The shaded blocks below indicate the areas of activity published within this Bulletin.

This Bulletin, along with previous issues, can be viewed at: www.kingfishercharts.org. Alternatively you can receive the Bulletin via email, by contacting: kingfisher@seafish.co.uk

* Unless otherwise stated, all co-ordinates listed in this Bulletin refer to WGS84 datum
**Brough Head Wave Farm Site – Survey Activities (New Entry 16-09-2011)**

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrica Energy Remote Sensor Call Sign: MQAM3</td>
<td>59° 08.515' N 003° 10.167' W</td>
<td>59° 11.040' N 003° 11.679' W</td>
<td>October 2011</td>
</tr>
<tr>
<td></td>
<td>59° 09.197' N 003° 22.961' W</td>
<td>59° 06.604' N 003° 24.556' W</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59° 07.708' N 003° 23.291' W</td>
<td>59° 06.604' N 003° 24.556' W</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59° 09.197' N 003° 22.961' W</td>
<td>58° 59.953' N 003° 25.438' W</td>
<td></td>
</tr>
<tr>
<td></td>
<td>58° 59.953' N 003° 25.438' W</td>
<td>58° 58.939' N 003° 21.667' W</td>
<td></td>
</tr>
</tbody>
</table>

For further information, please contact: Andrew Stenson, RPS Energy, Tel: 01483 756 500. Email: stensona@rpsgroup.com

**Deployment of Buoy – Shetland (Update 15-09-2011)**

Aegir Wave Power successfully deployed a 2nd waverider buoy on 6th Sept. 2011. The buoy is located 2km off the coast of Kettle Ness, southwest Shetland on co-ordinates: 60°02.84'N 01°24.535W

The first waverider buoy is around 4km off the coast of St. Ninian’s Isle, southwest Shetland, at the following coordinates: 59°58.560’N 01°26.500’W.

The buoys are yellow, 0.7m in diameter and fitted with a yellow flashing light. The buoys are moored by a slack line with underwater floats which allows the buoys to move around a 200m watch circle. Mariners are asked to keep a distance from the buoys.

The buoys will remain onsite for between 1-3 years, although it will be removed periodically for maintenance.

For further information, please contact: Contact: R.Hart; Tel: +44(0)131 5612555, Email enquiries@aegirwave.com, A. Bourhill; Tel: +44(0)1595 772000, Email info@nafc.uhi.ac.uk

**Moray Offshore Renewables Limited (MORL) – Survey Activities (Update 14-09-2011)**

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>MV Ivero Call Sign: PCKA</td>
<td>N/A</td>
<td>1. 58°18.185’N 002°41.038’W</td>
<td>14th September 2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. 58°17.606’N 001°43.635’W</td>
<td>For 30 Days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. 57°35.394’N 001°45.117’W</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. 57°35.740’N 002°41.203’W</td>
<td></td>
</tr>
</tbody>
</table>

For further information, please contact: Gardline, Tel: +44 (0)1493 845 600, Fax: +44 (0)1493 852 106
Inch Cape Offshore Wind Farm – Sampling Survey Activities (New Entry 13-09-2011)
The survey area is located at Inch Cape in the outer Firth of Tay region. The site is located approximately 15 – 22 km to the east of the Angus coast in Scotland. The geotechnical site investigation being conducted at this stage will consist of three boreholes.

1. 56°26.408’N 002°14.495’W
2. 56°26.408’N 002°14.476’W
3. 56°26.397’N 002°14.496’W

SRV Bavenit (call sign UAIO) an 86m dynamically-positioned survey vessel, will be conducting three geotechnical boreholes. She will mobilise from Montrose on about September 15th.

For further information, please contact SRV Bavenit. Te : +47 51 406 100, Sat P hone: +873 32 73 33 610, Email:master@bavenit.com

European Offshore Wind Farm – Survey Activities (Update 01-09-2011)

| Vessel: Eileen May  
| Call Sign: LHOD |
| Towing Cable Length & Submerged Depth | Area Covered | Start Timeframe & Duration |
| 100m | 1. 57°24.583’N 001°51.099’W |
| | 2. 57°23.540’N 001°47.427’W |
| | 3. 57°15.195’N 001°55.747’W |
| | 4. 57°15.216’N 001°38.590’W |
| | 5. 57°12.008’N 001°56.576’W |
| | 6. 57°11.987’N 001°56.797’W |
| | 7. 57°01.439’N 002°01.707’W |
| | 8. 57°02.364’N 002°07.596’W |

2nd – 30th September 2011

For further information, please contact: Claire Lacey email: cl@smru.co.uk
Hornsea Offshore Wind Farm – Survey Activities (Update 29-09-2011)

**Buoy**
Meteorological buoys and acoustic wave and current (AWAC) profilers are located as in the table below. Lighting and navigational aspects of the meteorological buoys are to Trinity House and IALA standards; they are equipped with a St. Andrew's cross, radar reflector and an amber navigation light set to flash 5 times at 1Hz every 20 seconds. The DWR buoy is painted to IALA standard and is equipped with a radar reflector and an amber navigation light set to flash 5 times at 1Hz every 20 seconds. It is requested that a clearance distance of 300m is maintained around all buoys for safe passage and away from the riser lines and seabed instrumentation as interference has occurred. Servicing on the buoys has now been completed.

The DWR at Outer Well Bank has now been moved to a new moored location at Schooner Field (location 7a). The meteorological buoy and AWAC profiler that was located at Windermere Field (location 4) has now been decommissioned. AWAC profilers have been removed from locations 2, 3, 5 and 6 so that only meteorological buoys remain. The removal of AWAC profiler from Well Bank Flat (location 1) (the mbbuoy will remain in place) and decommissioning of meteorological buoys and AWAC profilers at Off Ground and Ravenspurn Field (location 5 and 6 respectively) is due, date and vessel TBA.

<table>
<thead>
<tr>
<th>Location</th>
<th>Suggested Name</th>
<th>Equipment</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Well Bank Flat</td>
<td>Met. buoy + AWAC</td>
<td>53° 58.200'N</td>
<td>2° 23.580'E</td>
</tr>
<tr>
<td>2</td>
<td>Inner Well Bank Rough</td>
<td>Met. buoy</td>
<td>53° 52.950'N</td>
<td>1° 59.190'E</td>
</tr>
<tr>
<td>3</td>
<td>Chiswick Field</td>
<td>Met. buoy</td>
<td>53° 54.250'N</td>
<td>2° 25.900'E</td>
</tr>
<tr>
<td>4</td>
<td>Off Ground</td>
<td>Met. buoy</td>
<td>53° 52.540'N</td>
<td>0° 47.800'E</td>
</tr>
<tr>
<td>5</td>
<td>Ravenspurn Field</td>
<td>Met. buoy</td>
<td>54° 09.580'N</td>
<td>0° 49.300'E</td>
</tr>
<tr>
<td>7a</td>
<td>Schooner Field</td>
<td>DWR buoy</td>
<td>53° 53.367'N</td>
<td>1° 59.100'E</td>
</tr>
</tbody>
</table>

**Surveys**
The MV Southern Star (call sign C6DZ8), a 36 m survey vessel will be conducting a bird and marine mammal survey within the Hornsea Zone, running predetermined transect lines spaced 6 km (3.2 Nm) and 2 km (1.08 Nm) apart at a speed of 10 kts. These surveys will be undertaken monthly during daylight hours – dawn until dusk. The vessel will be towing a hydrophone astern, on approximately 200 m of cable towed at ~7 m depth or less, during daylight hours only.

Phase one surveys are now complete, phase two surveys will be undertaken in late September/early October. The benthic ecology survey is to be undertaken using the vessel the Julie H. A benthic grab sampler, 2 meter beam trawl and video system will be deployed at selected sites. The grab sampler will be deployed directly to the seabed from the stern of the vessel. The 2 m beam trawl will be deployed from the stern with trawling undertaken for a distance of up to 500 m at selected sites. The video system will be used to collect seabed video footage along a transect extending up to approximately 70m either side of the survey site. The vessel will be operating on a 24 hour basis. The vessel will have a Fisheries Liaison Officer on board throughout the survey operations.

A local commercial fishing vessel will be conducting a potting survey at three sites within the cable route corridor between 1st - 15th October. During bad weather the vessel will return to Grimsby. The vessel will have a Fisheries Liaison officer onboard throughout the survey operations. The survey areas will be: west of Silver Pit; north-east of Sole Pit; and within the six nm limit off Horseshoe Point.

The FV Emulator (call sign MBBN7), an 18m wooden hulled trawler, will be conducting a subtidal fish ecology survey (using an otter trawl) at a total of 41 trawl locations, within the Hornsea zone and cable corridor areas for approximately 2 weeks. Each trawl tow will last 30 minutes at a speed of 3-4 knots on a constant heading.

A geophysical survey of Subzone 2 is currently in progress using hull mounted acoustic equipment and towed acoustic equipment, which will be towed no more than 300 m behind the MV Aquarius. The vessel will be operating on a 24 hour basis and will have a Fisheries Liaison Officer on board throughout the survey operations. The survey is expected to take 2 – 3 months and throughout survey operations, other vessels are to maintain a wide berth of at least 500 m.

A geophysical survey of Subzone 2 is currently in progress using hull mounted acoustic equipment and towed acoustic equipment, which will be towed no more than 300 m behind the MV Aquarius. The vessel will be operating on a 24 hour basis and will have a Fisheries Liaison Officer on board throughout the survey operations. The survey is expected to take 2 – 3 months and throughout survey operations, other vessels are to maintain a wide berth of at least 500 m.

Subzone 2 Boundaries:
54°01.315'N 001°40.957'E
54°01.675'N 001°12.669'E
53°49.007'N 001°38.961'E
53°49.069'N 001°12.449'E

*Continued over page*...
The Normand Mermaid is currently undertaking a geotechnical investigation until November. The majority of the investigation is due to take place within Subzone 1. However, some investigation locations will be outside of Subzone 1. The proposed works includes continuous sampling boreholes to 50m, continuous downhole CPTs to 50m and composite boreholes. Minimum depth of investigation anticipated to be in order of forty to fifty (40-50) m below the mudline level. Vessels will be displaying the appropriate lights and shapes as required under the COLREGS Rule 27 (b) and we ask that other vessels give these a wide berth.

Met Mast Installation
Installation of a foundation and meteorological mast at the coordinates (53°53.15'N 001° 59.50'E) are underway and is expected to continue until at least mid October. The construction site is marked by 4 cardinal buoys located 1km north, south, east, and west from the coordinates. The foundation is currently installed and commissioning is being carried out from jack-up barge JB-114. Due to the anchor spread of the JB-114 it is advised that all vessels maintain a distance of 500m from these coordinates whilst it is on site. The anchor handling tugs Union Sapphire, and Andre B will be supporting the JB-114 offshore. The JB-114 will be coordinating all activities whilst it is on site. One of the anchor handling tugs, likely the Union Sapphire, will be acting as a ‘guard’ vessel whilst the JB-114 is jacked up. The tugs and the deck barge are operated by SMIT. The JB-114 is owned by the company Jackup Barge Operations BV.

For further information, please contact: Chris Jenner, Tel: 07889410553, Email: Chris.Jenner@mainstreamrp.com, OR Hornsea Zone Onshore Fisheries Liaison Officer: Nick Garside, NFFO Services Ltd, Tel: 01904 635 432, Email: nick.garside@live.co.uk

Humber Survey – Survey Activities (New Entry 28-09-2011)

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 106b</td>
<td>1. 53° 25.89’N 000° 37.34’E</td>
<td>27th September 2011 For 2 weeks</td>
</tr>
<tr>
<td>Area 106c</td>
<td>1. 53° 36.68’N 000° 32.93’E</td>
<td>27th September 2011 For 2 weeks</td>
</tr>
<tr>
<td>Area 400</td>
<td>1. 53° 22.80’N 000° 25.23’E</td>
<td>27th September 2011 For 2 weeks</td>
</tr>
<tr>
<td>Area 492</td>
<td>1. 53° 34.34’N 000° 31.99’E</td>
<td>27th September 2011 For 2 weeks</td>
</tr>
<tr>
<td>Area 400</td>
<td>1. 53° 23.79’N 000° 30.01’E</td>
<td>27th September 2011 For 2 weeks</td>
</tr>
<tr>
<td>Area 400</td>
<td>1. 53° 22.80’N 000° 25.23’E</td>
<td>27th September 2011 For 2 weeks</td>
</tr>
<tr>
<td>Area 492</td>
<td>1. 53° 34.34’N 000° 31.99’E</td>
<td>27th September 2011 For 2 weeks</td>
</tr>
</tbody>
</table>

For further information, please contact: Osiris Projects, Tel: +44 (0) 151 3281120
**Sheringham Shoal – Installation, Survey, Deployment of Buoys (Update 27-09-2011)**

**Cable Installation**

Please be advised that Jet Trenching Operations will be starting in the area designated as part of the Sheringham Shoal windfarm, Export and Infield using vessel Toisa Warrior and Survey vessel Discovery Rose. These are expected to commence from the 5th September 2011 to end of March 2012.

**Installation**

The Jack up Installation Barge (J.I.B.) SEA JACK will be working in the Sheringham Shoal Wind Farm. In the zone she will install the two Tower modules, followed by Nacelle and three separate rotor blades.

Boundaries of this zone are identified by 4 cardinal buoys in the below listed positions:

- **North Cardinal** – 53°09.913’N 001°07.686’E – (VQ)
- **South Cardinal** – 53°06.361’N 001°10.000’E – (VQ(6) + LFI 10 sec)
- **East Cardinal** – 53°07.318’N 001°12.287’E – (VQ(3) 5 sec)
- **West Cardinal** – 53°08.956’N 001°05.413’E – (VQ(9) 10 sec)

Turbine on location C3 – 53°09.22’N 001°06.60’E
Turbine on location F2 – 53°09.23’N 001°08.13’E
Turbine on location C1 – 53°10.10’N 001°06.03’E
Turbine on location I1 – 53°09.23’N 001°09.66’E

The SEA JACK will be positioned using four anchors, placed by Anchor Handling tugs. The anchors will be marked by yellow buoys. The installation will then take place using the vessels crane, when the vessel is fully jacked out of the water.

For further information, please contact: HLV Oleg Strashnov, Tel +870 7650550118, Email: OS-Bridge@SHL.com.cy

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**London Array Offshore Wind Farm – Pre-Construction Works (Update 26-09-2011)**

The London Array Offshore Wind Farm will be constructed in the Outer Thames Estuary, it will be situated midway between the Kent and Essex coastlines, more than 20km (12 miles) from each shore. Phase one consist of 175 wind turbines, installed on two sandbanks; Long Sand and Kentish Knock and in the Knock Deep channel that lies between, in water depths ranging from 0 to 25 m. The project will be connected by subsea cables to a new onshore substation at Cleve Hill on the North Kent coast. From the substation, the electricity will be fed into the existing National Grid transmission network.

- **During Construction**, a 500m radius around each wind turbine, their foundation structures and the offshore substation platforms within the construction zones while construction work is ongoing;
- **50m radius around** each of the wind turbines, offshore substation platforms and associated foundation structures installed, complete or incomplete (until commissioned as part of the London Array Offshore Wind Farm);
- **During Major Maintenance** – 500m radius around all major maintenance works being undertaken around the wind turbines, offshore sub-stations and foundations.

**Work Schedule**

The foundation installation Jack-up barge Sea Worker accompanied by tugs Sea Alfa and Sea Echo will continue the foundation installation. The sequence of installation will be D17, G17 and D16. The sequence is governed to an extent by tidal conditions so is liable to change. Whilst construction is taking place at these positions a 500m safety zone is established, and vessels are to keep clear.

Foundation installation vessel MPI Adventure will load foundations at I06 and F06 at Vlissingen, then return to the field to install them. Whilst construction is taking place at these positions a 500m safety zone is established, and vessels are to keep clear.

The crane vessel Svanen, supported by the tugs Viking and Fiona F on site and will install her final foundation F02. The Svanen will demobilize before heading back to Vlissingen. Whilst construction is taking place at these positions a 500m safety zone is established, and vessels are to keep clear.

The array cable installation vessel ‘Jan Steen’ will install inter-array cables between SS1-F18 and K17-L17. Whilst construction is taking place at these positions a 500m safety zone is established, and vessels are to keep clear. The Jan Steen shall be supported by the vessel MCS Ailsa plus crew-boats. Export cable installation vessel Stemat Spirit is loading the first Export cable in Norway, for arrival on site early October.

The vessels ‘Neptune’ and ‘Sea Mink’ will be undertaking Marine Mammal Observation duties, prior to and during piling operations. Construction site guard vessel duties will be covered by the Mary Ann 1.

Continued over page...
...continued from previous page

**Installations**
Foundation monopile and transition piece installed at the locations as listed below:

<table>
<thead>
<tr>
<th>SS1</th>
<th>51° 37.864N</th>
<th>001° 26.259E</th>
<th>SS2</th>
<th>51° 36.148N</th>
<th>001° 32.084E</th>
</tr>
</thead>
<tbody>
<tr>
<td>C18</td>
<td>51° 37.369N</td>
<td>001° 25.191E</td>
<td>K17</td>
<td>51° 40.398N</td>
<td>001° 30.180E</td>
</tr>
<tr>
<td>H19</td>
<td>51° 39.635N</td>
<td>001° 27.616E</td>
<td>E15</td>
<td>51° 37.493N</td>
<td>001° 27.609E</td>
</tr>
<tr>
<td>L19</td>
<td>51° 41.265N</td>
<td>001° 29.898E</td>
<td>C14</td>
<td>51° 36.448N</td>
<td>001° 26.895E</td>
</tr>
<tr>
<td>F20</td>
<td>51° 39.051N</td>
<td>001° 26.048E</td>
<td>D19</td>
<td>51° 38.008N</td>
<td>001° 27.891E</td>
</tr>
<tr>
<td>D20</td>
<td>51° 38.024N</td>
<td>001° 24.612E</td>
<td>B17</td>
<td>51° 36.738N</td>
<td>001° 25.090E</td>
</tr>
<tr>
<td>K19</td>
<td>51° 40.858N</td>
<td>001° 29.329E</td>
<td>C19</td>
<td>51° 37.599N</td>
<td>001° 24.765E</td>
</tr>
<tr>
<td>M19</td>
<td>51° 41.672N</td>
<td>001° 30.465E</td>
<td>I17</td>
<td>51° 39.582N</td>
<td>001° 29.038E</td>
</tr>
<tr>
<td>I19</td>
<td>51° 40.042N</td>
<td>001° 28.186E</td>
<td>L20</td>
<td>51° 41.495N</td>
<td>001° 29.472E</td>
</tr>
<tr>
<td>I20</td>
<td>51° 40.272N</td>
<td>001° 27.760E</td>
<td>M20</td>
<td>51° 40.902N</td>
<td>001° 30.042E</td>
</tr>
<tr>
<td>G16</td>
<td>51° 38.537N</td>
<td>001° 28.323E</td>
<td>I18</td>
<td>51° 39.812N</td>
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<tr>
<td>F17</td>
<td>51° 38.360N</td>
<td>001° 27.327E</td>
<td>H18</td>
<td>51° 39.405N</td>
<td>001° 28.042E</td>
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<td>G18</td>
<td>51° 38.998N</td>
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<td>H17</td>
<td>51° 39.175N</td>
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<td>E17</td>
<td>51° 37.953N</td>
<td>001° 27.459E</td>
<td>G14</td>
<td>51° 38.077N</td>
<td>001° 29.175E</td>
</tr>
<tr>
<td>E16</td>
<td>51° 37.723N</td>
<td>001° 27.183E</td>
<td>G15</td>
<td>51° 38.307N</td>
<td>001° 28.749E</td>
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<tr>
<td>B16</td>
<td>51° 36.501N</td>
<td>001° 25.473E</td>
<td>H16</td>
<td>51° 38.945N</td>
<td>001° 28.894E</td>
</tr>
</tbody>
</table>

All Foundations are installed with Lights: Fl(Y) 2.5sec 2Nm. Two wave rider buoys installed as listed below. The wave rider buoys are protected by 2 guard buoys (Lt. Fl (5) Y 20sec 2nm) approx 50m to the North and South of each wave rider buoy.

**Knock Deep (North)** - 51°36.960'N 01º26.015'E (Fl (5) Y 20s 2nm)  | **Knock Deep (South)** - 51°35.900'N 01º29.935'E (Fl (5) Y 20s 2nm)

For a copy of the Kingfisher Awareness Flyer for the London Array Offshore Wind Farm, please contact the undersigned. Alternatively, click on the link below, or visit [www.kingfishercharts.org](http://www.kingfishercharts.org)

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### Lincoffshore Wind Farm – Construction Activity & Survey (Update 26-09-2011)

#### Cable Installation
Mariners are advised to note that construction works within the Lincs site are fully underway, with the first 3 foundations and transition pieces installed.

#### Construction Activity
Foundation installation continues at LS12, LS13, LS14. Secondary foundation works via Valhalla of Whitstable, Sound Prospector, Sound Provider and Forth Jouster at selected installed foundations. Ongoing works around offshore substation. Guard Vessels Edlei, Huntress and Rathaell S will be on-site within the Lincs site and along export cable route.

The next 3 locations at which foundation installation will commence are LS03, LS04 & LS05. 500m Safety Zones will exist around these foundation structures during installation, reverting to a 50m Safety Zone once the initial works are completed.

Deployment of new Aids to Navigation to mark the boundary of new Anchorages in the Inner Wash via the Trinity House Buoy Laying Vessel, Patricia. These anchorages have been re-designated to maintain a minimum of 500m distance between anchorage areas and the Lincs export cable once installed. The buoys will be yellow special marks, with high visibility daymarks and a yellow St Andrews Cross topmark.

**B1:** 52°58.947N 000°19.301'E / **B2:** 52°57.611'N 000°18.372'E / **W1:** 52°55.703'N 000°16.524'E / **W2:** 52°54.942'N 000°16.003'E

Mariners are advised to note that construction works within the Lincs site are fully underway, with the first 27 foundations and transition pieces installed (see locations and coordinates below). Secondary works at some of these locations will continue this week. 500m safety zones will re-apply around any structure where secondary works are underway, since diving operations are taking place. Mariners are advised to maintain a safe working distance from the Sound Prospector vessel.

**Continued over page...**
For further information, please contact: Email: Renewables@Centrica.com OR a Fisheries Liaison Officer (FLO) will be aboard the survey vessel for the duration of the proposed works – Mob: 078371705192.

**Lynn and Inner Dowsing Survey – Survey Activities (New Entry 26-09-2011)**

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrica Energy EGS Pioneer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wessex Explorer Call Sign: MHGV6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further information, please contact: Simon Prince, Tel: 07920 273866, email:sprince@dsml.co.uk
**East Anglia Offshore Windfarm – Survey Activity & Buoys (Update 16-09-2011)**

**Deployment of Buoys**

Recording oceanographic equipment is moored at the following locations from 1\(^{st}\) January 2011 to 31\(^{st}\) June 2012:

- **Waverider buoys:**
  1. 52°44.340’N 002°23.680’E
  2. 52°45.810’N 002°58.080’E
  3. 52°18.620’N 002°27.490’E

- **AWAC on sea-bed Landers:**
  1. 52°18.620’N 002°27.490’E
  2. 52°08.550’N 002°30.240’E

At each site there will be a yellow toroidal shaped guard buoy fitted with a radar reflector and a yellow light exhibiting the sequence FI Y (5) 20s. The Waveriders also have a yellow light exhibiting the same sequence. The Laboratory will be grateful if all shipping keeps at least 4 cables clear of the instruments.

_For further information, please contact: Cefas, Pakefield Road, Lowestoft, NR33 0HT, Tel: +44 (0) 1502 562244_

**Survey**

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV Discovery</td>
<td>N/A</td>
<td></td>
<td>19(^{th}) September 2011 For 50 Days</td>
</tr>
<tr>
<td>Call Sign: 2AE68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nabcat II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Sign: 2DKC7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further information, please contact: Patrick McGovern, Email: pjm@brownmay.com, Mobile: +44 (0) 77027 10176.

**Humber Gateway Offshore Wind Farm – Geotechnical Survey (Update 14-09-2011)**

Located 8km off the Holderness coast of East Yorkshire, near the Humber Estuary, the Humber Gateway Offshore Wind Farm will comprise of up to 77 wind turbines of 3MW, for a total capacity up to 230MW. The works will be carried out in water depths ranging from 11m – 17m.

_Prior to the start of the installation works, an extensive Geotechnical Survey will be carried out by GeoSea to provide the information needed in the design of the wind turbine foundations. The soil investigation works will be carried out by the self elevating platform “Vagent”. The geotechnical surveys will be undertaken within the following boundary:_

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.On</td>
<td></td>
<td></td>
<td>12(^{th}) September 2011 – 31(^{th}) October 2011</td>
</tr>
<tr>
<td>MV FlatHolm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHZL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At 65 locations, seabed cone penetration tests to a depth of 50m below seabed level will be undertaken. At 20 locations, drilling and sampling to a depth of 50m below seabed level will be undertaken, with various ‘down the hole’ tests carried out. The anchor handling tug “Dutch Pearl” will be supporting the “Vagent” in completing these tests.

At 11 locations seabed cone penetration tests and vibrocoring to a depth of 5m below seabed level will be undertaken. The survey vessel “Flatholm” will undertake these tests. These tests will commence 16\(^{th}\) June 2011 until the end of November.

_For further information, please contact: Regis Guillaume, Tel: +32 470 89 13 70. The vessels involved can be reached on Immingham or Grimsby port channels VHF 19, 68 or 74, or safety channel 16 when working._

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Race Bank Offshore Wind Farm – Survey (New Entry 26-08-2011)
Fishermen are advised of the planned offshore survey within the boundary of the proposed Race Bank offshore wind farm.

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrica Mariner Sea</td>
<td>53°20.092'N 000°44.820'E</td>
<td>53°18.131'N 000°44.721'E</td>
<td>29th August 2011 – 30th September 2011</td>
</tr>
<tr>
<td></td>
<td>53°17.555'N 000°46.558'E</td>
<td>53°15.280'N 000°47.369'E</td>
<td></td>
</tr>
<tr>
<td></td>
<td>53°13.226'N 000°53.750'E</td>
<td>53°15.720'N 000°55.991'E</td>
<td></td>
</tr>
<tr>
<td></td>
<td>53°17.547'N 000°50.338'E</td>
<td>53°20.176'N 000°49.206'E</td>
<td></td>
</tr>
</tbody>
</table>

For further information, please contact: Kit Hawkins, Centrica Renewable Energy Ltd, Tel: +44(0)1753 494466, Mobile:+44 (0)7769 545816

Inner Dowsing Offshore Wind Farm – Maintenance (Update 26-08-2011)
Mariners are advised that maintenance work is scheduled to take place within the Inner Dowsing Offshore Wind Farm site. The activities will be undertaken by the vessel 'MS Wind' from the 3rd September to the 31st December 2011.

For further information, please contact: Alexandra Bowers, RPS Energy, Tel:+44 (0) 1483 746 500, Email:bowersa@rpsgroup.com.

Greater Gabbard Offshore Wind Farm – Installation Activities (Update 08-08-2011)
The third and final export cable is now due to be installed commencing the 16th August 2011 (subject to any weather delays). The cable will be laid using the cable lay barge ASV Pioneer and will be attended by 3 support tugs. The cable barge will be using a minimum 3 point anchor mooring arrangement which will extend up to 500m from the barge.

Between 1st June 2011 and 1st October 2011 there will be a significant increase in construction vessel activity within both the Inner Gabbard and Galloper Fields as inter array cable installation is undertaken. All inter array cables are planned during this period. These site areas are considered to be active construction zones with significant sub-sea cable installation operations and vessel movements and all non construction traffic (fishing and recreational) are requested to remain outside the consented boundaries of the site due to:

- Free Laid Exposed Cables on the seabed exist within both arrays (Inner Gabbard Array and Galloper Array) in locations between turbine locations.
- Exposed cable ends exist on all Turbine locations/Transition pieces where array cabling has been installed. These exposed ends are located between the Turbine Locations and up to 150 metres from them. Many of these cables are now live.
- Construction vessel traffic for the inter array cabling programme for both fields is considerable and involves many support vessels including the primary cable installation vessels: Polar Prince, Topaz Commander, Deep Cygnus, M.V Sia.

Please be advised of the cable crossing points below:
1. Concerto North Cable Crossing Point 52°11.723'N 001°40.876'E
2. Concerto South Cable Crossing Point 52°10.607'N 001°41.405'E
3. Farland Cable Crossing Point 52°05.084'N 001°46.746'E

All fishing operations are requested to observe an advisory safety zone of 500m around the cable crossing points above and fishing vessels should exercise caution when engaged in fishing operations near these locations and the cable route.

For further information, please contact: Danbrit Ship Management Ltd, Onshore mobile Simon Prince 07920 273866, Simon Calden 07825 382896.
### St Ives Bay Wave Hub Site – Survey Activities (Update 27-09-2011)

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
</table>
| EMU Nab Cat II Call sign: 2DKC7 | N/A                                  | 1. 50°22.830′N 005°37.760′W  
2. 50°22.980′N 005°36.100′W  
3. 50°20.860′N 005°35.560′W  
4. 50°20.700′N 005°37.230′W | 26th September 2011 - 14th October 2011 For 3 days |
| MTS Viking Call Sign: 2DID4 | N/A                                  | 1. 50°14.095′N 005°28.874′W  
2. 50°20.820′N 005°37.145′W | |

Cable Route:
1. 50°14.095′N 005°28.874′W  
2. 50°20.820′N 005°37.145′W

Please note the MTS Viking (call sign 2DID4), an 11m charter vessel, will also be conducting ecological survey operations using subsea camera and grab sampling.

For further information, please contact: Osiris Projects, Tel: +44 (0) 151 3281120

### Watergate Bay (North Cornwall) – Survey Activities (Update 14-09-2011)

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
</table>
| EMU Nab Cat II Call sign: 2DKC7 | N/A                                  | 1. 50°33.820′N 005°32.330′W  
2. 50°27.199′N 005°02.599′W  
3. 50°26.199′N 005°03.300′W  
4. 50°25.000′N 005°12.100′W  
5. 50°28.380′N 005°12.102′W  
6. 50°33.150′N 005°32.330′W | 16th September 2011 For 7 weeks |
| Neptune Call Sign: TFJC | N/A                                  | |

For further information, please contact: Ashley Spratt or Nick Simmons at EMU Limited, Tel: +44 (0) 1489 860050.
Walney 1 & 2 Offshore Wind Farms – Construction Activity (Update 29-09-2011)

Walney Extension
Several ‘Community Consultation Events’ are planned at the times and venues listed below and you are advised to attend if you feel that there are any issues concerning this development that might affect you. These events will provide an opportunity to discuss the project plans and timescales.

If you require any further details about the project please go to www.walneyextension.com or email the team on walneyextension@dongenergy.co.uk

Walney 1
Energising and commissioning at Walney 1 is now complete and all 51 Turbines are producing energy to the National Grid. Two Dive Support Vessels ‘HBC Performer’ and ‘HBC Supporter’ are on site and carrying out Diving and other operations at installed positions as required and when weather permits.

Walney 2
All mariners should note that Walney 2 is now a construction site and unless you have specific business or that circumstances relating to your safety make it necessary to transit the site you are advised to keep well clear and keep outside of the buoyed area until the Wind Farm is fully constructed and commissioned and you have been notified.

Site Boundary for Walney 2:
1. 54° 04.92' N  3° 32.15' W
2. 54° 03.67' N  3° 39.71' W
3. 54° 02.23' N  3° 34.12' W
4. 54° 06.23' N  3° 39.74' W
5. 54° 07.89' N  3° 37.85' W

Construction
The Sub-Station and all Monopiles and Transition Pieces have been installed and fitted. Tower sections, Nacelles and Blades (WTGs) for the remaining WTGs are being fitted by the self propelled DP Jack-up vessel Seajacks Kraken.

Export Cable Burial
‘Edda Fjord’ has now completed burial and remedial work on the exposed positions of the Walney 1 and Walney 2 Export Cables and is now off the project. ‘Swiber Else-Marie’ will continue with trenching and burial operations on the Infield or Inter-Array Cables.

1) Walney 1 Export Cable: 53°57.40’N 003°17.00’W to 54°00.30’N 003°16.50’W
2) Walney 1 Export Cable: 54°01.20’N 003°22.20’W to 54°01.50’N 003°22.20’W
3) Walney 2 Export Cable: 53°58.30’N 003°18.60’W to 54°01.10’N 003°24.50’W

The two Guard boats ‘Isadale’ and Headway’ will remain on site until 30th September.

Infield Or Inter-Array Cables
‘Stemat 82’ and support tugs ‘Neptune Mariner’ and ‘Nova K’ are continuing with the Infield or Inter-Array cable lay. ‘Stemat 82’ will make frequent calls at Barrow to re-load and it should be noted that there will be Exposed Cable on the seabed between the Turbine positions within the Wind Farm perimeter from now until you have been informed that all the cables have been safely buried.

Infared Wind Farm
All mariners should note that this is a construction site and unless you have specific business or that circumstances relating to your safety make it necessary to transit the site you are advised to keep well clear and keep outside of the buoyed area until the Wind Farm is fully constructed and commissioned and you have been notified.

Construction
All 30 Turbines including Tower Sections, Nacelles and Blades have now been installed. 15 Turbines have now been energised and are producing electricity to the national grid. Small vessels are continuing with a variety of tasks inside the Wind Farm.

Continued over page...
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including the transfer of technicians to work on energizing the Turbines, the installation of the cable into the J-Tubes and cable burial. There will be a constant movement of traffic between the Wind Farm and Barrow / Belfast from now until it is fully commissioned.

Each erected Turbine, as well as the Sub-Station, is fitted with a solar powered temporary light FL Y 2.5s (visibility approx. 2ml.) and these will remain in position until the Wind Farm is fully commissioned.

Export Cable Installation

Guard Vessel ‘Glen Ravel’ is guarding the section of exposed cables where the Ormonde Export Cable crosses the Walney Export Cable in the Heysham Lake area as well any exposed stretch of cable that has been surface laid and not yet buried from the landfall position out to KP 5.0. ‘Glen Ravel’ can be contacted on VHF Channels 16 and 12 and will also monitor Heysham Traffic on VHF Channel 14.

Inter Array Cables

It should be noted that there will be Exposed Cable on the seabed between the Turbine positions within the Wind Farm perimeter until you have been informed that all the cables have been safely connected and buried.

All vessels working at this Wind Farm site can be contacted on VHF Channels 16 & 12 for information relating to vessel movements only.

For a copy of the Kingfisher Awareness Flyer for the Ormonde Offshore Wind Farm, please contact the undersigned. Alternatively, click on the link below, or visit www.kingfishercharts.org

Kingfisher Awareness Flyer: Ormonde Offshore Wind Farm

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

Robin Rigg Offshore Wind Farm – Plotter Files & Operations (Update 28-09-2011)

In the interests of safety, mariners are requested not to anchor within at least 500 meters of the wind farm perimeter because there is a danger of exposed power cable on the seabed close to some of the turbine structures. Fishermen are requested to observe the advisory safety zone of at least 50 meters around each turbine and the need to exercise extreme caution when operating in the vicinity of any of the wind farm turbines. All mariners should be aware that there is mandatory anchor exclusion zone that extends for 200 meters either side of the laid export power cable and this includes anchors that are attached to static fishing gear.

A CD of the Robin Rigg layout including Inter-Array or Infield Cables as well as the Export Cable Route is being prepared. The disk will contain fishing plotter files and will be compatible with the following plotters: Litton Fish master, Sodena Turbo, Maxsea, TRAX, Transas Navi-Fish, SIS Microplot, Quodfish, TM Planner and Penta plotters.

Once the disk is ready it will be distributed to all the fishermen for whom I have contact addresses. If anybody else feels that they would like a copy or if they know of anybody who would require a copy please contact me. The data will also be available for download from the Kingfisher Website with a link provided within this notice.

For a copy of the Kingfisher Awareness Flyer for the Robin Rigg Offshore Wind Farm, please contact the undersigned. Alternatively, click on the link below, or visit www.kingfishercharts.org

Kingfisher Awareness Flyer: Robin Rigg Offshore Wind Farm

For further information, please contact: Tom Watson, Tel: 01253 875565, Mobile: 07903 173624

Irish Sea Offshore Wind Farm – Deployment of Buys (Update 26-09-2011)

Metocean equipment will be deployed / removed at the following locations in the Irish Sea Zone. All equipment is marked with surface marker buoys with compliant flashing lights.

The following activities will be occurring in October (Subject to weather):

- Removal of ADP from Location 8 & 13.
- Deploy ADP at location 7 & 9.

Continued over page...
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- Carry out water sampling at Locations 7 & 9.
- Servicing wavebuoys at locations 1 & 12.

1. 53°39.563’N 004°52.974’W
2. 53°49.034’N 004°49.911’W
3. 53°49.788’N 004°39.234’W
4. 53°45.092’N 004°27.230’W
5. 53°38.829’N 004°27.361’W
6. 53°41.705’N 004°20.744’W
7. 53°38.791’N 004°03.158’W
8. 53°38.758’N 004°11.390’W
9. 53°44.796’N 004°13.527’W
10. 53°56.054’N 004°16.490’W
11. 53°55.491’N 004°09.300’W
12. 53°49.709’N 004°08.061’W
13. 53°53.166’N 004°04.786’W
14. 54°01.387’N 004°05.157’W

For further information, please contact: Simon Calden: 07825 382896 or Simon Prince: 07920 273866

Rhyl Development – Geophysical Survey (New Entry 26-09-2011)

Centrica Energy Upstream (CEU) have commissioned a Geophysical survey of the site known as the Rhyl Development. Although the area of survey is immediately to the North West of the Walney 2 Windfarm Site and within the boundary of the proposed Walney Extension Site it is not connected with either of these developments.

This survey will be carried out by the survey vessel ‘Fugro Discovery’ and is expected to last for approx. 9 days, depending on weather and conditions. ‘Fugro Discovery’ is currently in Barrow waiting on weather but will sail as soon as weather and condition improve.

As this survey will involve the vessel towing highly sensitive sonar equipment at distances of up to 150 meters astern of the vessel as well as at other times towing a Gradiometer at distances of up to 200 meters astern, all vessels are requested to give a wide berth when passing and if possible reduce speed. ‘Fugro Discovery’ will keep a listening watch on VHF Channels 16 & 12

There is an N.F.F.O. Fisheries Liaison Officer onboard and he can be contacted on VHF Channels 16 or 12 for information relating to the vessels movements for this survey only.

Survey

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Towing Cable Length &amp; Submerged Depth</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halcyon Days</td>
<td>N/A</td>
<td>53°20’N 003°50’W</td>
<td>27th September 2011 For 5 SDays</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53°40’N 003°30’W</td>
<td></td>
</tr>
</tbody>
</table>

For further information, please contact: Tom Watson, Tel: 01253 875565, Mobile: 07903 173624

Barrow Offshore Wind Farm – Operations (Update 23-08-2011)

All of the Turbines Barrow Offshore Wind Farm are operational and switched to automatic. The only vessels engaged on any work inside the Wind Farm at this time are small service vessels operating as and when required, depending on weather. Any vessel engaged on any kind of work at this Wind Farm can be contacted on VHF Channels 16 & 12 for information relating to vessel movements only.

If any fishermen have pots set, or are considering setting any pots, within the Wind Farm Perimeter they are advised to make sure that their gear is properly marked and weighted and is clear of any of the Turbines. They are advised to lay their gear up and down the lanes rather than across the Inter-Array or Infield Cables and are advised to use weights rather than anchors.

In the interests of safety mariners are requested not to anchor within at least 500 meters of the wind farm perimeter and, because there is a danger of exposed power cabl on the seabed close to some of the turbine structures, fishermen are requested to observe the agreed extended safety zone of 100 meters around each turbine and the need to exercise extreme caution when operating in the vicinity of any of the wind farm turbines

For further information, please contact: Tom Watson, Tel: 01253 875565, Mob: 07903 173 624
Gwynt y Môr Offshore Wind Farm – Construction Activities (Update 19-08-2011)

The Gwynt y Môr Offshore Wind Farm Project is located between 15km to 20km off the coast of North Wales in the Liverpool Bay area of the Irish Sea. It is adjacent to RWE Innogy’s North Hoyle and Rhyl Flats offshore wind farms. The consented site covers an area of 124km². The water depth ranges from 12m to 28m LAT with a tidal range of 8.5m.

The Gwynt y Môr Offshore Wind Farm Project comprises an array of WTGs, supported on foundations, and connected to offshore substation platforms by subsea array cables. The offshore substation platforms are connected via a 20km offshore export cable route to landfall and a 12km onshore export cable route to an onshore substation at St Asaph in North Wales where the Project will be connected to the National Grid at 400kV.

The site will be made up of 160 WTGs, each with a rated capacity of 3.6MW and a rotor diameter of 107m. The turbine hub height will be 84.4m LAT and the tip height 137.9m LAT. The first stage of WTG foundations will be steel monopiles up to 6m diameter. The first stage WTG foundations will cover 92 locations with a maximum water depth of 21m LAT. The second stage of WTG foundations will cover 68 locations with a maximum water depth of 28m LAT. The concept for the second stage WTG foundations has not yet been fixed, however, the base case assumes steel monopiles. Transition pieces (TPs) will be used to connect the WTG tower to the foundation by means of a grouted joint or a flanged connection.

Please be advised that the demarcation of the Gwynt y Mor Offshore Wind Farm has been completed. There are 9 navigation buoys installed by the Trinity House Vessel “Galatea”. All coordinates are below. At the same time, Galatea removed the “North Hoyle” North Cardinal Buoy from position 53°26.70’N 003°30.60’W.

1) GYM S  Red Can  Fl R 2.5s   53°24.900’N 003°37.080W
2) GYM SW  Special Mark Fl Y 2.5s   53°25.870’N 003°39.600W
3) GYM W  West Cardinal VQ(9) 10s   53°26.832’N 003°42.129W
4) GYM NW  West Cardinal Q(9) 15s   53°28.303’N 003°40.772W
5) GYM NWW North Cardinal Q   53°29.670’N 003°36.857W
6) GYM N  North Cardinal VQ   53°29.735’N 003°31.710W
7) GYM NE  Special Mark Fl Y 2.5s   53°28.390’N 003°29.340W
8) GYM E  East Cardinal VQ(3) 5s   53°27.130’N 003°27.078W
9) GYM SE  Special Mark Fl Y 2.5s   53°26.015’N 003°32.080W

For further information, please contact: Lee Cornwell, RWE npower renewables, Mob: +44 (0) 7557 319473, Email: lee.cornwell@rwe.com

Burbo Bank Offshore Wind Farm – Maintenance / Survey Activity (Update 15-08-2011)

All of the Turbines at the Burbo Bank Wind Farm are operational and switched over to automatic. Small service vessels will be engaged on routine maintenance within the Wind Farm as and when required.

If anybody requires a copy of the Kingfisher ‘Flyer’ which shows the Wind Farm position, Turbine locations, Export and Infield or Inter-Array cable routes and Cardinal Buoy positions please contact me.

A minimum 50 meter Advisory Safety Exclusion Zone is requested around each Turbine at all times, but all mariners are requested to keep well clear of the Wind Farm Site during any period when they can see that maintenance work is being carried out.

In the interests of safety mariners are requested not to anchor within at least 500 meters of the wind farm perimeter and because there is a danger of exposed power cable on the seabed close to some of the turbine structures fishermen are requested to observe the advisory safety zone of 50 meters around each turbine and the need to exercise extreme caution when operating in the vicinity of any of the wind farm turbines.

If any fishermen are considering setting any pots within the Wind Farm Perimeter they are advised to make sure that their gear is properly marked and weighted and is clear of any of the Turbines. They are advised to lay their gear up and down the lanes rather than across the Inter-Array or Infield Cables and are advised to use weights rather than anchors.

For further information, please contact: Tom Watson, Tel: 01253 875565, Mobile: 07903 173 624

West of Duddon Sands Offshore Wind Farm – Survey Activity (Update 12-08-2011)

The small survey vessel ‘Titan Explorer’ is expected back on-site as soon as weather and conditions improve to complete the near shore and shallow components (<5m water depth) of the Geophysical Survey covering the West of Duddon Sands Wind Farm – Export Cable Route.

For further information, please contact: Tom Watson, Tel: 01253 875565, Mobile: 07903 173624