



Notice to Mariners – Hornsea Project Two

Notice of Substation Topsides Installation – Completion of OSS & RCS topside installation 23/11/21

1. SUMMARY OF OPERATIONS

Activity update:	Offshore Substation (OSS) & Reactive Compensation Station (RCS) Aids to Navigation commissioned
General activity:	Installation of OSS & RCS topsides
Location:	Hornsea Project Two area (as shown in Figure 2)
Contractor:	Heerema Marine Contractors (HMC)
Updated vessels:	n/a
Notes:	The works will be carried out alongside ongoing survey and construction activities for Hornsea Project Two in both the array and export cable corridor.

Mariners are advised that MaxSea and Olex plotter files of the proposed works area can be provided by the Project's Commercial Fisheries Advisors at Brown and May Marine Limited and the Project's onshore fisheries liaison. Contact details are provided in Section 5 of this Notice.

2. HAZARDS & SAFETY

Mariners are advised that the operational aids to navigation of the topsides are now operational. The OSS exhibits **Aviation Search and Rescue (SAR) Lighting (one 200 Candela red light) and the RCS exhibits a Main Light – Mo 'U' 15s (15nm) and Subsidiary Lights – Mo 'U' R 15s (3nm)**, aviation safety lighting with 25 candela omnidirectional lighting (or infrared lighting) with an optimised flash pattern of 60 flashes per minute, with flash duration of between 200-500ms, green heli-hoist lights and is audibly marked with a sound (fog) signal (Horn Mo (U) 30s).

Note that the vessels will have limited manoeuvrability and it is requested that all vessels operating near the vessels, maintain a safe distance (at least 500m) and pass all vessels at minimum speed. Rolling' 500m Safety Zones (SZs) will be in place around each wind farm structure when a construction vessel **is** present. When a construction vessel **is not** present, 50m SZs are in place around any wind farm structure that is either partially constructed but not yet commissioned. It is requested that anybody having knowledge of any potential objects submerged or moored on the seabed within the works area that could be damaged or form a hazard to the vessel and its equipment advises the Project's Fishing Industry Liaison of their position and nature. The Project has also requested the clearance of static fishing gear within the boundary shown in Figure 1 and described in Section 6 of this Notice. A listening watch will be maintained on VHF Channel 12 and 16 when within the appropriate port authority area and will actively transmit an AIS signal.

Figure 1. Fisheries Clearance Area

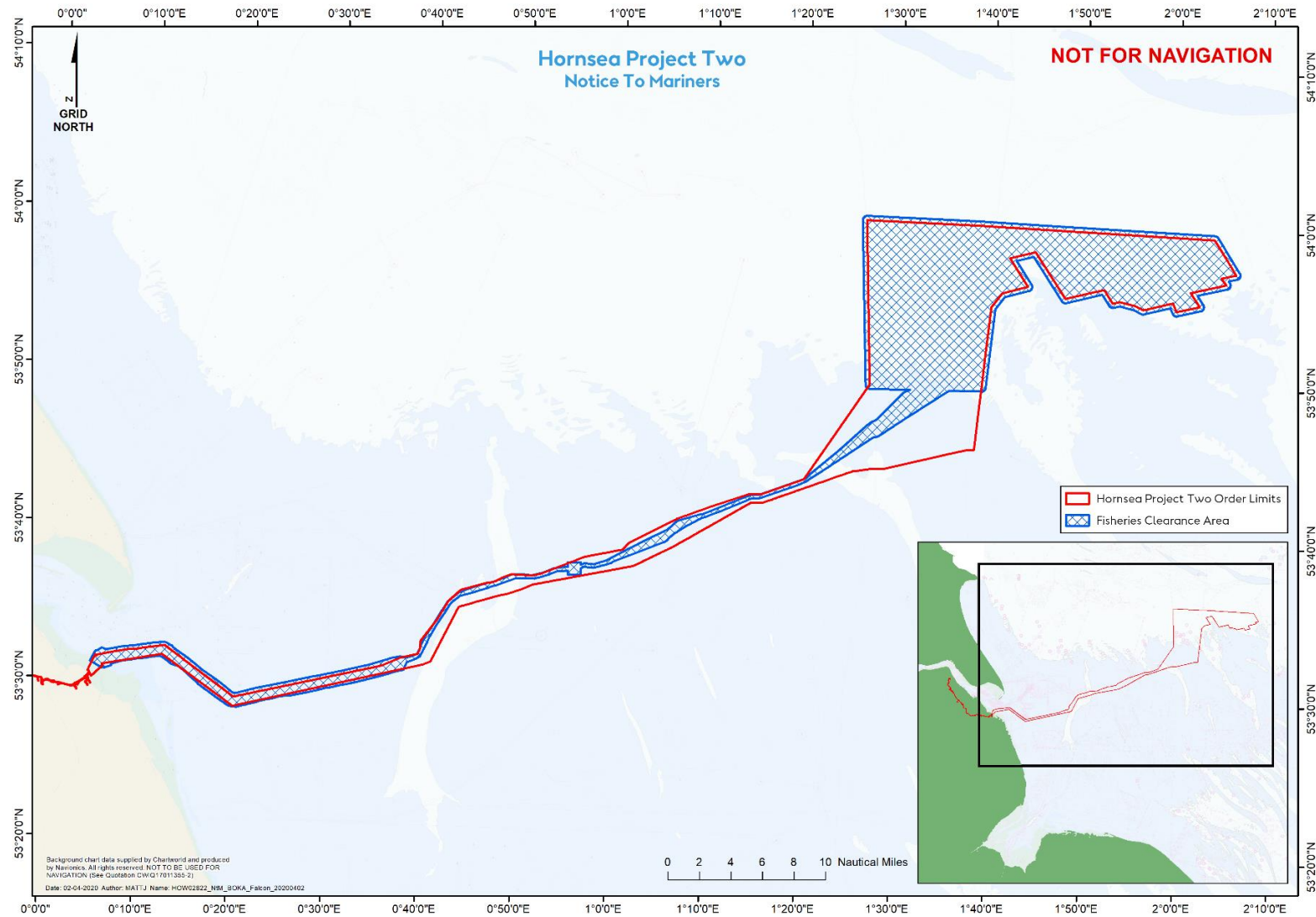
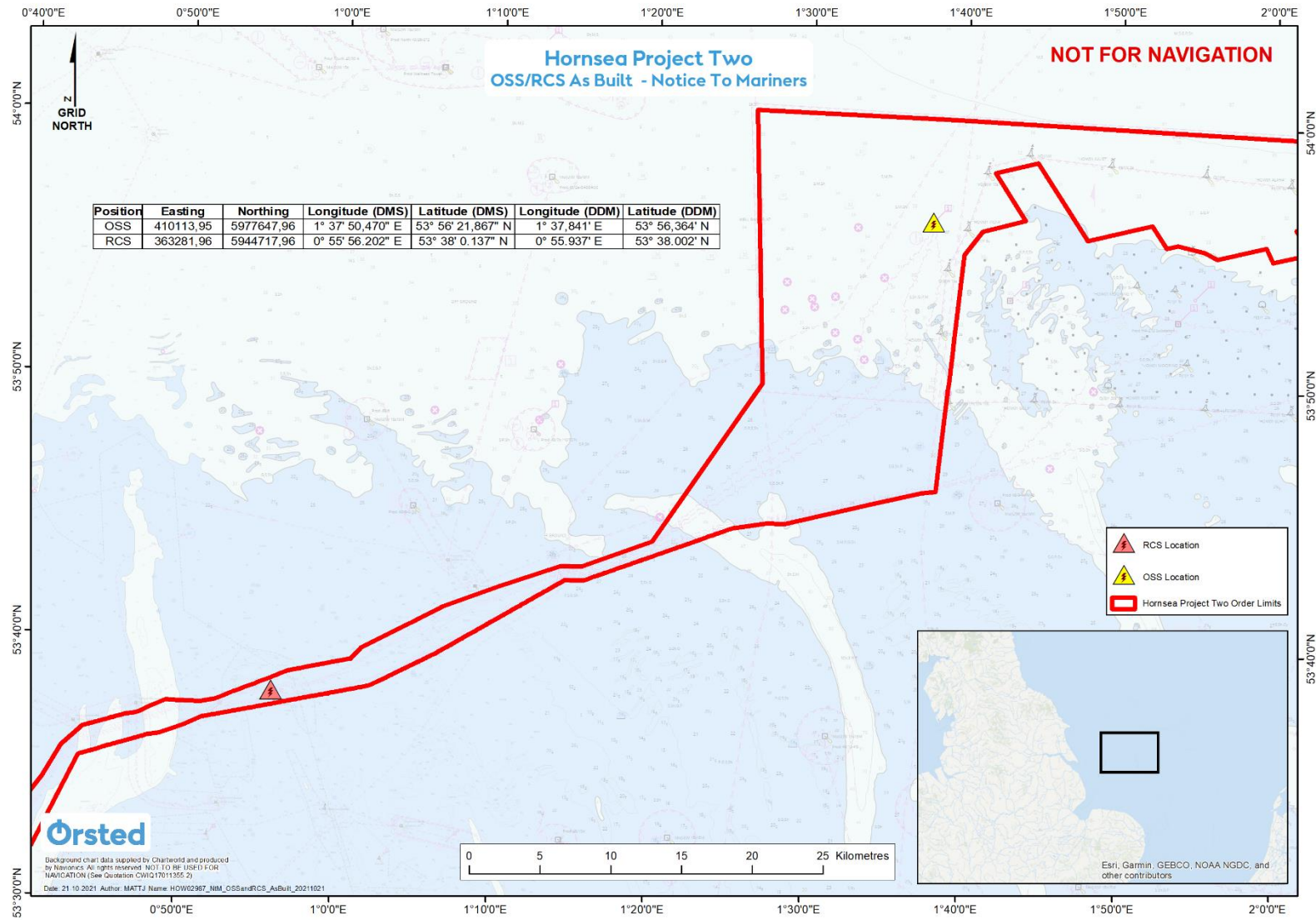


Figure 2. OSS & RCS installed locations



3. IMMEDIATE CONTACTS

The contents of this notice are based upon our current understanding of Project Two requirements. A further notice will be issued once activities are completed.

Enquiries regarding the contents of this Notice to Mariners or any other matters should be directed to:

Project Manager (Ørsted) (Office hours only)	Garry Blowers	
	Tel: +44 77 6 9147710	E-mail: GARBL@orsted.com
Project Manager (Heerema Marine Contractors) (Office hours only)	John Bouwman	
	Tel: +31 620 59 6856	E-mail: jbouwman@hmc-heerema.com

4. FISHERIES LIAISON

Onshore Fisheries Liaison is provided by Nick Garside and Sophie Farenden who can be contacted on:

E-mail: nick.garside@live.co.uk	Mob: +44 (0) 7538 827013
Email: sophie.farenden@brownmay.com	Mob: +44 (0)7525 128344





An Offshore Fisheries Liaison Officer is onboard the Emswind Guard Vessel and Boka Falcon, contactable on VHF channel 16, if required. Please refer to the Hornsea Two Project Environmental Monitoring and Management Plan (PEMMP) (Ørsted Doc. Ref.: 00464250) for further details of personnel roles and responsibilities involved in the project.

In the event the Offshore or Onshore Fisheries Liaison is not contactable please direct fisheries enquiries related to the works to the Ørsted Company Fisheries Liaison Officer:

Company Fisheries Liaison Officer – Courtney French	Tel: +44 (0)7796 447372	E-mail: CONFR@orsted.com
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5. VESSELS

Operations will be conducted by a number of vessels as provided below. Additional vessels may mobilise to site as required. Contact can be made directly with the vessels, where necessary, using the contact details listed below. This Notice will be updated with further contact details once confirmed. Client and contractor contact details are provided in Section 3 and 4 of this NtM.

Vessel Name / Image	Vessel Type / Function	Vessel Tel.	Vessel E-mail	Call Sign	MMSI
<p>Sleipnir</p> 	Installation Vessel	Master: +870 437 48 8710	bridge@sleipnir.hmc-herema.com	3FER4	374887000
<p>Hua Hai Long</p> 	Heavy Transport Vessel (HTV)	+86-136-0976-4037 +86-021-66938978 00870-773-120320	huahailong@gzsalvage.cn	BSNK	412036000
<p>Kolga</p> 	Anchor Handling Tug	Master: +881623457688	Bridge@kolga.hmc-herema.com	PCTR	244790079
<p>Boskalis Princess</p> 	HTV Tow tug	Mobile: +31 6 270 728 37 Bridge: +47 236 704 41	princessbridge@boskalis.com	ORQU	205642000

6. COORDINATES

Shown in Figure 2 – Substation locations

Position	Longitude (DMS)	Latitude (DMS)	Longitude (DDM)	Latitude (DDM)
OSS	1° 37' 50.470" E	53° 56' 21.867" N	1° 37.841' E	53° 56.364' N
RCS	0° 55' 56.202" E	53° 38' 0.137" N	0° 55.937' E	53° 38.002' N

Shown in Figure 1 – Fisheries Clearance Area

Latitude (WGS84)	Longitude (WGS84)	Latitude (WGS84)	Longitude (WGS84)
53° 59' 47,212" N	2° 4' 13,879" E	53° 31' 48,148" N	0° 5' 14,392" E
53° 57' 33,751" N	2° 6' 35,650" E	53° 32' 0,611" N	0° 5' 54,673" E
53° 57' 15,701" N	2° 6' 36,035" E	53° 31' 55,416" N	0° 6' 23,153" E
53° 57' 6,478" N	2° 6' 18,896" E	53° 32' 11,157" N	0° 8' 27,502" E
53° 56' 59,777" N	2° 5' 28,497" E	53° 32' 31,751" N	0° 12' 37,383" E
53° 56' 42,915" N	2° 5' 36,351" E	53° 32' 19,716" N	0° 13' 26,968" E
53° 56' 28,883" N	2° 5' 17,519" E	53° 32' 8,099" N	0° 13' 44,182" E
53° 56' 3,483" N	2° 2' 8,588" E	53° 29' 28,003" N	0° 20' 8,972" E
53° 55' 27,479" N	2° 2' 46,083" E	53° 31' 7,268" N	0° 31' 29,653" E
53° 55' 15,410" N	2° 2' 44,720" E	53° 31' 33,595" N	0° 34' 20,769" E
53° 55' 6,438" N	2° 2' 32,255" E	53° 32' 0,629" N	0° 36' 36,759" E
53° 54' 43,304" N	1° 59' 50,397" E	53° 32' 9,093" N	0° 37' 40,901" E
53° 54' 49,180" N	1° 59' 21,898" E	53° 32' 4,863" N	0° 38' 20,144" E
53° 55' 12,752" N	1° 59' 2,060" E	53° 32' 20,102" N	0° 39' 23,807" E
53° 54' 48,758" N	1° 56' 10,242" E	53° 33' 35,071" N	0° 40' 20,327" E
53° 55' 4,977" N	1° 55' 8,846" E	53° 35' 40,809" N	0° 42' 26,986" E
53° 55' 17,637" N	1° 53' 38,207" E	53° 36' 18,396" N	0° 43' 39,237" E
53° 55' 12,551" N	1° 52' 45,906" E	53° 36' 44,069" N	0° 45' 23,338" E
53° 55' 19,225" N	1° 52' 28,565" E	53° 37' 7,109" N	0° 47' 34,987" E
53° 56' 0,723" N	1° 51' 42,606" E	53° 37' 33,029" N	0° 49' 10,746" E
53° 55' 28,077" N	1° 47' 37,142" E	53° 37' 33,513" N	0° 51' 28,386" E
53° 55' 35,546" N	1° 47' 20,574" E	53° 38' 2,090" N	0° 53' 44,466" E
53° 58' 20,012" N	1° 44' 17,211" E	53° 38' 9,119" N	0° 55' 9,396" E
53° 58' 5,598" N	1° 42' 39,466" E	53° 38' 26,805" N	0° 55' 12,814" E
53° 56' 39,567" N	1° 44' 13,897" E	53° 38' 28,306" N	0° 56' 36,030" E
53° 56' 25,332" N	1° 44' 17,657" E	53° 38' 20,125" N	0° 56' 41,437" E
53° 56' 11,448" N	1° 43' 56,913" E	53° 38' 24,187" N	0° 57' 1,622" E
53° 55' 46,244" N	1° 41' 19,719" E	53° 38' 21,625" N	0° 57' 55,787" E
53° 55' 1,973" N	1° 40' 23,796" E	53° 38' 37,874" N	0° 59' 18,954" E
53° 50' 2,447" N	1° 39' 30,939" E	53° 40' 39,445" N	1° 5' 39,744" E
53° 49' 49,003" N	1° 39' 16,731" E	53° 41' 15,927" N	1° 6' 49,625" E
53° 49' 46,428" N	1° 35' 32,259" E	53° 41' 48,180" N	1° 9' 45,281" E
53° 46' 48,702" N	1° 28' 4,620" E	53° 43' 0,796" N	1° 14' 34,354" E
53° 46' 42,946" N	1° 27' 31,338" E	53° 43' 3,158" N	1° 15' 27,373" E
53° 43' 49,843" N	1° 20' 24,581" E	53° 44' 5,955" N	1° 20' 8,767" E

Latitude (WGS84)	Longitude (WGS84)	Latitude (WGS84)	Longitude (WGS84)
53° 42' 44,084" N	1° 15' 38,529" E	53° 45' 51,124" N	1° 23' 36,801" E
53° 42' 41,344" N	1° 14' 42,628" E	53° 47' 35,307" N	1° 26' 46,815" E
53° 41' 21,520" N	1° 9' 20,997" E	53° 47' 58,031" N	1° 27' 46,976" E
53° 40' 22,700" N	1° 6' 37,474" E	53° 49' 40,483" N	1° 30' 32,038" E
53° 39' 47,066" N	1° 5' 28,175" E	53° 49' 47,250" N	1° 30' 53,561" E
53° 38' 16,403" N	0° 59' 25,479" E	53° 49' 47,882" N	1° 26' 56,955" E
53° 38' 2,077" N	0° 57' 59,391" E	53° 49' 52,264" N	1° 26' 39,020" E
53° 38' 4,166" N	0° 56' 57,224" E	53° 50' 2,497" N	1° 26' 28,120" E
53° 37' 58,937" N	0° 56' 42,467" E	54° 0' 31,528" N	1° 25' 47,038" E
53° 37' 33,594" N	0° 56' 40,248" E	54° 0' 42,580" N	1° 25' 52,784" E
53° 37' 31,948" N	0° 55' 15,847" E	54° 0' 49,685" N	1° 26' 7,903" E
53° 37' 47,540" N	0° 55' 10,458" E	54° 0' 37,879" N	1° 38' 38,420" E
53° 37' 44,942" N	0° 54' 9,203" E	53° 59' 56,311" N	2° 3' 47,577" E
53° 37' 14,693" N	0° 51' 46,505" E	53° 59' 47,212" N	2° 4' 13,879" E
53° 37' 14,455" N	0° 49' 47,661" E		
53° 36' 44,170" N	0° 47' 39,734" E		
53° 36' 0,540" N	0° 43' 53,312" E		
53° 35' 29,375" N	0° 42' 55,137" E		
53° 33' 22,426" N	0° 40' 48,516" E		
53° 32' 7,546" N	0° 39' 51,893" E		
53° 31' 43,170" N	0° 38' 30,952" E		
53° 31' 12,017" N	0° 38' 4,665" E		
53° 30' 18,230" N	0° 32' 55,750" E		
53° 29' 22,551" N	0° 26' 30,856" E		
53° 29' 12,115" N	0° 24' 45,142" E		
53° 28' 29,570" N	0° 20' 21,581" E		
53° 28' 37,086" N	0° 19' 22,247" E		
53° 29' 50,796" N	0° 16' 18,425" E		
53° 30' 54,775" N	0° 14' 10,391" E		
53° 31' 2,707" N	0° 13' 24,903" E		
53° 31' 31,865" N	0° 12' 8,960" E		
53° 31' 8,839" N	0° 8' 14,664" E		
53° 30' 56,336" N	0° 7' 6,528" E		
53° 30' 48,777" N	0° 7' 1,728" E		
53° 30' 39,121" N	0° 6' 17,311" E		
53° 30' 39,405" N	0° 5' 52,891" E		
53° 31' 5,230" N	0° 4' 40,609" E		