752'E	52°03.944'N 001°38.212'E	52°04.028'N 001°38.361'E	

52°00.737'N 001°32.688'E 52°12.070'N 002°31.675'E 52°04.332'N 001°39.751'E 52°14.578'N 002°29.930'E

For further information: Graham Farrant, Tel: 0141614290 or 7834 603291 email: gfarrant@scottishpower.com

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Deployment of Buoys

First Published: 23 August 2018 | Latest Update: 06 September 2018

Rampion Offshore Wind Farm - Deployment of Wave Buoy

The Vessel MV Erica will be conducting the above operations from the 12th to 15th /09/2018

The buoys are fitted with an amber flashing light, flashing 5 times at 0.5 Hz every 20 seconds

ID	Coordinates
Wave Rider 1 KP5	50°46.546'N 00°18.862'W
Wave Rider 2 EOS	50°41.396'N 00°16.147'W
Wave Rider 3 Array	50°40.061'N 00°12.194'W

The wave rider highlighted above in yellow will be removed from service. Wave rider 1 & 2 will be removed serviced and then be installed back in the same position. Mariners are advised to give the vessel a wide berth as the vessels will be restricted in manoeuvrability whilst carrying out operations.

All vessels are requested to remain a minimum safe distance of 500m from the vessel during operations and whilst they are on location. Vessels will be monitoring channel 16 VHF and the project P1 channel

For further information: Gordon Bain (Eon Marine Coordination) +44(0)7787241442 email <u>leadmc@rampionoffshore.com</u>

Deployment of Buoys

First Published: 23 August 2018 | Latest Update: 06 September 2018

Norfolk Boreas Offshore Wind Farm – Deployment of Wave Buoy

All Mariners are to be advised that a Metocean Measurement Campaign, primarily measuring waves and currents, is being conducted in the vicinity of the EA ZE Met Mast in the north-east of the Norfolk Boreas Offshore Wind Farm development zone.



One surface Directional Waverider Buoy, two CEFAS Toroidal Guard Buoys and one seabed frame-mounted AWAC were deployed on 11th May 2018 and will remain in position for one year.

Work will be conducted from onboard CEFAS Endeavour - Call Sign: VQHF3.

Equipment	Deployment	Recovery	Locations
Wave Buoy	11" May 2018	31 st May 2019	53°10.644'N 02°59.369'E
Guard Buoy 1	11 th May 2018	31 st May 2019	53°10.753'N 02°59.370'E
AWAC	11 th May 2018	31 st May 2019	53°10.617'N 02°58.714'E
Guard Buoy 2	11 th May 2018	31 st May 2019	53°10.752'N 02°58.828'E

For further information: Jaqueline Read, Cefas, Tel: +44(0)7903952360 email: <u>Jacqueline.read@cefas.co.uk</u>





Deployment of Buoys

First Published: 31 May 2018 | Latest Update: 15 June 2018

North Coast of Cornwall - Wave Hub Subsea Cable Safety Notice

Mariners are reminded to exercise caution when navigating in the vicinity and are advised not to anchor or fish within the Wave Hub offshore site (as defined by the four special marks and charted as 'Renewable Energy Development Area') or in proximity to the main export cable.



Please be advised that the subsea cable system safety notification remains in force and the system is live at 11,000V. The majority of Wave Hub subsea cables are surface laid with varying levels of protection and alongside a dynamic seabed present a potential snag risk to anchors or fishing gear.

The following safety information and attachments should be carefully digested by any mariner operating in the vicinity of the Wave Hub offshore site or export cable route:

- 1. Overall, the 2017 cable survey shows that approximately 18% of the export cable remains exposed. Key characteristics are as follows (KP chart and RPL attached):
- characteristics are as follows (KP chart and RPL attached):
 a. From the shore to KP1.9 the subsea power cable remains buried to the design depth of 1.5m from top of product
- b. Due to varying sediment depths alongside shallow burial or a partial rock berm, From KP 1.9 to KP 8.1 the subsea power cable is in many areas exposed or carries a high risk of exposure
- c. From KP 8.1 to the Wave Hub itself (KP 25) the subsea power cable is generally covered by a rock berm with 0.3m depth of cover. However, the 2017 survey has recorded a number of longstanding cable exposures and free-spans through this zone so the berm should not be considered as continuous protection.
- 2. Four cable tails extend across the charted offshore Renewable Energy Development Area to provide Developers with a proximate point of connection (KP chart and RPLs attached). These cables are stabilised against current and wave action through rock bags positioned at regular intervals but are otherwise exposed and unprotected to facilitate ease of handling. Many free-spans were removed in 2016 during construction by use of further rock bags but further free-spans due to the seabed mobility have been recorded during the 2017 cable survey.

Boundary Point	Position
SW	50°20.707'N 05°37.211'W
NW	50°22.812'N 05°37.734'W
NE	50°22.977'N 05°36.110'W
SE	50°20.873'N 05°35.587'W

Wave Hub AtoN Name	Details	Assigned Position	Current Status
Wave Hub NW N18100	North Cardinal – 3m Diameter Buoy Light: VQ	50°23.060'N 05°38.240'W	ОК
Wave Hub SE N18107	VQ(6) +L FI 10s Pillar YB Cardinal S	50°20.640'N 05°35.010'W	ОК
Wave Hub Site – NW N18101	South Cardinal – 3m Diameter Buoy FI Y 5s (sync) Pillar Y Cross Y X	50°22.791'N 05°37.943'W	ОК
Wave Hub Site – NE N18102	FI Y 5s (sync) Pillar Y Cross Y X	50°22.999'N 05°35.901'W	OK
Wave Hub Site – SE N18106	FI Y 5s (sync) Pillar Y Cross Y X	50°20.894'N 05°35.378'W	ОК
Wave Hub Site – SW N18105	FI Y 5s (sync) Pillar Y Cross Y X	50°20.541'N 05°37.196'W	OK

Wave Buoy: 50°20.834'N 05°36.850'W

Subsea Infrastructure	Position
Wave Hub (Centre of 500m Safety Zone)	50°20.825'N 05°37.136'W
End of Cable Tail Bundle	50°20.904'N 05°37.095'W
Cable Tail 1 Dry Mate Connector	50°20.955'N 05°36.762'W
Cable Tail 2 Dry Mate Connector	50°21.318'N 05°37.202'W
Cable Tail 3 Dry Mate Connector	50°21.939'N 05°37.277'W
Cable Tail 4 Dry Mate Connector	50°22.418'N 05°37.356'W

For further information: Julius Besterman, Wave Hub Limited, Tel:01736 800291 email: Julius.besterman@wavehub.co.uk

Seabed Activity

First Published: 06 September 2018 | Latest Update: 06 September 2018

Robin Rigg Offshore Wind Farm - Shallow Buried Cable

Mariners are advised that the most recent survey of the east and west export cables of the Robin Rigg OWF have indicated several areas of shallow buried cables, calculated to be buried to less than 0.2 m below seafloor.

₽	Longitude	Latitude
1	54°41.242'N	003°32.977'W
2	54°41.320'N	003°33.165'W
3	54°41.631'N	003°33.874'W
4	54°42.272'N	003°35.423'W
5-1	54°43.814'N	003°39.099'W
5-2	54°43.764'N	003°39.164'W
5-3	54°44.029'N	003°39.804'W
5-4	54°44.083'N	003°39.746'W
6-1	54°44.775'N	003°41.366'W
6-2	54°44.704'N	003°41.449'W
6-3	54°44.766'N	003°41.611'W
6-4	54°44.841'N	003°41.518'W



Fishermen are requested and advised to avoid trawling or setting any pots along the Export Cable Route at the positions marked as being shallow buried.

For further information: Tom Watson: Tel: 01253 875565, Mob: 07903 173 624

Seabed Activity

First Published: 02 May 2018 | Latest Update: 12 July 2018

Deep Green Tidal Energy – Installation

Holyhead Deep is the starting point for developing Minesto's unique "Deep Green" marine technology at a commercial scale. It will be the first low-velocity tidal energy project in the world.

The development of tidal energy production at Holyhead Deep is due to be done in phases. The first step will be the installation of one 0.5MW "Deep Green" demonstrator during 2018. Following deployment and testing, the ambition is to install further Deep Green devices to a commercial demonstration array of up to 10MW installed capacity. Further information about Minesto, the "Deep Green" technology and Holyhead Deep can be found on the Minesto website: https://minesto.com/.



Installation complete

All sub surface components for the Deep Green project have been successfully installed on site, and an offshore support buoy has been installed. The location of these components is listed here:-

- MGS Offshore Support Buoy: 53° 17.7957' N 004° 47.7582'W
- Gravity Base Structure: 53° 17.8309'N 004° 47.9558'W

The MSG Offshore Support Buoy is now showing a <u>YELLOW FLASHING LIGHT FI.(4) 15s</u>. The Local Notice to Mariners for the project has been updated to show this, and can be downloaded <u>here.</u>

All other project details remain unchanged: commissioning works are still being carried out by the vessels listed below:-

- Voe Vanguard: Tug | Call sign MBEN9
- <u>Lynas Shuttle</u>: Port Tender / Crew Transfer Vessel | Call sign GCHK

The Voe Vanguard will be restricted in its ability to manoeuvre during these operations, and will display appropriate day marks and lights.

A safety zone of 500m on the sea surface is established on the MGS Offshore Support Buoy. All vessels are asked to give a wide berth to the MGS Buoy and any vessels working on site.

Vessels are strongly advised not to approach the MGS Buoy. Access to the MGS Buoy is strictly prohibited. CCTV is in operation to monitor the buoy

For further information: Jim Andrews, Fishery Liaison Officer, Tel: +44(0)7908-225865

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STAY UPTO DATE - ALWAYS ENSURE YOU HAVE THE LATEST KINGFISHER BULLETIN AND OFFSHORE FISHING PLOTTER DATA ON-BOARD.

SEAFISH | The Kingfisher Information Service



Deployment of Buoys

First Published: 09 August 2018 | Latest Update: 09 August 2018

West of Duddon Sands Offshore Wind Farm - Floating Lidar Buoy

Orsted will shortly be deploying one FLOATING LIDAR BUOY just outside of the NW corner of the WEST of DUDDON SANDS WIND FARM, opposite the Met Mast and Turbine A01.

The Buoy was scheduled to be deployed today but is now expected to be sited on or around Monday 13th.



Coc	ordinates
54°00.117'N	003°33.720'W

The Seabed mooring system will consist of an anchor of concrete weight of 3-5 tonnes fitted with a lifting eye for the chain. The length of the chain is approx. three times the water depth and the chain quality is in accordance to DIN 5683-II. Some of the chain will lie on the seabed, the proportion of chain on the seabed will be dependent on drift and tide.

For further information: Tom Watson: Tel: 01253 875565, Mob: 07903 173 624

Seabed Activity

First Published: 26 July 2018 | Latest Update: 26 July 2018

Walney Extension Wind Farm - Rock Replacement



The Walney Extension project has undertaken remedial rock placement at various locations along the export cable routes outside of existing subsea infrastructure crossing locations.



Point ID	Start Lat	Start Long	l End Lat	End Long	Ī
RP 1	53° 56.912' N	3° 04.447' W	53° 56.982' N	3° 04.193' W	306 meters
RP 2	54° 05.362' N	3° 49.619' W	54° 05.303' N	3° 49.585' W	116 meters
RP 3	54° 05.797' N	3° 50.165′ W	54° 05.805' N	3° 50.217' W	58 meters
RP 4	54° 05.683' N	3° 50.907' W	54° 05.671' N	3° 50.934' W	440 meters
RP 5	53° 58.328' N	3° 01.341' W	53° 58.304' N	3° 01.407' W	80 meters
RP 6	53° 56.975' N	3° 04.343' W	53° 56.960' N	3° 04.387' W	55 meters
	54° 05.894' N	3° 50.415' W	54° 05.863' N	3° 50.612' W	
RP 7	54° 05.863' N	3° 50.612' W	54° 05.701' N	3° 50.934' W	1015 meters
	54° 05.701' N	3° 50.934' W	54° 05.666' N	3° 51.218' W	
RP 8	53° 55.075' N	3° 22.131′ W	53° 55.078' N	3° 22.301' W	750 meters
RP 9	53° 55.215' N	3° 10.468' W	53° 55.126' N	3° 10.667' W	500 meters

These location coordinates are listed below and give the start and end position of each rock placement as well as the length in meters. Please mark these locations on your charts/plotter and keep clear.

The above locations of rock placements along the WOWO3+4 Export Cables are shown on the attached chartlet as being shaded red.

The coordinates of the Crossing Locations over existing subsea infrastructure are listed below and these locations are protected with industry standard rock placement techniques.

Please mark these positions on your chart/plotter and keep clear

Latitude	Longitude	Latitude	Longitude
54° 03.950' N	3° 47.221' W	53° 59.064' N	3° 36.740' W
54° 03.904' N	3° 46.955' W	53° 59.039' N	3° 36.736' W
54° 00.679' N	3° 40.347' W	53° 59.096' N	3° 36.637' W
54° 00.683' N	3° 40.318' W	53° 59.088' N	3° 36.636' W
54° 00.885' N	3° 40.349' W	53° 59.064' N	3° 36.631' W
54° 00.889' N	3° 40.322' W	53° 55.562' N	3° 26.553' W
53° 54.527' N	3° 11.832' W	53° 55.738' N	3° 26.290' W
53° 54.564' N	3° 11.931' W	53° 55.355' N	3° 24.345' W
53° 59.072' N	3° 36.742' W	53° 55.495' N	3° 24.206' W

This information has been posted to all of the fishermen who I have addresses for and it is expected that information covering the material presented in this NtM will also be made available via Kingfisher/KIS-ORCA".

Please note that the chartlet is provided for information purposes only and should not be used for navigation.

For further information: Tom Watson: Tel: 01253 875565, Mob: 07903 173 624

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First Published: 12 July 2018 | Latest Update: 12 July 2018

Fishing Hazard – Plat-I Connel Removal Operations



Please be advised that the PLAT-I platform was successfully removed from site on June 7th. The mooring system was removed on June 8th.

It is intended to leave 4 * rock anchors in-situ in the event that we wish to conduct further testing at the site in the near term. Please be advised that a Marine License application has been submitted to Marine Scotland to enable the anchors to remain in place until October 2020 – in line with the Lease Option previously awarded to Sustainable Marine Energy Ltd by the Scotlish Crown Estate.



In terms of a description of the anchors:

- They are of steel construction
- 1.4t each
- The 'head' of each of the anchors protrudes between 50cm 70cm from the seabed.

Coordinates
56°27.303'N 005°23.999'W
56°27.275'N 005°23.982'W
56°27.321'N 005°23.893'W
56°27.301'N 005°23.865'W

For further information: John McGlynn, Sustainable Marine Energy Ltd, Tel: +44 0131 285 4620 email: john.mcglynn@sustainablemarine.com

Local Awareness Charts

Chart	Area	Location	Turbines	Developer	Completed	Link
Barrow	5	7km dudgeon Island	30	Orsted	1 Jul 2006	<u>Download</u>
Blyth	2	1km N.E Coast	2	E.ON	-	Download
Burbo Bank	5	5.2km Crosby	25	Orsted	27 Oct 2007	<u>Download</u>
Dudgeon	3	38km Outer Wash	67	Statkraft / Statoil	-	<u>Download</u>
Greater Gabbard	3	26km off Orford, Sufflk	140	SSE & RWE Npower / Innogy	7 Sept 2012	Download
Gwynt y Mor	5	13km off N Wales Cst	160	RWE Innogy / SWM	18 Jun 2015	<u>Download</u>
Gunfleet Sands 1, 2 & 3	3	8.5km off Clacton-On-S	50	Orsted	19 April 2010	Download
Humber Gateway	3	8km off Holderness Cst	73	E.ON UK	5 Jun 2015	Download
Hywind	2	25km off Peterhead	5	Statoil	-	Download
Inner Dowsing	3	5km off Skegness	27	Siemens	30 Mar 2009	Download
Kentish Flats	3	9km off Whitstable	30	Vattenfall	1 Oct 2015	Download
Lincs	3	8km off Skegness	75	Centrica	10 Oct 2013	Download
London Array	3	24km off Clacton-on-S	175	Orsted	1 May 2013	Download
Lynn	3	5km off Skegness	27	Siemens	30 Mar 2009	Download
North Hoyle	5	7.5km off Prestatyn	30	RWE Innogy UK	1 Dec 2003	Download
Race Bank	3	27km Lincolnshire	91	Orsted	-	Download
Ormonde	5	off Walney Island	30	Vattenfall	22 Feb 2012	Download
Rampion	3	Off Sussex Coast	116	E.ON UK Renewables	-	Download
Rhyl Flats	5	8km Abergele	25	RWE Innogy UK	2 Dec 2009	Download
Robin Rigg	5	9.5km Maryport	60	E.ON UK Renewables	16 Apr 2010	Download
Scroby Sands	3	3km NE Great Yarmth	30	E.ON UK Renewables	1 Mar 2004	Download
Sheringham Shoal	3	Sheringham, Grtr Wash	88	Statkraft / Statoil	27 Sep 2007	Download
Teesside	3	1.5km NE Teesmouth	27	EdF ER	1 Aug 2013	Download
Thanet	3	11km Foreness Point	100	Vattenfall	23 Sept 2010	Download
Walney 1	5	14km Walney Island	51	Orsted / SSE (+ prtnrs)	9 Jan 2012	<u>Download</u>
Walney 2	5	14km Walney Island	51	Orsted / SSE (+ prtnrs)	9 Jan 2012	Download
West of Duddon Sands	5	14km Walney Island	108	Scottish Power / Orsted	30 Oct 2014	<u>Download</u>
Westermost Rough	3	25km north of Spurn P	35	Orsted	26 Mar 2015	Download

National Awareness Charts

Chart	Link
North Sea North & West	<u>Download</u>
North Sea Central	Download
North Sea South	Download
English Channel	Download
South Western Approaches	Download
Irish Sea	<u>Download</u>
Baltic North	Download
Baltic South	Download

National Fishing Plotter Files

File	Link
Kingfisher Fishing Plotter Files – KIS-ORCA January 2018 (Subsea Cables and Wind Farms)	Download