




NOTICE TO MARINERS

Muir Mhòr Offshore Wind Farm

Floating LiDAR and Metocean Survey Deployment

 <p>A joint venture between Fred. Olsen Seawind & Vattenfall</p>	MUIR MHÒR	Revision: 01
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	Muir Mhòr Offshore Wind Farm Floating LiDAR and Metocean Survey Deployment	Date: 2022-12-05
	Doc No.: PENDING	Confidential Level: UNRESTRICTED

Revision No.	Date	Reason for Issue	Author	Reviewer	Approver
01	2022-12-05	First Issue	A Entwisle	A Hynd	M Barham

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SUMMARY

Metocean instrumentation and a floating LiDAR system (FLS) are planned for deployment within the boundary of the proposed Muir Mhòr Offshore Wind Farm Project site in the North Sea. All instrumentation is planned for deployment by Green Rebel from the Port of Aberdeen to the Muir Mhòr Project site in December 2022. Deployment vessel information will be included in a subsequent update to this notice.

CONTACTS

- Green Rebel: Tom Murphy tom.murphy@greenrebel.ie +353 (0)87 628 3026
- Muir Mhor Offshore Wind Farm: Mark Barham mark.barham@vattenfall.com +44 7814 939421
- Fisheries Liaison: Jason Schofield jason@greenmarineuk.com +44 1856 851966

DESCRIPTION

All instrumentation will be deployed at a single deployment location within the project site. The purpose of the instrumentation is to gather Metocean and wind data to inform the proposed Muir Mhor Offshore Wind Farm Project.


The FLS mooring comprises of a surface visible buoy moored to the seabed through a combination of rope and chain via two mooring points. Two guard buoys will be located at a distance of 40m from the main FLS buoy in a North/South orientation, with the mooring spread covering a 315m radius. There is also a seabed frame for current measurements contained within the overall deployment footprint.

The FLS light characteristics are Fl (5) Y 20s with 5nm range. The guard buoys' light characteristics are Fl Y 5s with 3nm range and include a yellow St. Andrew's Cross topmark. The FLS will be designated as "Muir Mhor Floating Lidar" on AIS, with MMSI number 992351400.

Details of the surface visible buoy, guard buoys, seabed frame and mooring arrangement are provided in Appendix A.

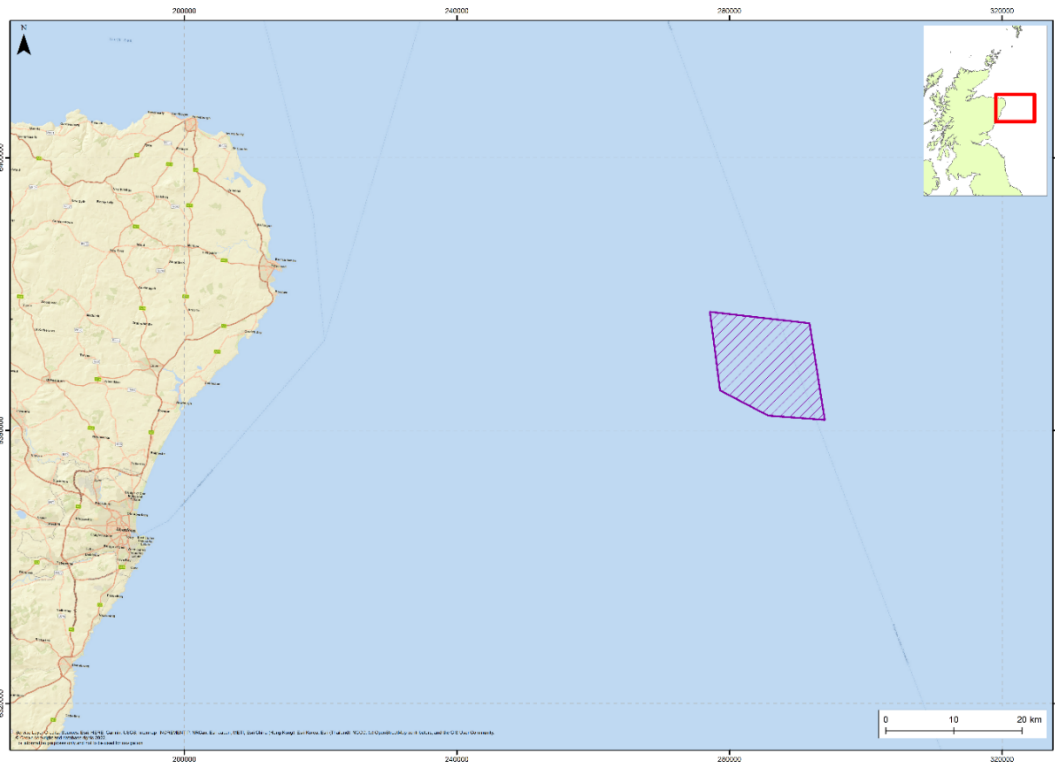
PLANNED PROGRAMME OF WORKS

Initial Deployment: After 16 Dec 2022
Maintenance visits: May 2023
Oct 2023
May 2024
Oct 2024
Removal from site: 01 Mar 2025 (estimated)
Note, all dates are weather dependent.

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AREA OF OPERATIONS


The FLS will be deployed within the Muir Mhòr Offshore Wind Farm Project site:



Equipment deployment locations are as follows:

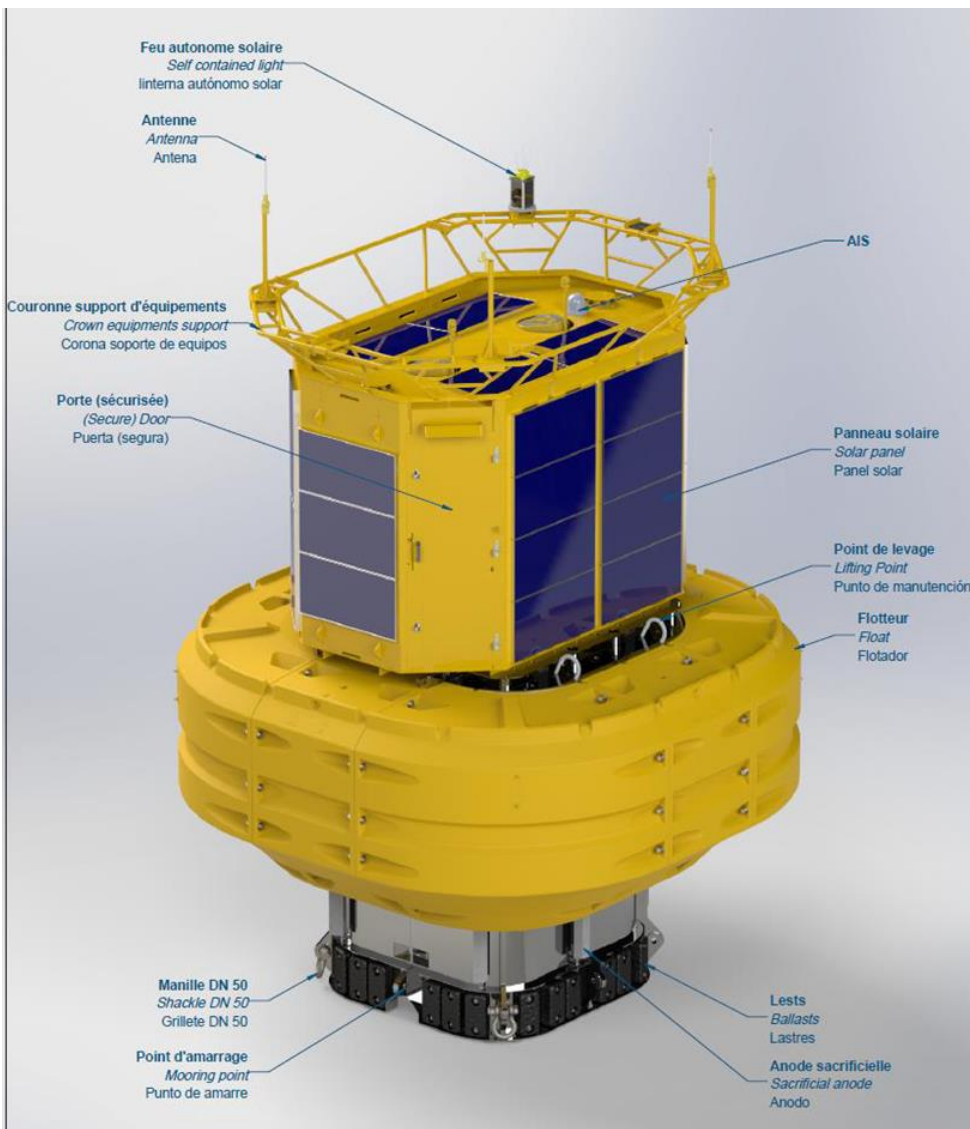
Equipment	Latitude (WGS84)	Longitude (WGS84)
Metocean/FLiDAR Buoy Location	57.418668N	0.569758W
Anchor North	57.42162531N	0.569559522W
Guard Buoy North	57.41902262N	0.569732051W
Anchor South	57.41570194N	0.569952132W
Guard Buoy South	57.41830463N	0.56977964W


MARINE USERS are requested to maintain a safe clearance distance of 500m.

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APPENDIX A

LIDAR BUOY



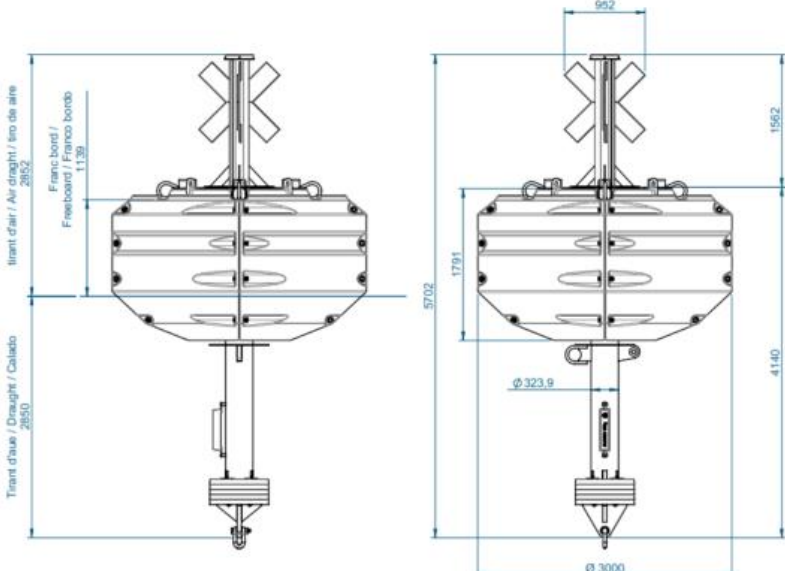
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GUARD BUOY



river and sea equipment


JET 9000 QI
Marque spéciale / Special mark / Marca especial



Spécifications générales General Specifications Especificaciones generales			Spécifications matière Material specifications Especificaciones del material		
Masse Weight Masa	Kg	2006	Structure Structure Estructura	Acier-S235(S355) Galvanisé à chaud Hot dip galvanized S235(S355) steel Acero S235(S355) galvanizado en caliente	
Surface Visible Visible Area Superficie visible	m²	4.5	Flotteur Float Flotador	Polyéthylène moyenne densité Polyethylene medium density Poliétileno media densidad	
Flottabilité Submergence Flotabilidad	Kg	9275	Mât Mast Mástil	Aluminium 5083/5086 qualité marine Aluminium 5083/5086 marine grade Aluminio 5083/5086 de grado marino	
			Lest Ballast Lastre	Fonte grise Cast iron Hierro fundido gris	


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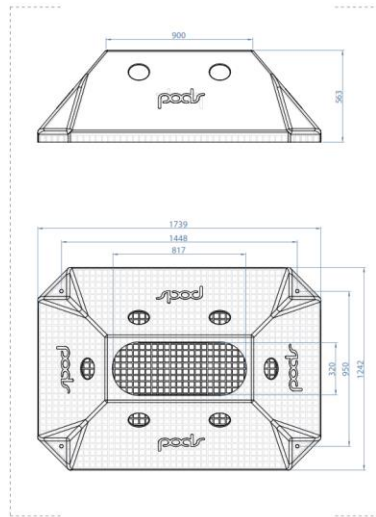
par Bruno Ricard REF ED
 rev: 0 IT10 04
 n°: 1/1 02/12/022

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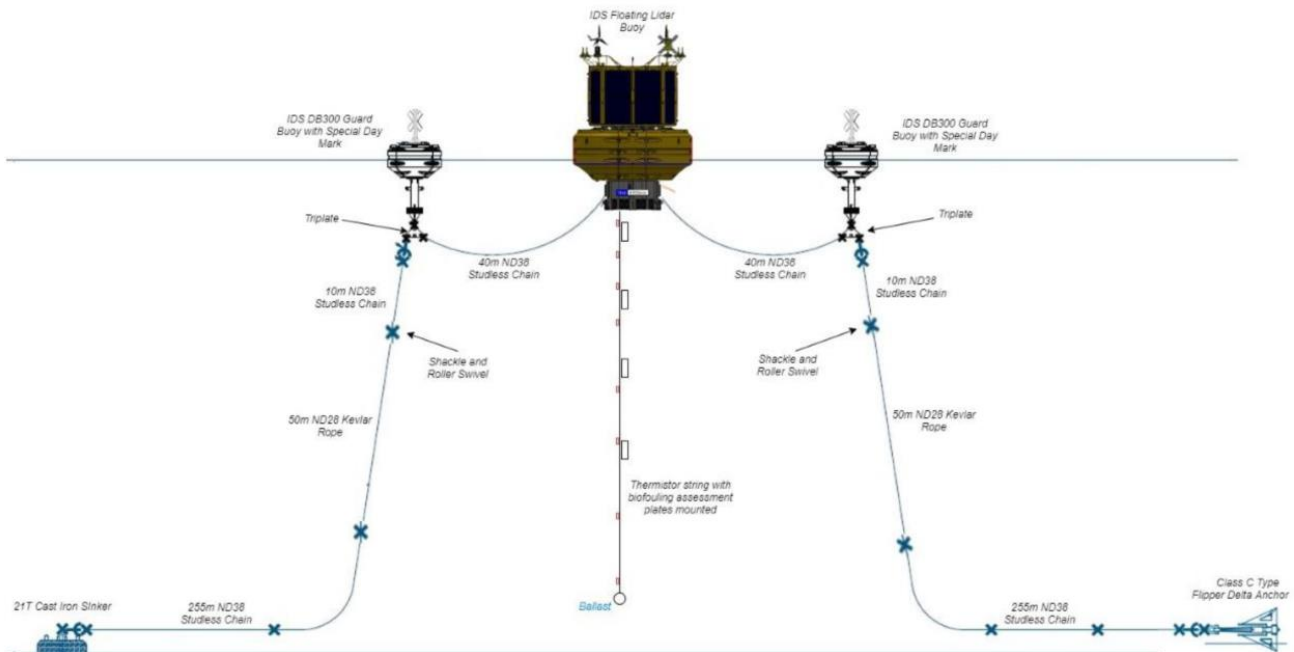
SEABED FRAME

SEABED PLATFORM LONGBASE

The PODS Seabed Platform has been designed to offer a more economical and practical product than is currently available in the marketplace, with specific focus on reducing operational time, cost and risk. Primarily created to accommodate Acoustic Doppler (directional current and wave) devices, its flexible arrangement can facilitate a diverse range of seabed monitoring applications.



SYSTEM GENERAL ARRANGEMENT



END