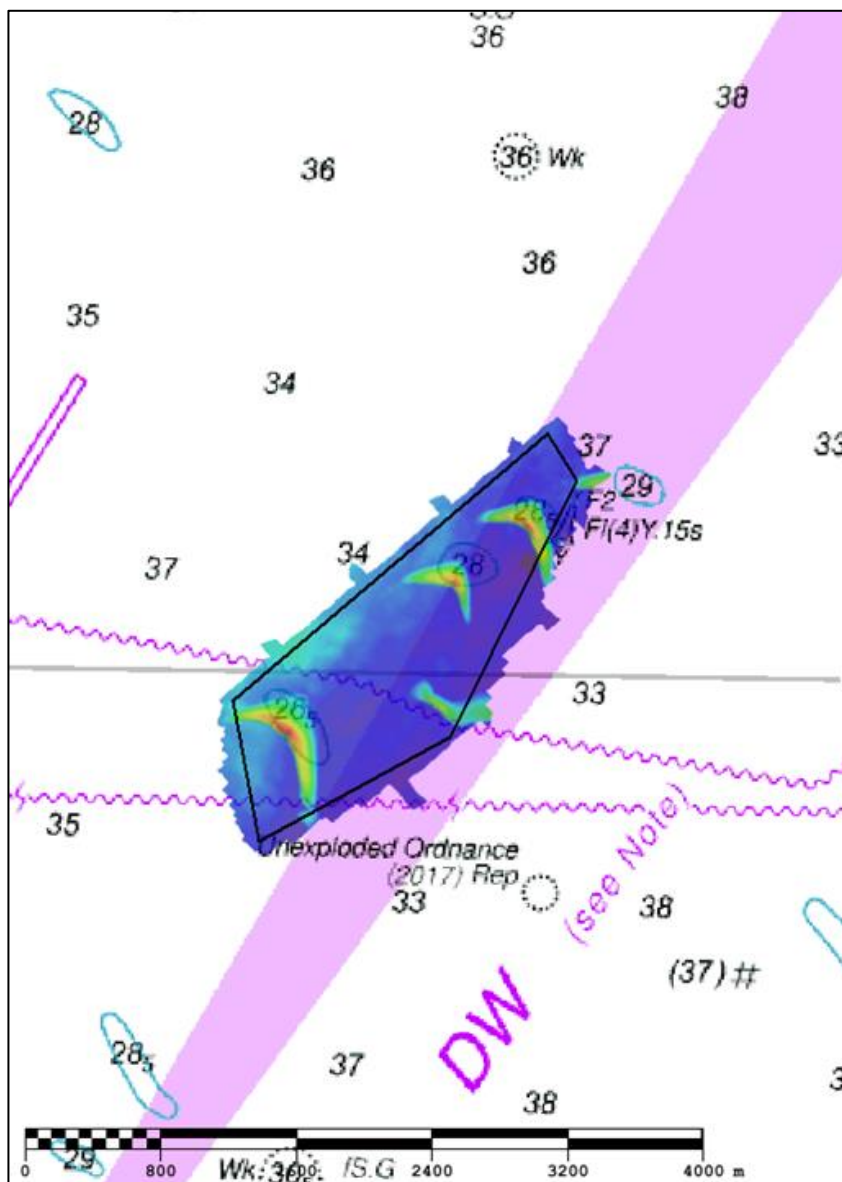


## DOVER STRAIT DWR SOUTH WEST BOUND (AREA C) 2019 ASSESSMENT

An assessment of the 2019 hydrographic survey of the area DWR SWB Area C: to monitor recent seabed movement; to identify any implications for shipping; and to make recommendations for future surveys.



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### Notes

This Assessment is produced by the UK Hydrographic Office (UKHO) for the Maritime and Coastguard Agency (MCA). Analysis of the Routine Resurvey Areas forms part of the Civil Hydrography Programme and the reports are made available to through the UKHO website and are presented to the Civil Hydrography Working Group. When approved, the recommendations are incorporated into the Routine Resurvey Programme. The report is governed by a Memorandum of Understanding between the DfT (including the MCA) and the MOD (including the UKHO).

The Admiralty Chart extracts, other graphics and tables in this Report are included for illustrative purposes only and are NOT TO BE USED FOR NAVIGATION.

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No analysis of shipping traffic has been included within this report due to no AIS data being supplied by MCA.

All depths are to Chart Datum, defined using the UKHO VORF Model

## **DWR SWB AREA C, 2019**

### **1. SUMMARY**

#### **Changes Detected**

- 1.1 The current least depth is 26.3m, -0.3m shoaler than the 2007 surveyed least depth.
- 1.2 There has been very distinct sandwave migration southwest since 2007. The remainder of the seafloor remains very stable, only changing on a scale of  $\pm 0.6$ m.

#### **Reasons for Continuing to Resurvey the Area**

- 1.3 As a crucial shipping route in an area of sandwaves, this area requires continued monitoring through resurveys.

#### **Recommendations**

- 1.4 As the depth is relatively stable, Area C should remain on the 15-year survey interval.
- 1.5 Both the controlling depth and the sandwaves are unlikely to move beyond the survey boundary within 15 years. Survey area is therefore sufficient to monitor these features.

### **2. LOCATION**

- 2.1 Survey interval at time of resurvey: 15 years
- 2.2 Area Covered: 2.59 km<sup>2</sup>

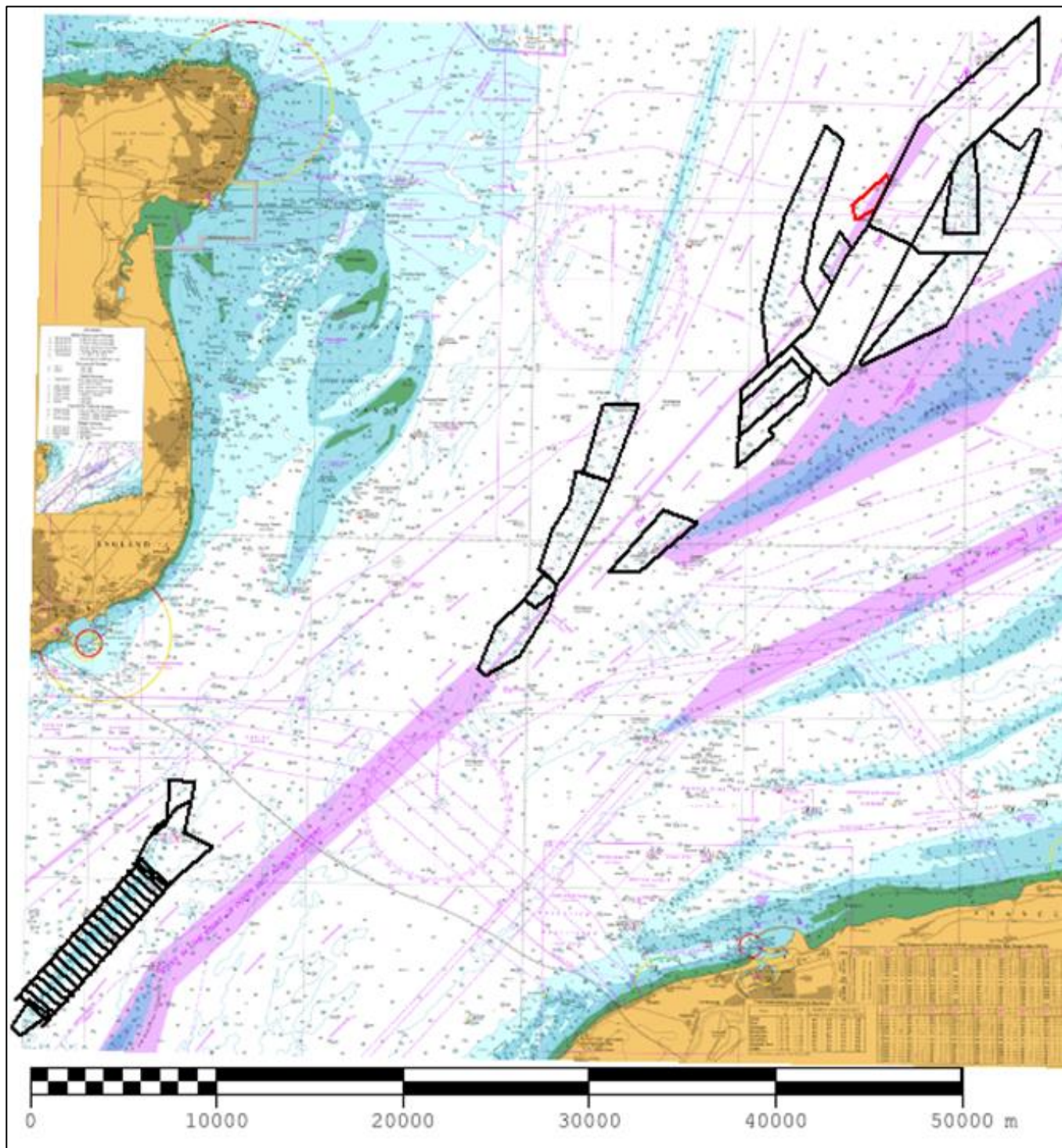


Figure 1: 2019 Dover Strait Routine Resurvey areas overlaid on BA Chart 0323-0 with area DWR SWB Area C in red.

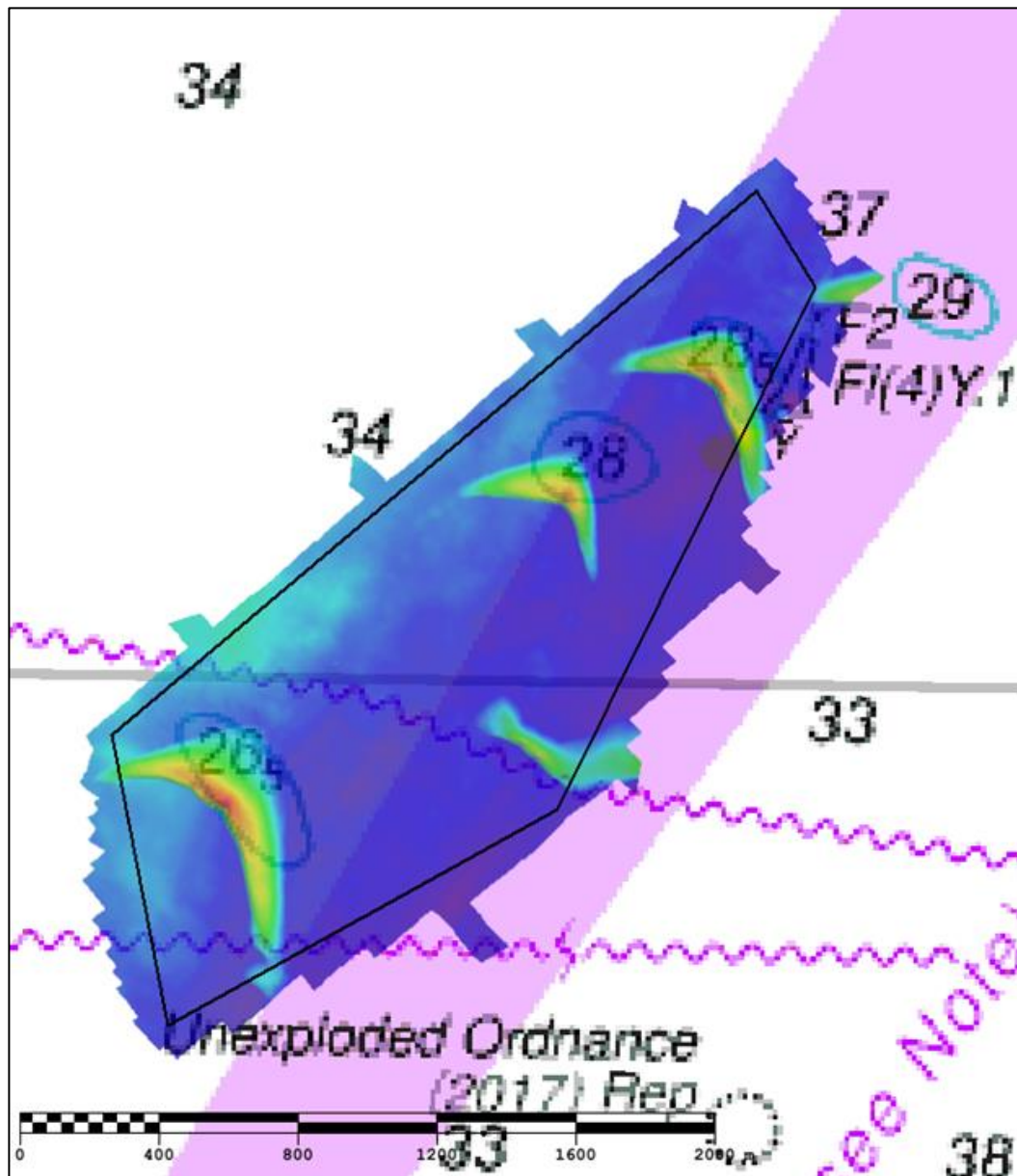


Figure 2: 2019 survey data overlaid on BA Chart 0323-0.

### 3. REFERENCE SURVEY DETAIL

- 3.1 The previous full survey was conducted as part of the 2007 Routine Resurvey Programme between September 2006 and July 2007 as part of HI1159. Another full survey was conducted as part of the 2004 Routine Resurvey Programme in July 2004 as part of HI1081.
- 3.2 The Report of Survey for this survey is available upon request from the UKHO and the validated bathymetric surfaces are available to download from the Admiralty Marine Data Portal.

### 4. NEW SURVEY DETAIL

- 4.1 The latest focused survey as part of the 2019 Routine Resurvey Programme was conducted between September and October 2019 as part of HI1661.
- 4.2 The Report of Survey for this survey is available upon request from the UKHO and the validated bathymetric surfaces are available to download from the Admiralty Marine Data Portal.

## 5. DESCRIPTION OF RECENT BATHYMETRIC CHANGE

- 5.1 The current least depth is 26.3m in the south section of the survey (shown in red in Figure 3). The least depth is now 140m south from where it was located in 2007 and is 0.3m shoaler in comparison.
- 5.2 The difference surfaces in Figures 4 and 5 show that there has been very clear sandwave migration south-west, indicated by the black arrow. Outside of the sandwave areas, the seafloor has remained very stable, only changing on a scale of  $\pm 0.6\text{m}$ .
- 5.3 Figure 6 is a colour-banded depth plot, with changes since 2007 labelled. Sandwave areas show the higher amounts of change due to the migration in position, but the remaining changes are relatively low as the seafloor is more stable.

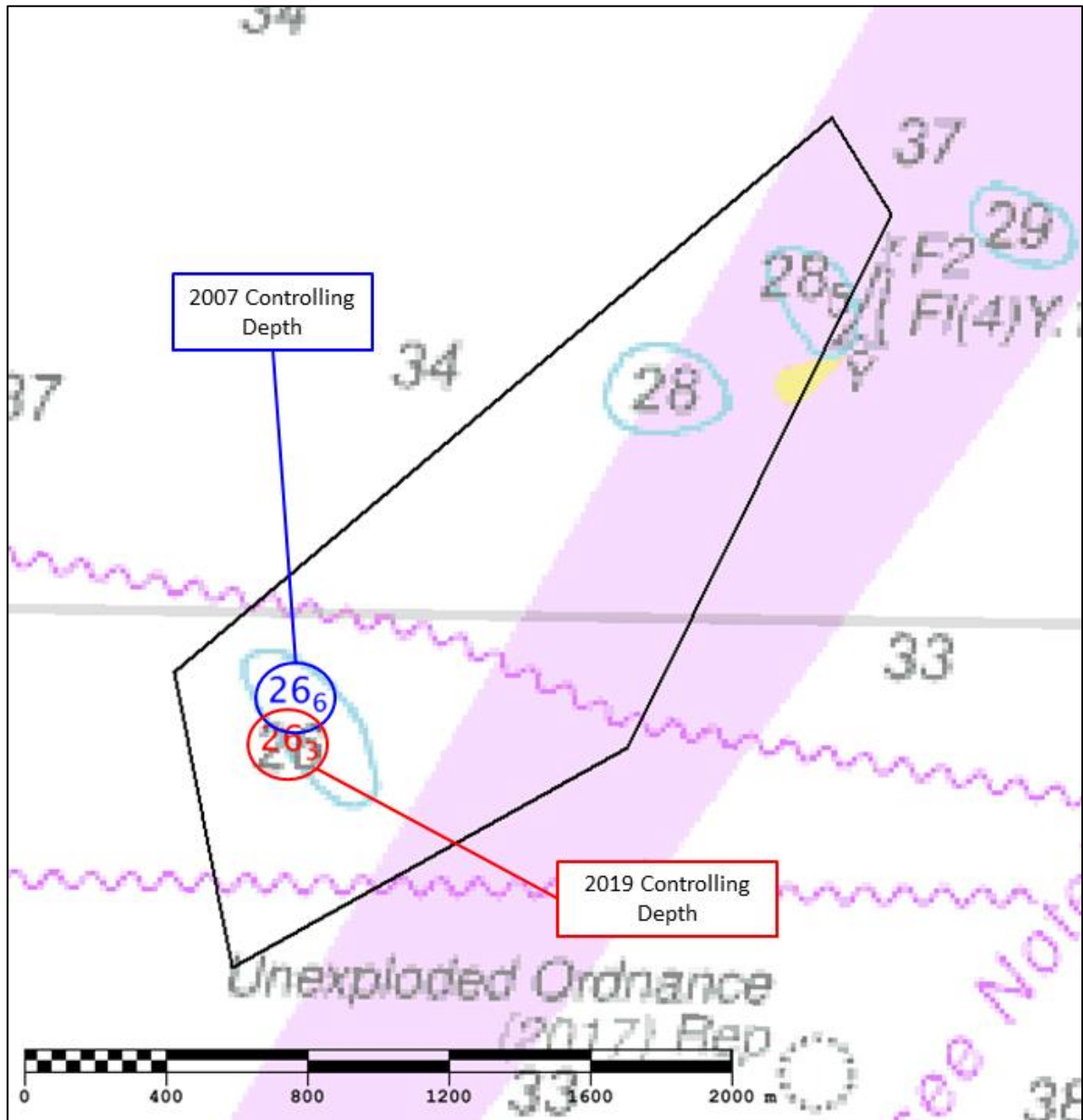


Figure 3 – Least Depth Diagram with 2019 Least Depth in Red and 2007 in Blue.

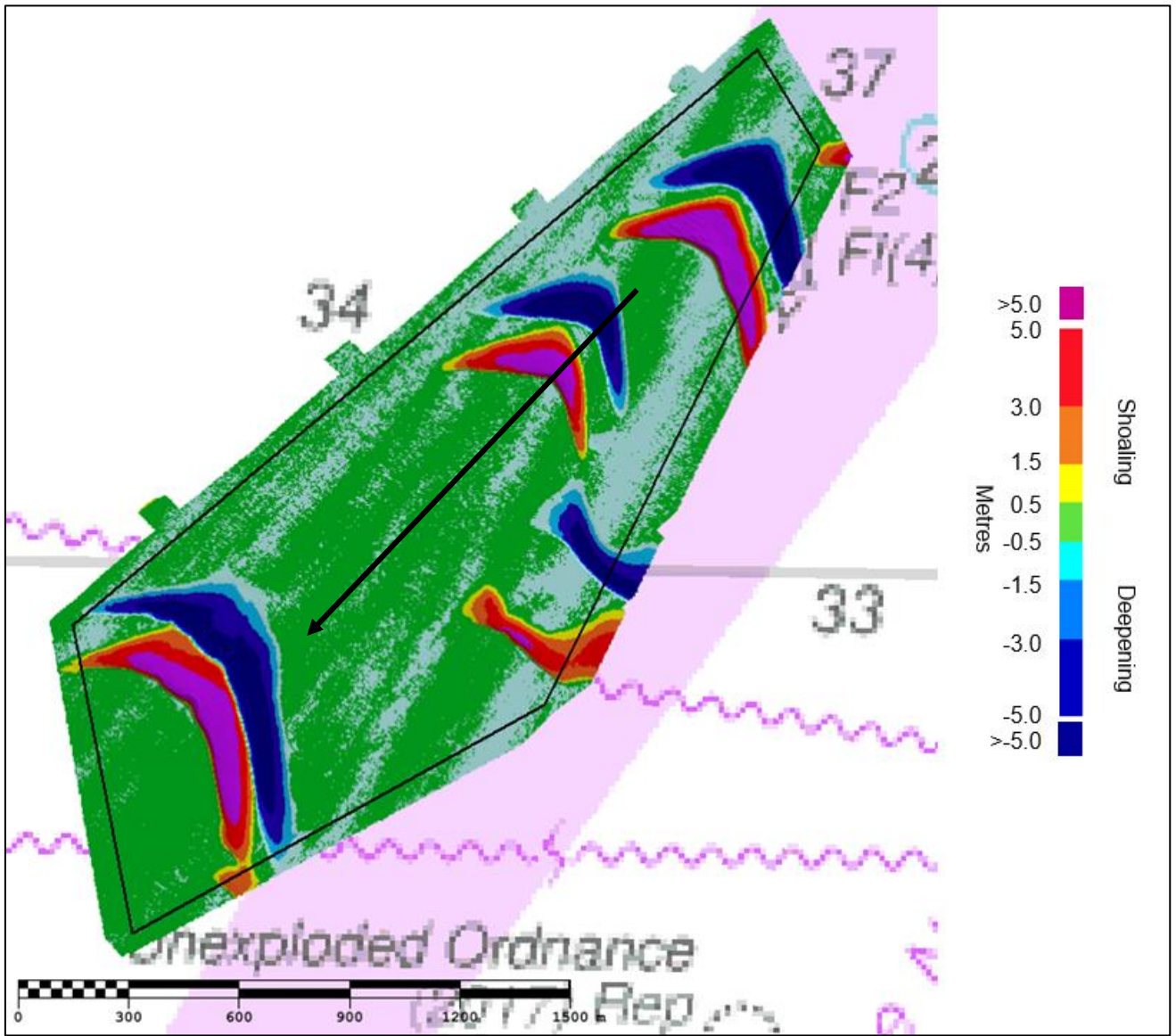


Figure 4: Difference surface showing bathymetric changes between the 2019 and 2004 surveys overlaid on BA Chart 0323-0 (Black arrows represent sandwave migration since 2004 survey).

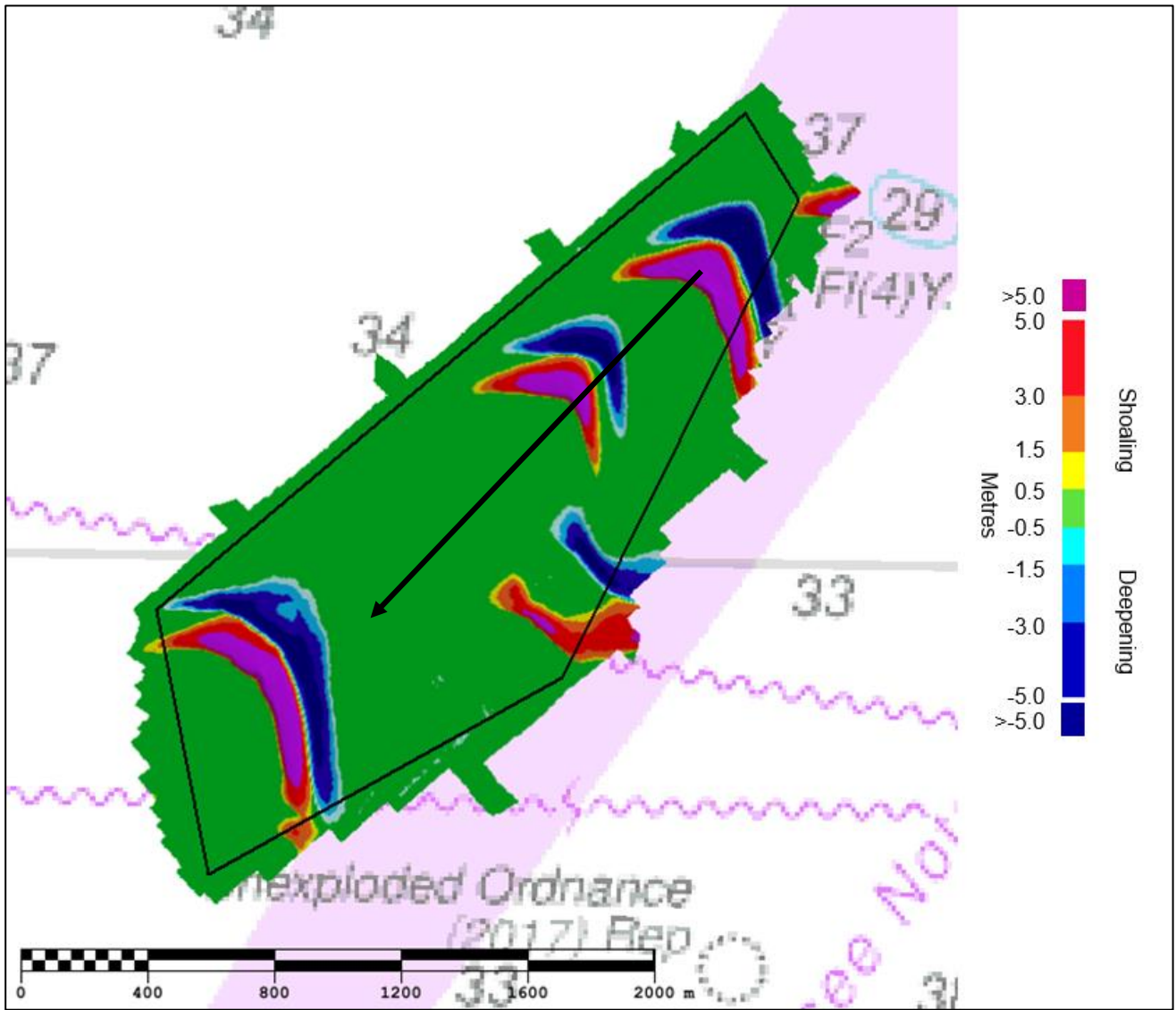


Figure 5: Difference surface showing bathymetric changes between the 2019 and 2007 surveys overlaid on BA Chart 0323-0 (Black arrows represent sandwave migration since 2007 survey).



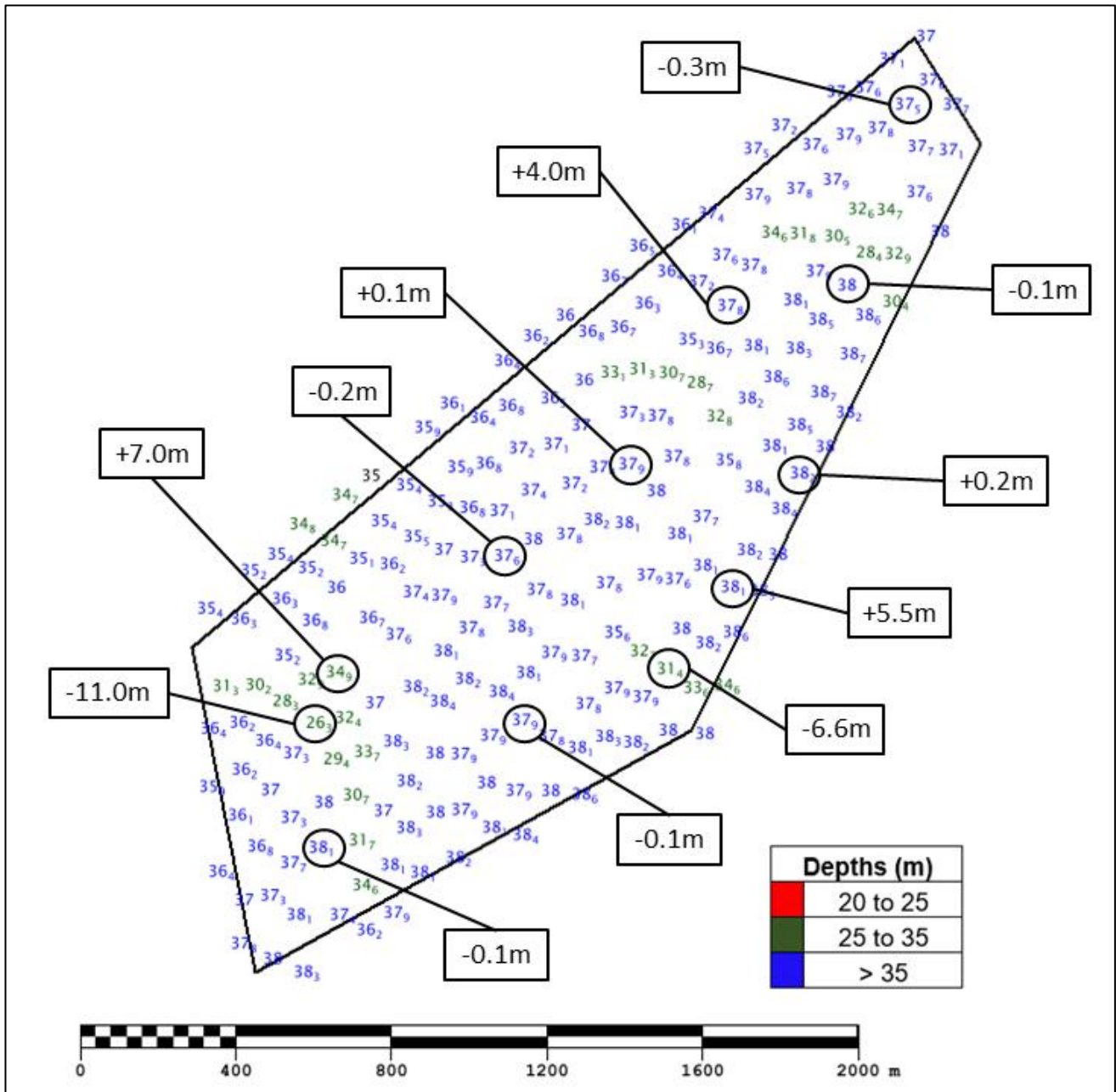


Figure 6: Colour banded depth plot from the 2019 survey with selected depth changes since the 2007 survey. Positive values (+) represent deepening. Negative values (-) represent shoaling.

## 6. RECOMMENDATIONS FOR FUTURE SURVEYS

### Survey Interval

6.1 As the mobile sandwaves have not migrated a significant distance in 13 years and the least depth has only shoaled by a small amount, Area C should remain on the 15-year survey interval.

### Survey Area

6.2 Both the least depth and the sandwaves are moving slowly southwest. They are unlikely to move beyond the survey boundary within 15 years. The survey area is therefore sufficient to monitor these features for the time being but should be re-considered at the next analysis in 15 years' time.