



Notice to Mariners

AWEL Y MOR OFFSHORE WIND FARM

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Final

AWEL Y MOR OFFSHORE WIND FARM LIMITED



Document Control

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Client Information

Client	AWEL Y MOR OFFSHORE WIND FARM LIMITED
Client Address	Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire, UK, SN5 6PB
Client Contact	Mark Osola

Revision History

Issue	Date	Status	Comments on Content	Prepared By	Checked By	Approved By
00	22 February 2022	For Review	First Issue	LF		
01	22 February 2022	For Review	Updated after Fugro UK review	LF	VDC	
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Project Team

Initials	Name	Role
LF	Lars Fogelin	Project Manager
AB	Arve Berg	Project Director
VDC	Veronique Cochin	Operations Manager

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1. Introduction

Mariners are advised that AWEL Y MOR OFFSHORE WIND FARM LIMITED are planning the deployment of a SeaWatch LiDAR Buoy (SWLB); this is a sea state measurement instrument (referred to as 'the equipment'). The deployment location is within the UK Sector off the North Wales coast at Liverpool Bay as shown in the coordinates below.

The equipment will be deployed within the AWEL Y MOR OFFSHORE wind farm array limits and will be deployed for approximately twelve months from March 2022.

The equipment will be located as close as reasonably practicable to the coordinates as provided within this Notice to Mariners. The estimated deployment date is as follows:

- Deployment 5 of March 2022 or earliest possibility thereafter pending vessel availability and suitable weather.

The equipment is to be deployed by a single vessel. Deployment will take one day on site. Scheduled maintenance is planned in the autumn/winter of 2022, from September onwards. Unforeseen maintenance may also be required.

The mooring design is specific to each SWLB deployment and location. The equipment will be moored through a combination of steel chains, rope and rubber cord to approximately 3000 kg anchor weight at the seabed.

2. Area of Operations

The equipment will be located within the AWEL Y MOR OFFSHORE development site. Coordinates and planned deployment location are provided in Table 2.1 and Figure 2.1.

Table 2.1: SWLB Coordinates

Name	Latitude	Longitude	Depth [m]
SWLB055	53.46252 N	3.86621 W	30

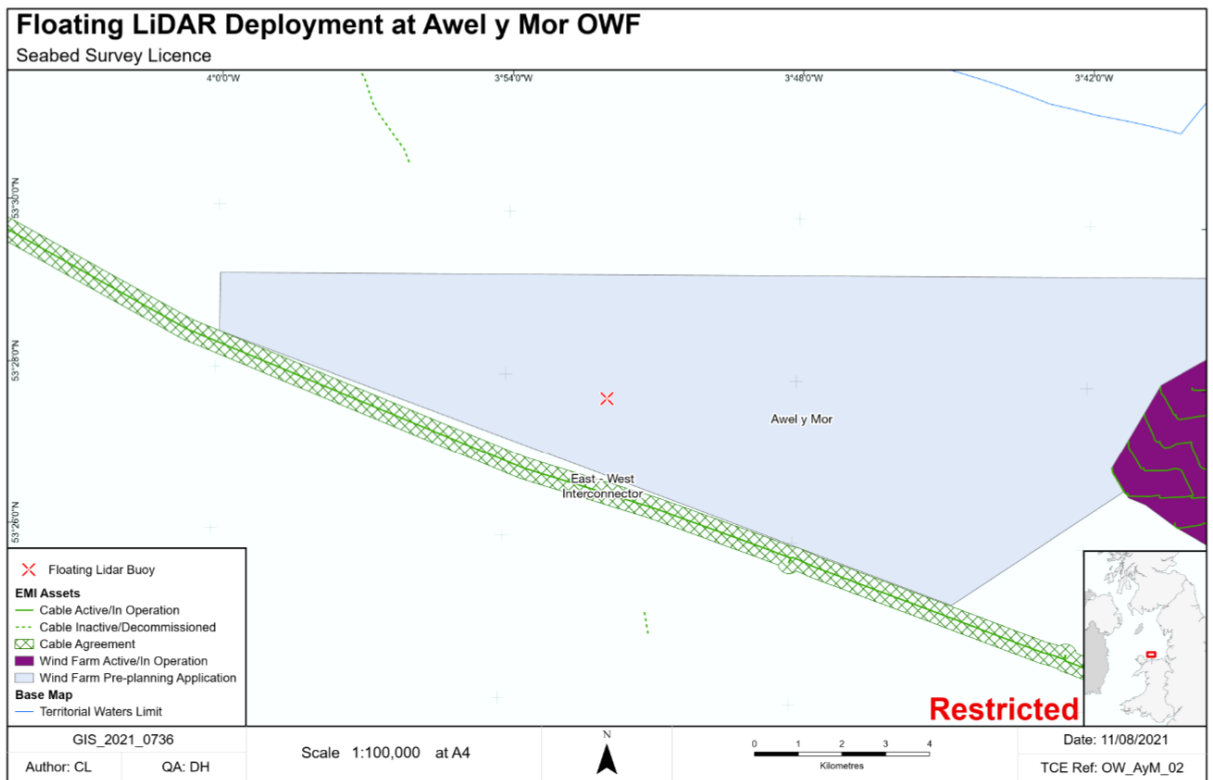


Figure 2.1: SWLB planned deployment location

3. Offshore Metocean Measurements

3.1 The Equipment

The equipment is an integrated Seawatch Wavescan buoy and ZX 300M LiDAR; the purpose of the equipment is to collect oceanographic and meteorological data using a single platform. The equipment is supplied and charged by an onboard power system which uses methanol fuel cells and solar panels to recharge onboard lead acid batteries.

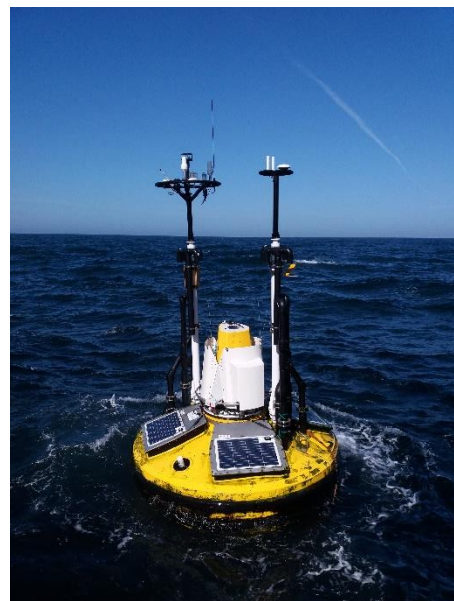
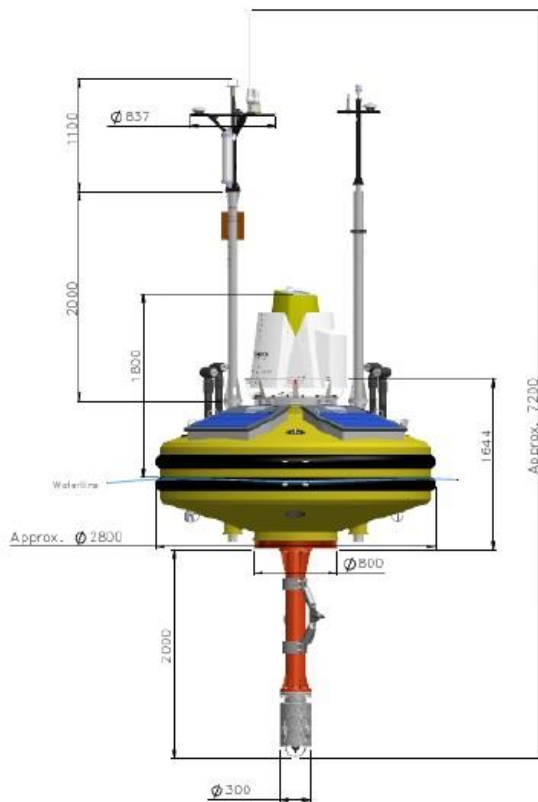


Figure 3.1: Equipment dimensions (left), example deployment (right)

In order to minimise the risk to other sea users, the measures listed below will be adopted for this deployment:

The equipment will be equipped with a F1 (5) Y 20s light with 4-5 nautical mile range; the light will be mounted at the top of one of the masts, approximately 4 m above sea level. The flash sequence for this light is detailed in Table 3.1.

Table 3.1: SWLB light flash sequence

Flash Code	On [s]	Off [s]	On [s]	Off [s]	On [s]	Off [s]	On [s]	Off [s]	On [s]	Off [s]
FL (5) 20 S	0.8	1.2	0.8	1.2	0.8	1.2	0.8	1.2	0.8	11.2

Additional risk reduction measures include the use of passive radar reflectors to make the buoy more visible on vessel radars, Automatic Information Systems (AIS) to broadcast the buoy position to marine AIS platforms, Global Positioning Systems (GPS) position monitoring of the buoy at 30-minute intervals and an independent GPS tracker used for backup position monitoring of the equipment in the event of primary GPS failure.

Table 3.2: AIS MMSI number

MMSI number	992351372
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The equipment will be moored using a single point mooring. The mooring design will allow for free movement of the buoy over a radius that is max 140 meters. The anchor weight used to moor the equipment will be approximately 3000 kg weight in water and comprised of large diameter scrap chain.

It should be noted that some elements of the mooring will float just below the sea surface. To avoid the risk of entanglement, vessels should allow a minimum 200 m clearance from the surface buoy.

3.2 Deployment Details

Please be advised that Fugro are performing the deployment operations with a suitable vessel as outlined in Section 5.

The deployment vessel will be restricted in its ability to manoeuvre both during the tow of the equipment to the deployment site and while deployment operations are ongoing. It is requested that all vessels operating within the area keep a safe distance (200 m) and pass at minimum speed to reduce vessel wash.

Operations will be conducted on a 24-hour basis. Throughout operations the vessels will be displaying the shapes and lights prescribed in the International Rules for the Prevention of collisions at Sea (COLREGS) Rule 27. Displaying the prescribed shapes and lights when the vessel is restricted in its ability to manoeuvre.

3.3 Safety

It is requested that anybody having knowledge of any potential objects submerged or moored on the seabed close to the deployment zone, that could be damaged or form a hazard to the vessel and its equipment advises the Project's Fishing Industry Liaison Officer of their position and nature. When operations commence, a listening watch will be maintained

on VHF Channel 12 and 16 when within the appropriate port authority area. The vessel and the equipment will also actively transmit an AIS signal.

4. Immediate Contacts

The contents of this notice are based upon our current understanding of AWEL Y MOR OFFSHORE development site requirements.

Enquiries regarding the contents of this Notice to Mariners or any other matters should be directed to the persons outlined in Table 4.1

Table 4.1: Contact persons

Role	Name	Contact Details
Fugro Project Manager	Lars Fogelin	+47 9241 0056 l.fogelin@fugro.com
Fugro Project Director	Arve Berg	+47 9139 4172 a.berg@fugro.com
Operations Manager Fugro GB Marine Ltd	Veronique Cochin	+44 7557 152682 v.cochin@fugro.com
Project delivery Manager Fugro GB Marine Ltd	Richard Liptrot	+44 7917 188732 r.liptrot@fugro.com

5. Survey Vessels

Pending availability, the vessel outlined below is currently the option for the deployment of the equipment. If the vessel is not available, an alternative will be sourced and an updated NtM issued.

Table 5.1: Vessel details Forth Joustler

Vessel	Forth Joustler
Vessel type	Multicat
Operator	Briggs Marine Contractors LTD
Call sign	2BME4
IMO	9513828



6. Distribution List

This NtM has been distributed to the following parties

6.1: Maritime and Authorities

Organisation	Address	Phone	E-mail	Role
UK Hydrographic Office	Admiralty Way Taunton Somerset TA1 2DN	+44 (0) 1823 337 900	navwarnings@ukho.gov.uk sdr@ukho.gov.uk	Radio Navigation Warnings H-Notes
Holyhead Coastguard Operations Centre	HM Coastguard Prince of wales Road Holyhead Anglesey LL65 1ET	+44 (0) 1407 762 051	holyhead.coastguard@mcga.gov.uk	Holyhead MRCC
UK Maritime and Coastguard Agency	Spring Place 105 Commercial Road Southampton Hampshire SO15 1EG	+44 (0) 23 8032 9486	navigationsafety@mcga.gov.uk	UK Coastguard
MCA: Liverpool Marine & Fishing Survey Office	Hall Road West Crosby Liverpool Merseyside L23 8SY	+44 (0) 20390 85110	liverpoolmo@mcga.gov.uk	Liverpool marine and fishing survey office
Trinity House Lighthouse Service	Tower Hill London EC3N 4DH	+44 (0) 20 7481 6900	navigation.directorate@thls.org	England/Wales lights, marks and buoys
Marine Management Organisation (Preston)	Lutra House Dodd Way Walton Summit Preston PR5 8BX	+44 (0) 208 026 5643	preston@marinemanagement.org.uk	Preston MMO Office
The Crown Estate	1 St James's Market London SW1Y 4AH	+44 (0) 207 851 5000	Consents@thecrownestate.co.uk	Consents
Natural Resources Wales	Marine Licensing Officer 2 Evidence, Policy and Permitting Directorate	+44 (0) 300 065 4513	Marinelicensing@naturalresourceswales.gov.uk	Marine Licencing

Organisation	Address	Phone	E-mail	Role
	Natural Resources Wales			
Gwynt y Môr Offshore Wind Farm	Gwynt y Mor Offshore Wind Farm Ltd Port of Mostyn Coast Road Mostyn Flintshire CH8 9HE	+44 (0) 845 070 5500	gym.mcc@rwe.com	Marine Coordinator

6.2: Fishing Industry

Organisation	Address	Phone	E-mail	Role
National Federation of Fisherman's Organisations	30 Monkgate York YO31 7PF	+44 (0) 1904 635 430	nffo@nffo.org.uk	Fishing Industry Representatives
Sea Fish industry Authority	Origin Way Europarc Grimsby NE Lincs	+44 (0) 1472 252 300	kingfisher@seafish.co.uk	Fishing industry Notice / Publication Kingfisher Information Service

6.3: Client Group

Organisation	Address	Phone	E-mail	Role
AyM Offshore Wind Farm Limited	Awel y Môr Offshore Wind Farm Limited, Windmill Hill Business Park, Whitehill Way, Swindon, Wiltshire SN5 6PB	+44 (0) 7557 758 149	mark.osola@rwe.com	Client: Mark Osola

6.4: Contractor Group

Organisation	Address	Phone	E-mail	Role
Fugro Norway AS	Pirsenteret, Havnegata 9, P.O.Box 1224 Torgard, 7462 Trondheim, Norway	+47 924 10 056	l.fogelin@fugro.com	Project Manager
Fugro GB Marine Limited	Fugro House, Hithercroft Road, Wallingford,	+44 (0) 1491 820 558	r.liptrot@fugro.com	Project Delivery Manager

Organisation	Address	Phone	E-mail	Role
	Oxfordshire, OX10 9RB			
Briggs Marine Contractors Limited	West Brocklebank Dock Bootle Liverpool L20 1DE	+44 (0) 7809 338 902	RBegley@briggsmarine.com	Vessel operator