

## Geophysical and UXO Survey UK Southern Dogger Bank (Rev 05) - 2020-09-02

MMT, a Swedish company, is currently surveying in UK Dogger Bank, UK exclusive economic zone (EEZ). The survey covers the Dogger Bank A and Dogger Bank B project areas, and the export cable corridor from land out to both these areas.

### Geophysical Survey

The geophysical survey commenced on the 23<sup>rd</sup> June 2020 in Dogger Bank A (coordinates 14-19) utilising the vessel Franklin. Geophysical survey operations in Dogger Bank A and B have been completed and is currently ongoing along the export routes and is expected to end on **14<sup>th</sup> of September** (subject to extension if the weather becomes poor).

Equipment deployed: hull mounted Multibeam sonar and towed equipment up to 300 m behind the vessel consisting of Side scan sonar and multiple Magnetometers within a ROTV frame within 5 m of the seabed.

When underwater survey equipment is deployed, the survey vessels may have restricted ability to manoeuvre and **other vessels are requested to pass at a safe speed and distance (at least 500 m)**. This also applies for the upcoming UXO survey.

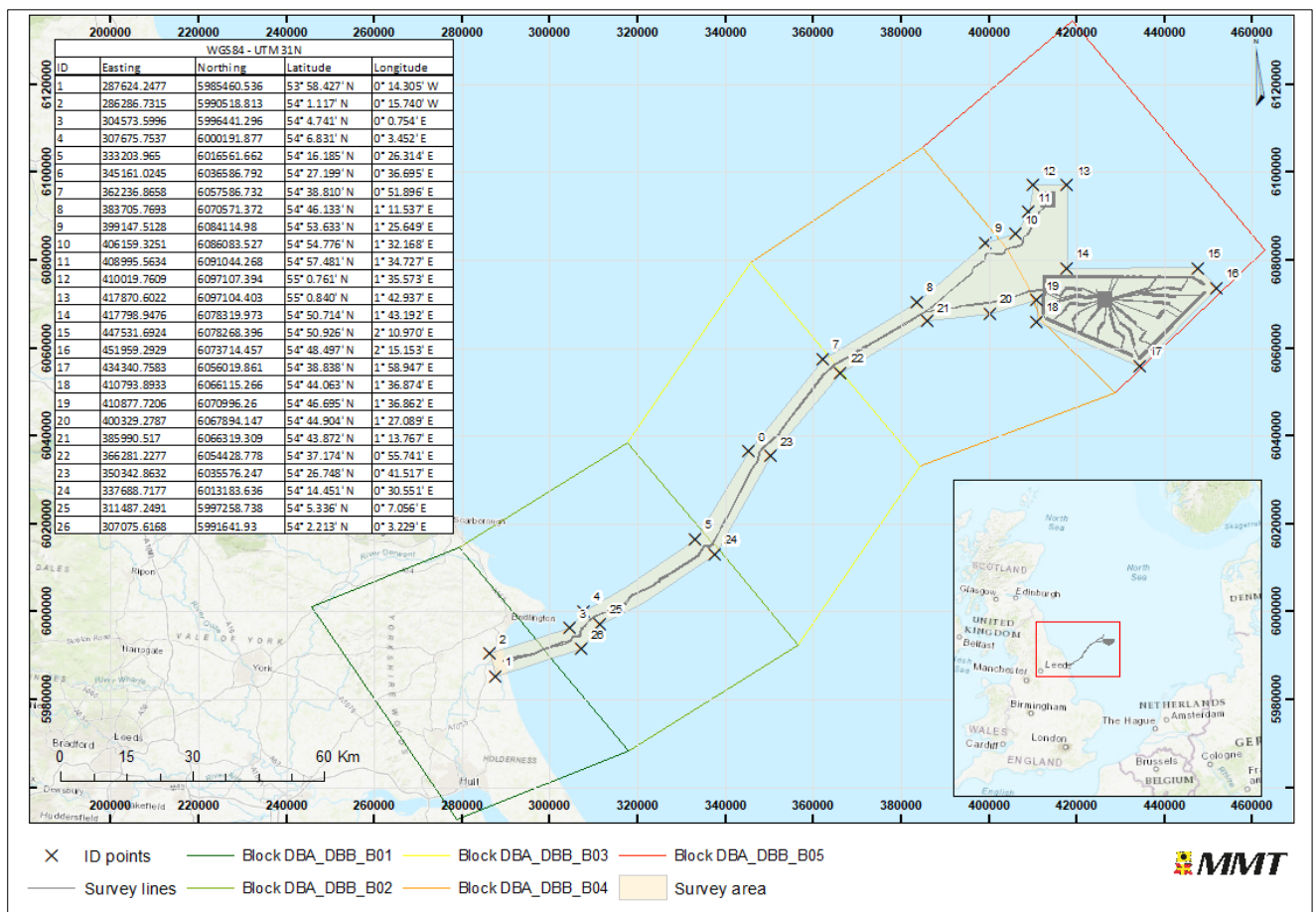


Figure 1. Overview of the geophysical survey areas, including Dogger Bank A, Dogger Bank B and the export route corridor. Coordinates can be found at the end of this document.

## UXO Survey

The next phase of the offshore survey work is UXO survey in selected areas within the boundaries of the geophysical survey area, as shown in Figure 2. Further details and timeline for the UXO survey are presented in the table below. Note that the dates overlap, this is to account for potential delays caused by e.g. weather.

| Timeline UXO survey |                   |                   |
|---------------------|-------------------|-------------------|
| Survey area         | Start date        | End date          |
| D                   | <b>2020-09-15</b> | 2020-10-07        |
| C                   | 2020-10-02        | 2020-10-15        |
| B                   | 2020-10-10        | 2020-10-23        |
| A                   | 2020-10-17        | <b>2020-11-05</b> |

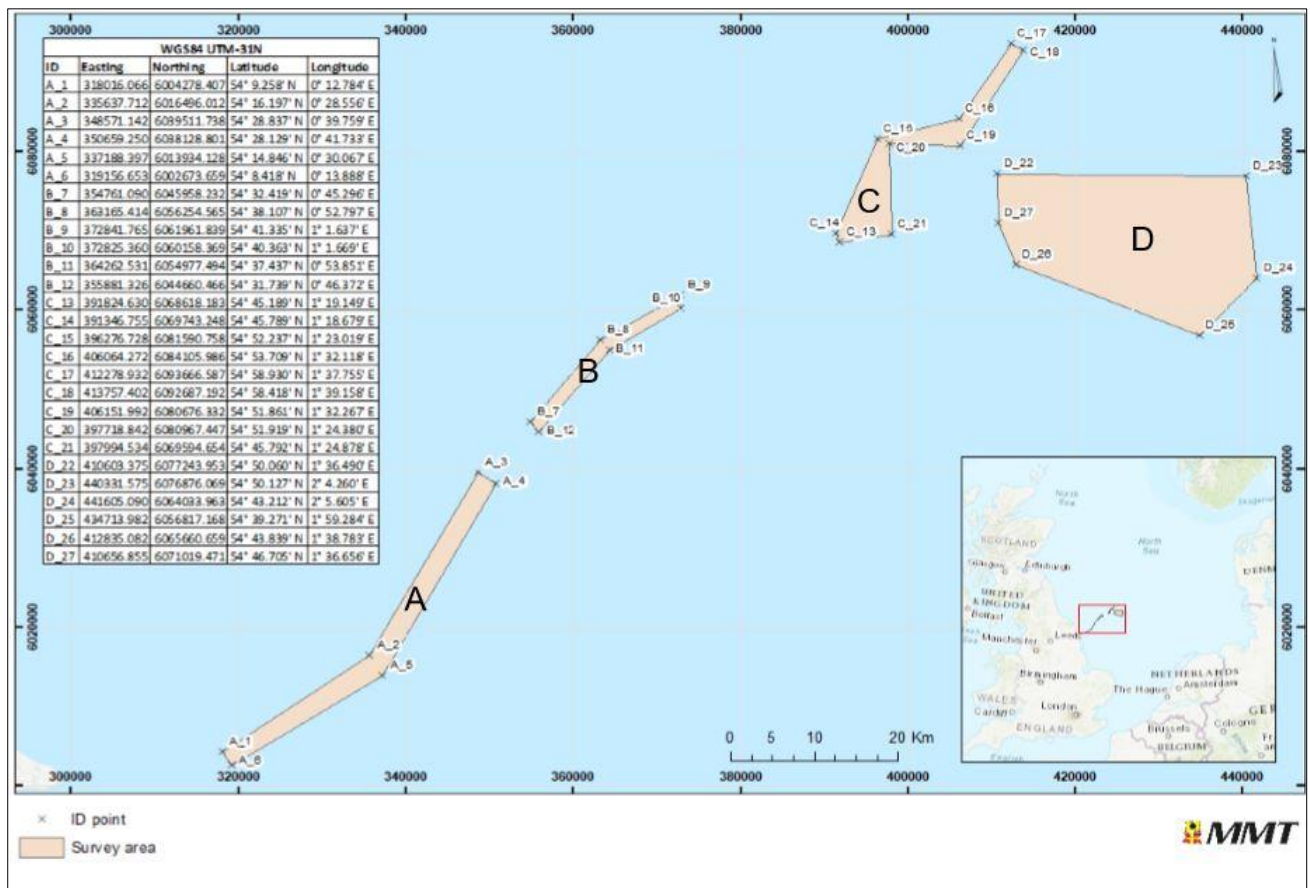


Figure 1. Overview of the UXO survey areas. Coordinates can be found at the end of this document.

## Nearshore Survey

Nearshore survey along the export cable corridor (inside of the 15 m contour, i.e. Block 1 in Figure 1) commenced on the 21<sup>st</sup> of July 2020 and was completed on the 19<sup>th</sup> of August, using the vessel Mimer.

## Vessels

The offshore survey work is carried out by MMT using survey vessel M/V FRANKLIN.  
The nearshore survey was carried out by MMT using the survey vessel M/V MIMER.



Vessel: Franklin  
Owner: Northern Survey  
Call Sign: OZ2102  
IMO: 8301797  
GSM: +46 31 31 00 301  
Bridge: +46 31 31 00 301  
Email: franklin@northern-survey.com



Vessel: Mimer  
Owner: Van Laar Maritime  
Call Sign: C6ED3  
IMO: 8661812  
Bridge: +31 255 787 007  
Email: mimer@dbconnect.nl

## Fisheries Liaisons Officer

During the survey, there is an FLO officer on board Franklin. The FLO can be contacted via the vessel bridge (+46 31 31 00 301).

Onshore FLO contact:  
+44 (0)7850 604851  
[jonathan@brownmay.com](mailto:jonathan@brownmay.com)

## Contact Details:

Further enquiries should be addressed to the following people in the following order:

1. Åsa Pettersson (MMT Project Manager), T: +46 703 455 564, [asa.pettersson@mmt.se](mailto:asa.pettersson@mmt.se)
2. Kalle Flink (MMT Operations), T: +46 708 11 28 43, [kalle.flink@mmt.se](mailto:kalle.flink@mmt.se)
3. Captain Franklin, T: +46 31 31 00 301, [captain.franklin@northern-survey.com](mailto:captain.franklin@northern-survey.com)
4. Captain Mimer, T: +31 255 787 007, [mimer@dbconnect.nl](mailto:mimer@dbconnect.nl)

## Distribution:

A distribution list has been distributed together with this NTM.

## Coordinates:

Coordinates for the **geophysical survey** as seen in Figure 1 are presented in the table below.

| WGS84 UTM-31N |             |             |               |              |
|---------------|-------------|-------------|---------------|--------------|
| ID            | Easting     | Northing    | Latitude      | Longitude    |
| 1             | 287624,2477 | 5985460,536 | 53° 58.427' N | 0° 14.305' W |
| 2             | 286286,7315 | 5990518,813 | 54° 1.117' N  | 0° 15.740' W |
| 3             | 304573,5996 | 5996441,296 | 54° 4.741' N  | 0° 0.754' E  |
| 4             | 307675,7537 | 6000191,877 | 54° 6.831' N  | 0° 3.452' E  |
| 5             | 333203,965  | 6016561,662 | 54° 16.185' N | 0° 26.314' E |
| 6             | 345161,0245 | 6036586,792 | 54° 27.199' N | 0° 36.695' E |
| 7             | 362236,8658 | 6057586,732 | 54° 38.810' N | 0° 51.896' E |
| 8             | 383705,7693 | 6070571,372 | 54° 46.133' N | 1° 11.537' E |
| 9             | 399147,5128 | 6084114,98  | 54° 53.633' N | 1° 25.649' E |
| 10            | 406159,3251 | 6086083,527 | 54° 54.776' N | 1° 32.168' E |
| 11            | 408995,5634 | 6091044,268 | 54° 57.481' N | 1° 34.727' E |
| 12            | 410019,7609 | 6097107,394 | 55° 0.761' N  | 1° 35.573' E |
| 13            | 417870,6022 | 6097104,403 | 55° 0.840' N  | 1° 42.937' E |
| 14            | 417798,9476 | 6078319,973 | 54° 50.714' N | 1° 43.192' E |
| 15            | 447531,6924 | 6078268,396 | 54° 50.926' N | 2° 10.970' E |
| 16            | 451959,2929 | 6073714,457 | 54° 48.497' N | 2° 15.153' E |
| 17            | 434340,7583 | 6056019,861 | 54° 38.838' N | 1° 58.947' E |
| 18            | 410793,8933 | 6066115,266 | 54° 44.063' N | 1° 36.874' E |
| 19            | 410877,7206 | 6070996,26  | 54° 46.695' N | 1° 36.862' E |
| 20            | 400329,2787 | 6067894,147 | 54° 44.904' N | 1° 27.089' E |
| 21            | 385990,517  | 6066319,309 | 54° 43.872' N | 1° 13.767' E |
| 22            | 366281,2277 | 6054428,778 | 54° 37.174' N | 0° 55.741' E |
| 23            | 350342,8632 | 6035576,247 | 54° 26.748' N | 0° 41.517' E |
| 24            | 337688,7177 | 6013183,636 | 54° 14.451' N | 0° 30.551' E |
| 25            | 311487,2491 | 5997258,738 | 54° 5.336' N  | 0° 7.056' E  |
| 26            | 307075,6168 | 5991641,93  | 54° 2.213' N  | 0° 3.229' E  |

Coordinates for the **UXO survey** as seen in Figure 2 are presented in the table below.

| WGS84 UTM-31N |            |             |               |              |
|---------------|------------|-------------|---------------|--------------|
| ID            | Easting    | Northing    | Latitude      | Longitude    |
| A_1           | 318016,066 | 6004278,407 | 54° 9.258' N  | 0° 12.784' E |
| A_2           | 335637,712 | 6016496,012 | 54° 16.197' N | 0° 28.556' E |
| A_3           | 348571,142 | 6039511,738 | 54° 28.837' N | 0° 39.759' E |
| A_4           | 350659,250 | 6038128,801 | 54° 28.129' N | 0° 41.733' E |
| A_5           | 337188,397 | 6013934,128 | 54° 14.846' N | 0° 30.067' E |
| A_6           | 319156,653 | 6002673,659 | 54° 8.418' N  | 0° 13.888' E |
| B_7           | 354761,090 | 6045958,232 | 54° 32.419' N | 0° 45.296' E |
| B_8           | 363165,414 | 6056254,565 | 54° 38.107' N | 0° 52.797' E |
| B_9           | 372841,765 | 6061961,839 | 54° 41.335' N | 1° 1.637' E  |
| B_10          | 372825,360 | 6060158,369 | 54° 40.363' N | 1° 1.669' E  |
| B_11          | 364262,531 | 6054977,494 | 54° 37.437' N | 0° 53.851' E |
| B_12          | 355881,326 | 6044660,466 | 54° 31.739' N | 0° 46.372' E |
| C_13          | 391824,630 | 6068618,183 | 54° 45.189' N | 1° 19.149' E |
| C_14          | 391346,755 | 6069743,248 | 54° 45.789' N | 1° 18.679' E |
| C_15          | 396276,728 | 6081590,758 | 54° 52.237' N | 1° 23.019' E |
| C_16          | 406064,272 | 6084105,986 | 54° 53.709' N | 1° 32.118' E |
| C_17          | 412278,932 | 6093666,587 | 54° 58.930' N | 1° 37.755' E |
| C_18          | 413757,402 | 6092687,192 | 54° 58.418' N | 1° 39.158' E |
| C_19          | 406151,992 | 6080676,332 | 54° 51.861' N | 1° 32.267' E |
| C_20          | 397718,842 | 6080967,447 | 54° 51.919' N | 1° 24.380' E |
| C_21          | 397994,534 | 6069594,654 | 54° 45.792' N | 1° 24.878' E |
| D_22          | 410603,375 | 6077243,953 | 54° 50.060' N | 1° 36.490' E |
| D_23          | 440331,575 | 6076876,069 | 54° 50.127' N | 2° 4.260' E  |
| D_24          | 441605,090 | 6064033,963 | 54° 43.212' N | 2° 5.605' E  |
| D_25          | 434713,982 | 6056817,168 | 54° 39.271' N | 1° 59.284' E |
| D_26          | 412835,082 | 6065660,659 | 54° 43.839' N | 1° 38.783' E |
| D_27          | 410656,855 | 6071019,471 | 54° 46.705' N | 1° 36.656' E |