Notice to Mariners

Blyth Met Mast FLiDAR Validation

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Final

Document Control

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Client Information

Client	Fugro Texas
Client Address	6100 Hillcroft Ave, Houston, TX 77081, USA
Client Contact	James Ranson

Revision History

Revision	Date	Status	Comments on Content	Prepared By	Checked By	Approved By
00	14 July 2022	For Review	Mobilisation	EAS	RJL	RJL

Project Team

Initials	Name	Role
EAS	Edward Sadler	Project Manager
RJL	Richard Liptrot	Project Delivery Manager

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1. Introduction

Fugro GM Marine Limited (Fugro) is to carry out deployment of one floating LiDAR buoy at the NOAH mast offshore Blyth.

The deployment of the equipment is planned for as close to the 22nd July as practicable and equipment will remain on site for an estimated duration of 30 days. Deployment operations are expected to take one day.

Operations will be conducted with the Tees Guardian and will involve towing the equipment from the Port of Blyth to the deployment site.

2. Area of Operations

The equipment will be located at the Blyth NOAH offshore Met Mast validation site and the provisional position of the buoys are shown in Table 1.

An updated NtM will be issued in due course with the as deployed positions of the buoys.

Table 1: FLiDAR Buoy Planned Deployment Coordinates

	(Decimal Degrees) WGS 84		Depth (m)
	Latitude (DD)	Longitude (DD)	
1	55.147734N	-1.420697E	40m

An updated NtM will be issued in due course with the as deployed positions of the buoys.

The proposed location of the buoy is shown in Figure 1.

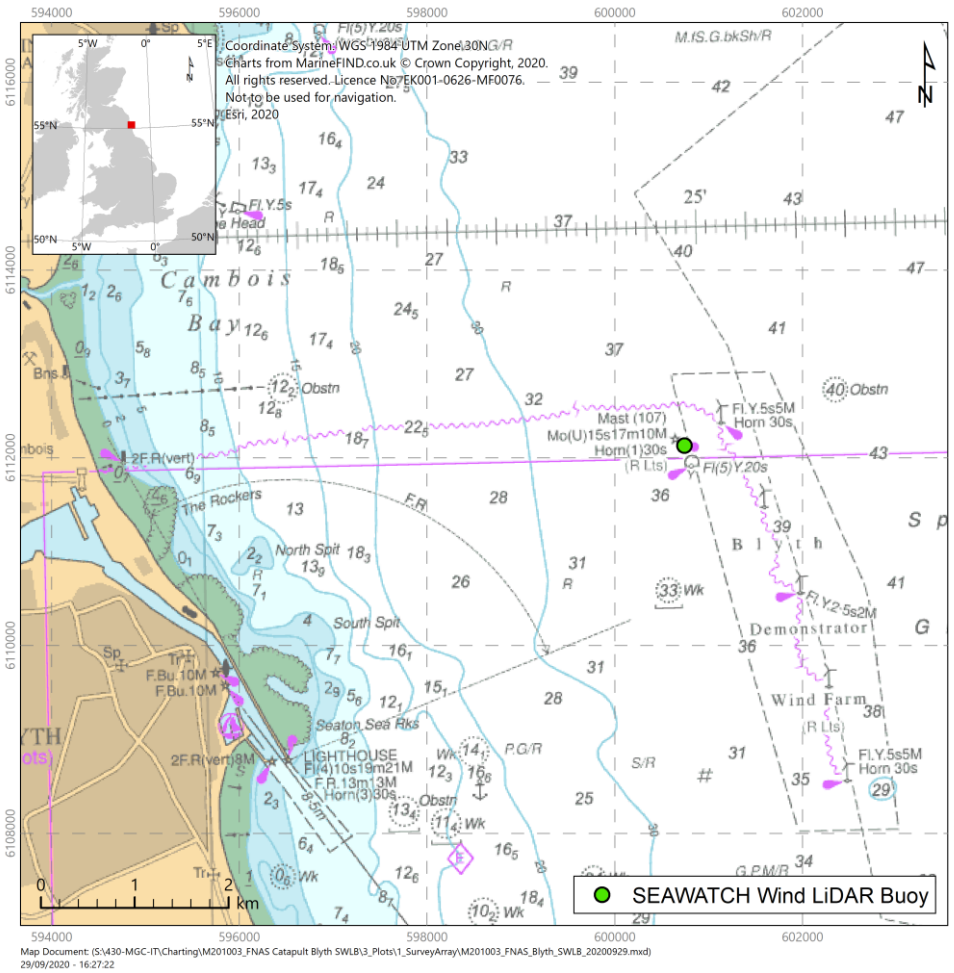

Figure 1: Planned Positions of FLiDAR Buoy at Blyth NOAH Site

3. Offshore Measurements

3.1 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.

The equipment is equipped with a F1 (5) Y 20 s light with 4-5 nautical mile range; the light is 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 2.

Table 2: FLiDAR Buoy Flash Sequence

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

The equipment dimensions and example image are shown in Figure 2.

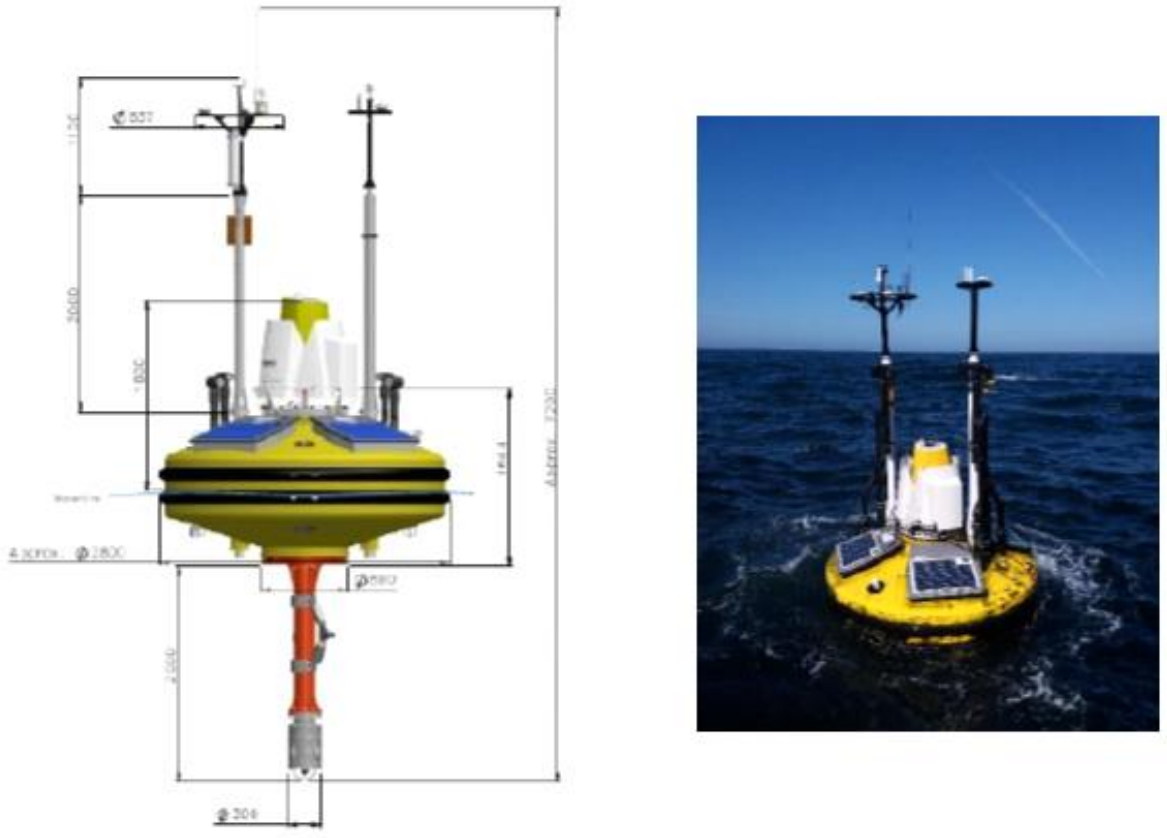

Figure 2: FLiDAR Buoy Dimensions and Appearance

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.

The equipment is moored using a single point mooring. The mooring design allows for free movement of the buoy over a radius that is approximately equal to the water depth. The anchor weight used to moor the equipment is approximately 2250 kg weight and comprised of large diameter scrap chain.

It should be noted that some elements of the mooring 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 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 persons listed in the Immediate Contacts Table of their position and nature.

4. Immediate Contacts

Enquiries regarding the contents of this Notice to Mariners or any other matters should be directed to the persons outlined in Table 3.

Table 3: Contact Persons

Role	Name	Contact Details
Fugro Project Manager	Edward Sadler	+44 7767 614 552 e.sadler@fugro.com
Fugro Project Manager	Arve Berg	+47 73 54 5200 a.berg@fugro.com
Offshore Renewable Energy Catapult Contact	Stephen Robertson	+44 7872 836 180 stephen.robertson@ore.catapult.org.uk
Offshore Renewable Energy Catapult Contact	Jonathan Hughes	+44 7872 502 246 jonathan.hughes@ore.catapult.org.uk

5. Vessel – Tees Guardian

Operations will be undertaken by the Tees Guardian.

Tees Guardian vessel details are shown in Table 4.

Table 4: Vessel – Tees Guardian Details

General Information	
Name	Tees Guardian
Flag	UK
Call Sign	2IJH2
Class	BV
Dimensions	
Length	23.80m
Beam	9.60m
Draught (loaded)	2.25m
Gross Tonnage	143T
Communication	
Vessel Phone	+ 44 7834 740123
Email:	Tees.Guardian@pdports.co.uk

6. Distribution List

This Notice to Mariners has been distributed to the authorities, companies, and individuals shown in Table 5.

Table 5: Distribution List

	E-mail
	kingfisher@seafish.co.uk
	nmoccontroller@hmcg.gov.uk
	marine.consents@marinemanagement.org.uk
	northshields@marinemanagement.org.uk
	jonathan.hughes@ore.catapult.org.uk
	marine@portofblyth.co.uk
	nifca@nifca.gov.uk
	navwarnings@ukho.gov.uk
	j.ranson@fugro.com