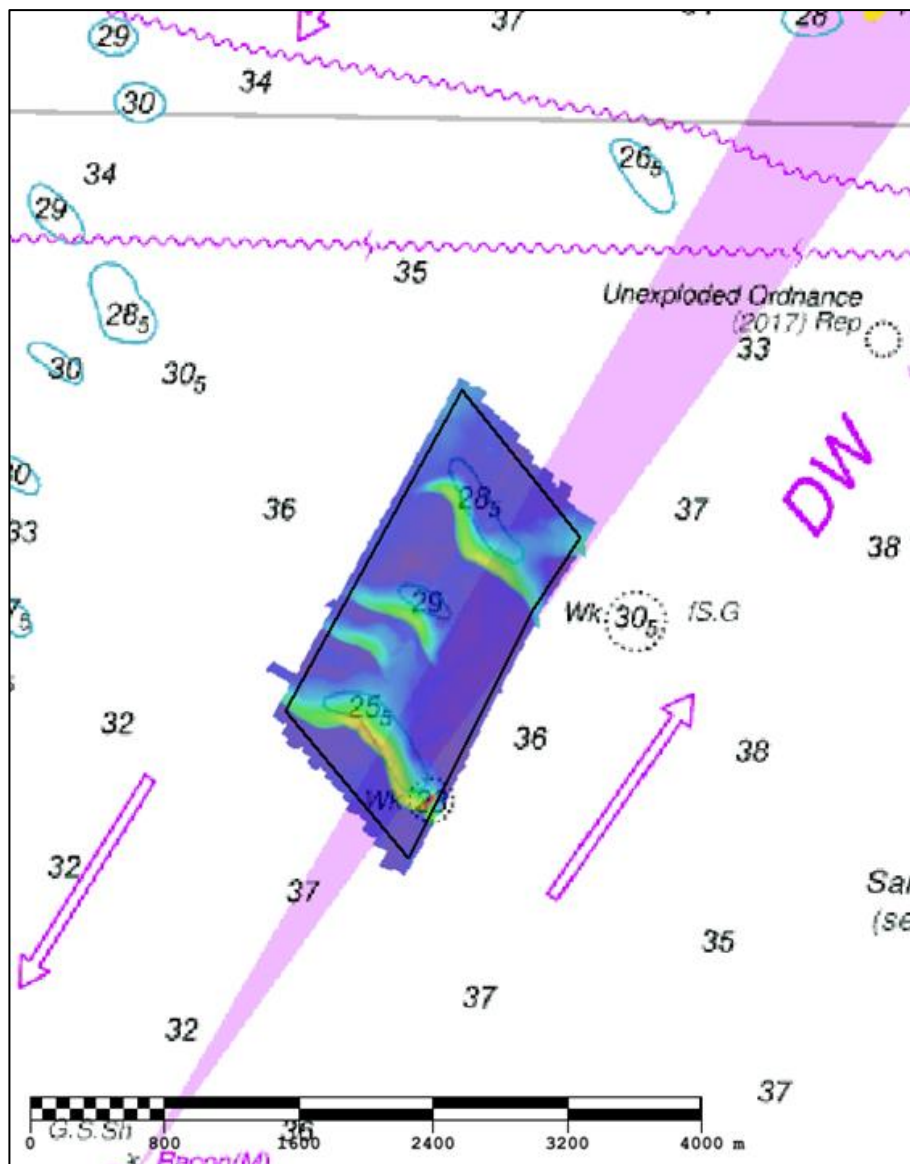




UK Hydrographic
Office

DOVER STRAIT DWR SOUTH-WEST BOUND (AREA A) 2019 ASSESSMENT

An assessment of the 2019 hydrographic survey of the area DWR SWB Area A: 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).

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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 A, 2019

1. SUMMARY

Changes Detected

- 1.1 Least depth (on a sandwave) in the SW bound lane is -0.3m shoaler than 2007 and has shifted slightly southwest.
- 1.2 Least depth over the wreck (NE bound) has deepened by +0.2m since 2007.
- 1.3 Sandwaves have migrated south-west since the 2007 survey, but much of the seafloor has remained stable.

Reasons for Continuing to Resurvey the Area

- 1.4 The SW bound least depth has moved, and the NE bound lane wreck remains potentially hazardous to shipping, therefore the area should continue to be monitored.

Recommendations

- 1.5 As the SW bound least depth has only moved ~100m since 2007, Area A can remain on the 15-year survey interval.
- 1.6 The survey area sufficiently covers the least depths and contains the sandwave features. No changes to the survey boundaries are recommended.

2. LOCATION

- 2.1 Survey interval at time of resurvey: 15 years
- 2.2 Area Covered: 2.65 km²

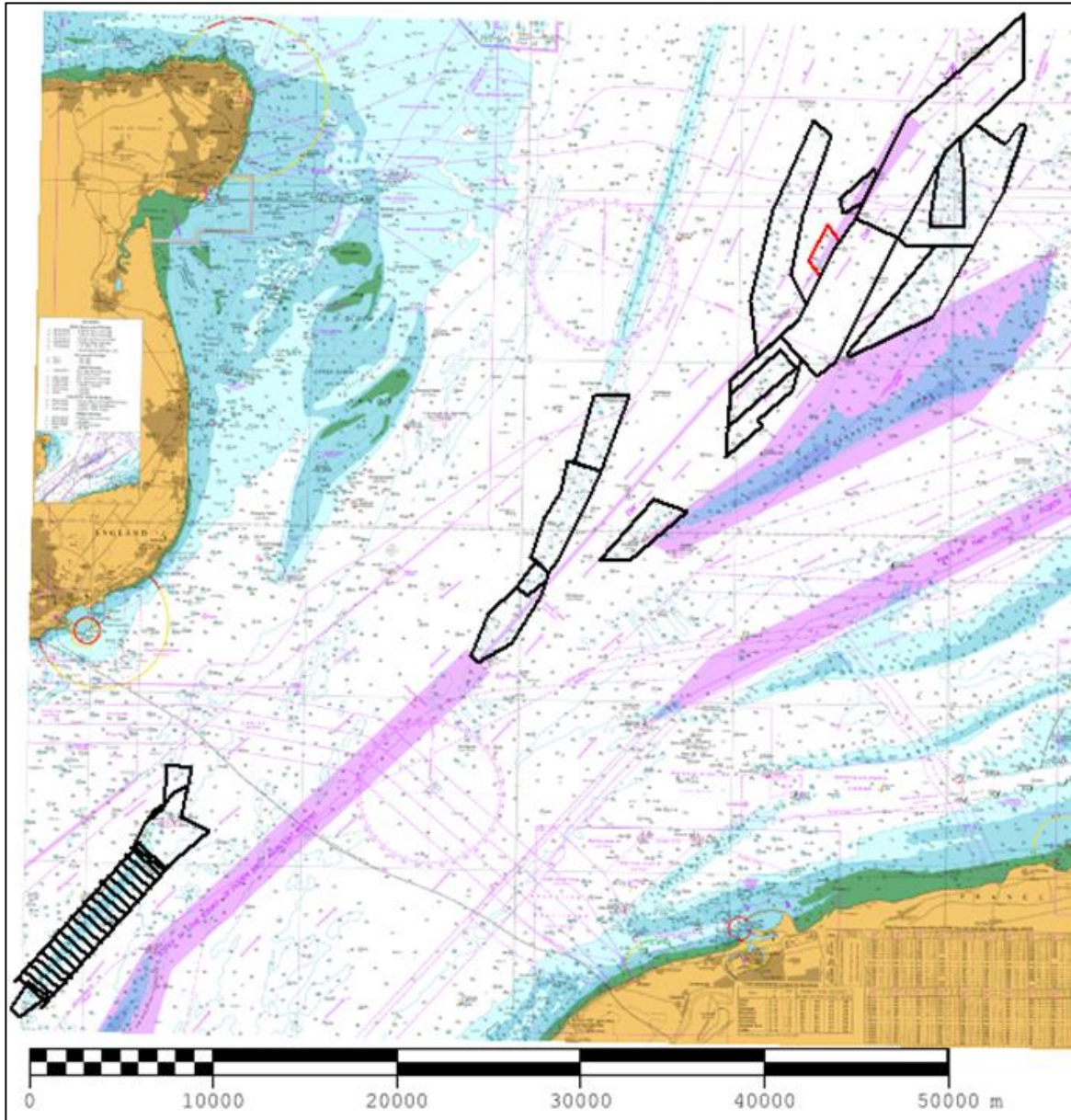


Figure 1: 2019 Dover Strait Routine Resurvey areas overlaid on BA Chart 0323-0 with SWB Area A in red.

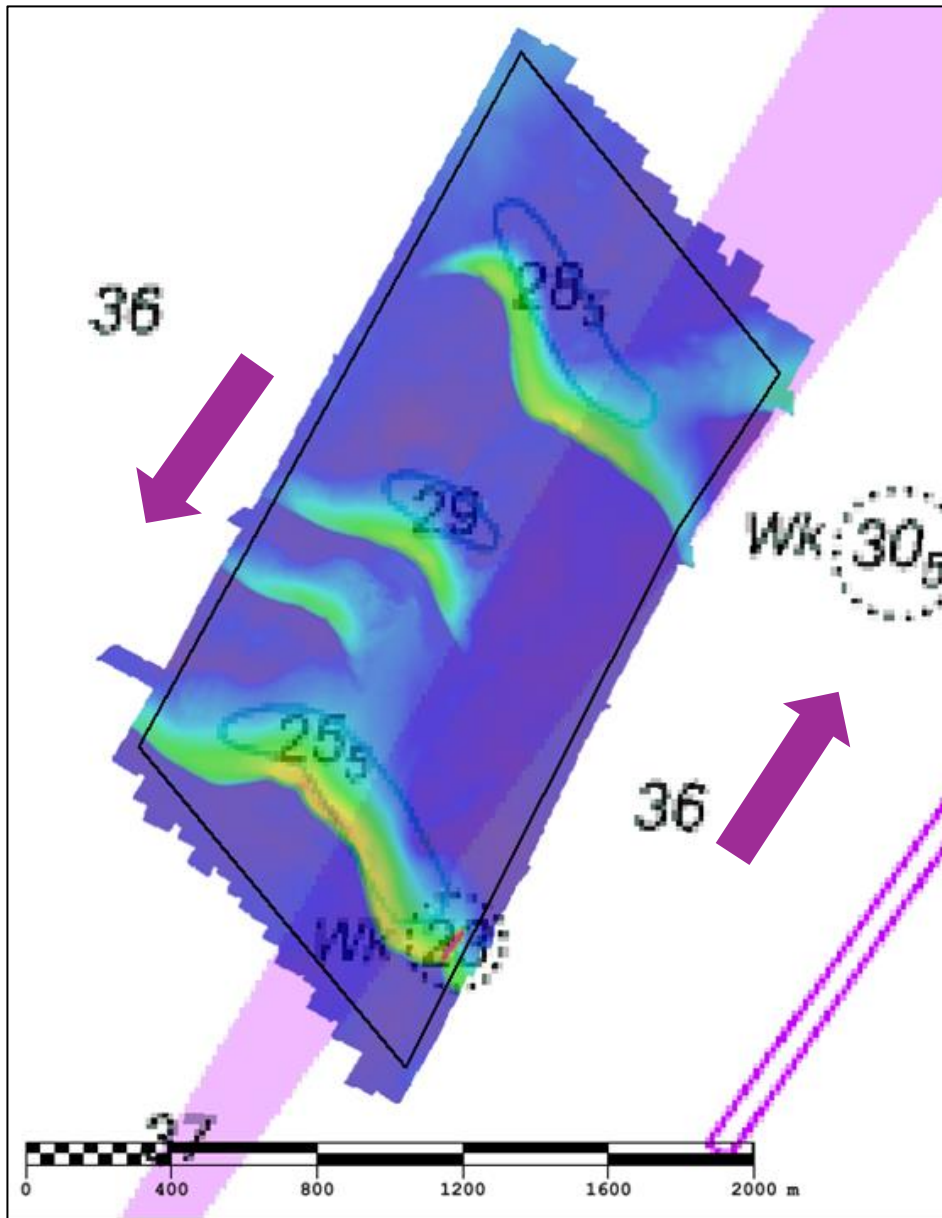


Figure 2: 2019 survey data overlaid on BA Chart 0323-0.

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 HI1659.
- 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 SW bound least depth is now 27.1m and has shifted slightly southwest since 2007 (shown in Figure 3). In 2007 the least depth (SW bound) was 27.4m.
- 5.2 The charted wreck is the shoalest point of the survey and is in the NE bound channel, however, this has deepened by +0.2m since 2007.
- 5.3 The difference surfaces in Figures 4 and 5 show that the most significant changes are seen due to sandwave migration south-west, as indicated by the black arrow. Areas outside of the sandwave features have experienced very little change in depth since the most recent survey in 2007.
- 5.4 Figure 6 is a colour-banded depth plot of the area, with changes since 2007 labelled. Areas surrounding the sandwaves show high amounts of change due to shifts in position, but the remaining changes in areas of relatively flat seafloor are on a scale of $\pm 0.5\text{m}$.

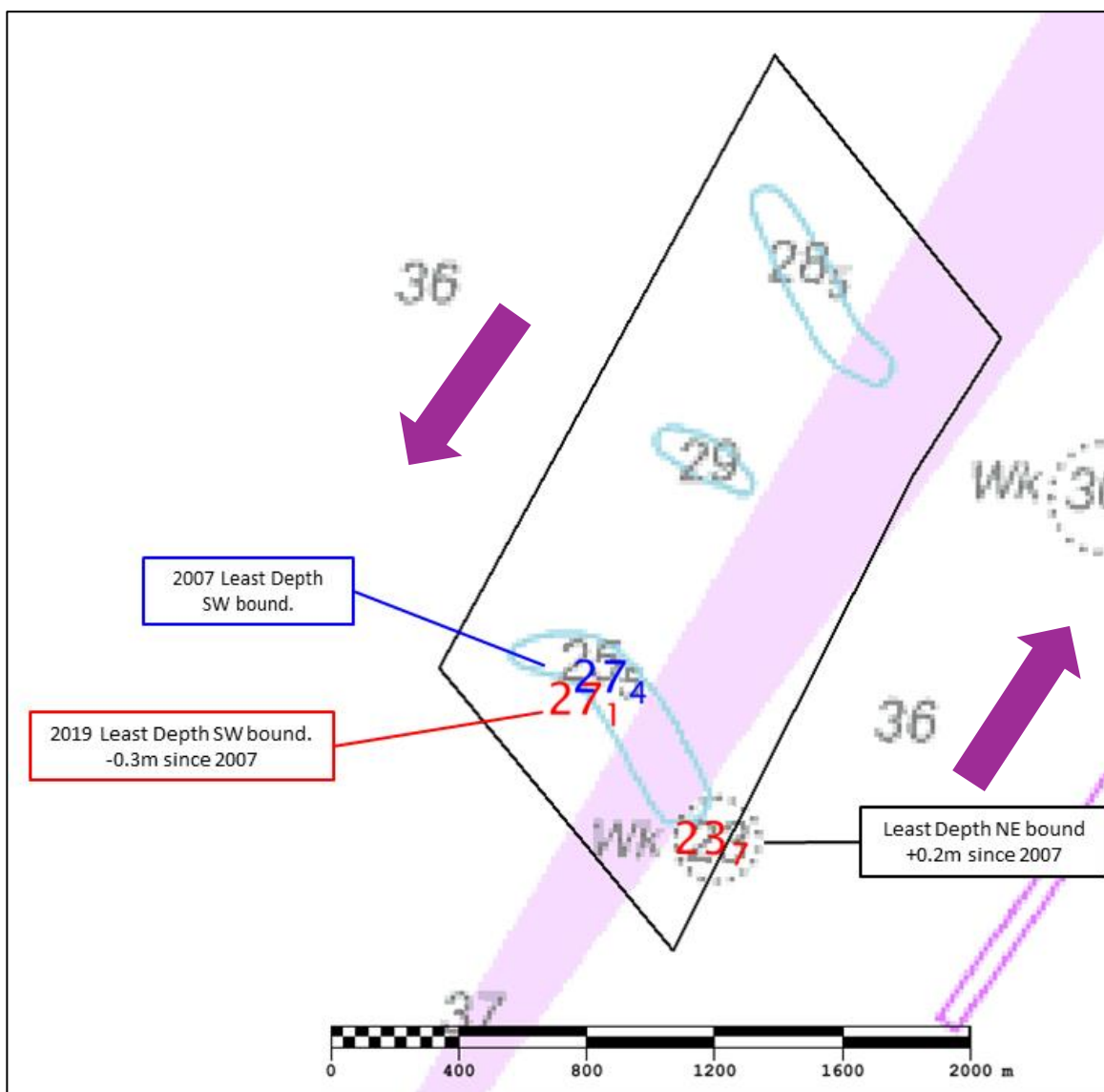


Figure 3 – Least Depth Diagram with 2019 Least and Controlling Depths in Red and 2007 in Blue. Positive values (+) represent deepening in that location since the last survey (2007). Negative values (-) represent shoaling.

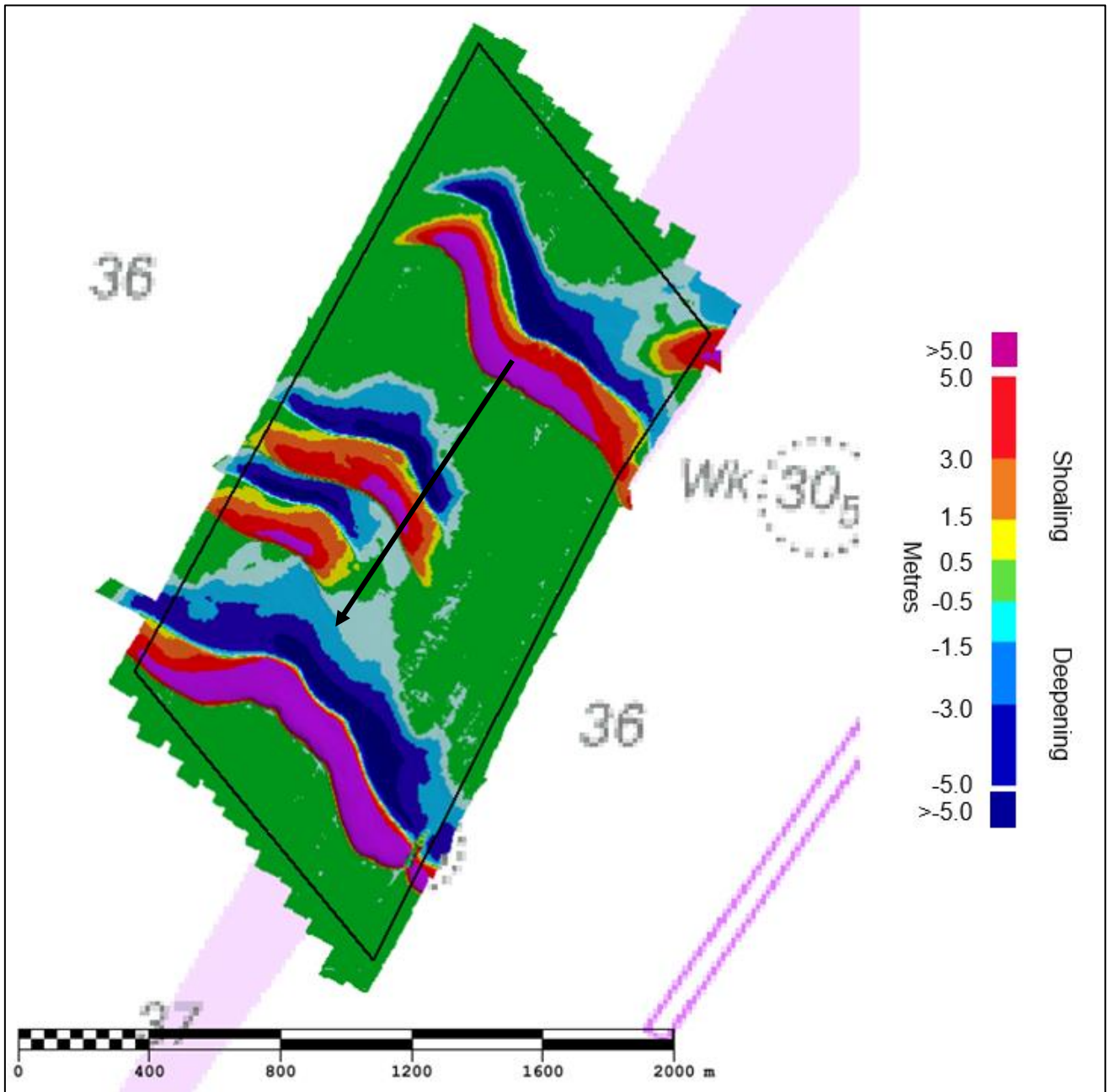


Figure 4: Difference surface showing bathymetric changes between the 2019 and 2004 surveys overlaid on BA Chart 0323-0 (Black arrows represent sandwave migration since 2004 survey).

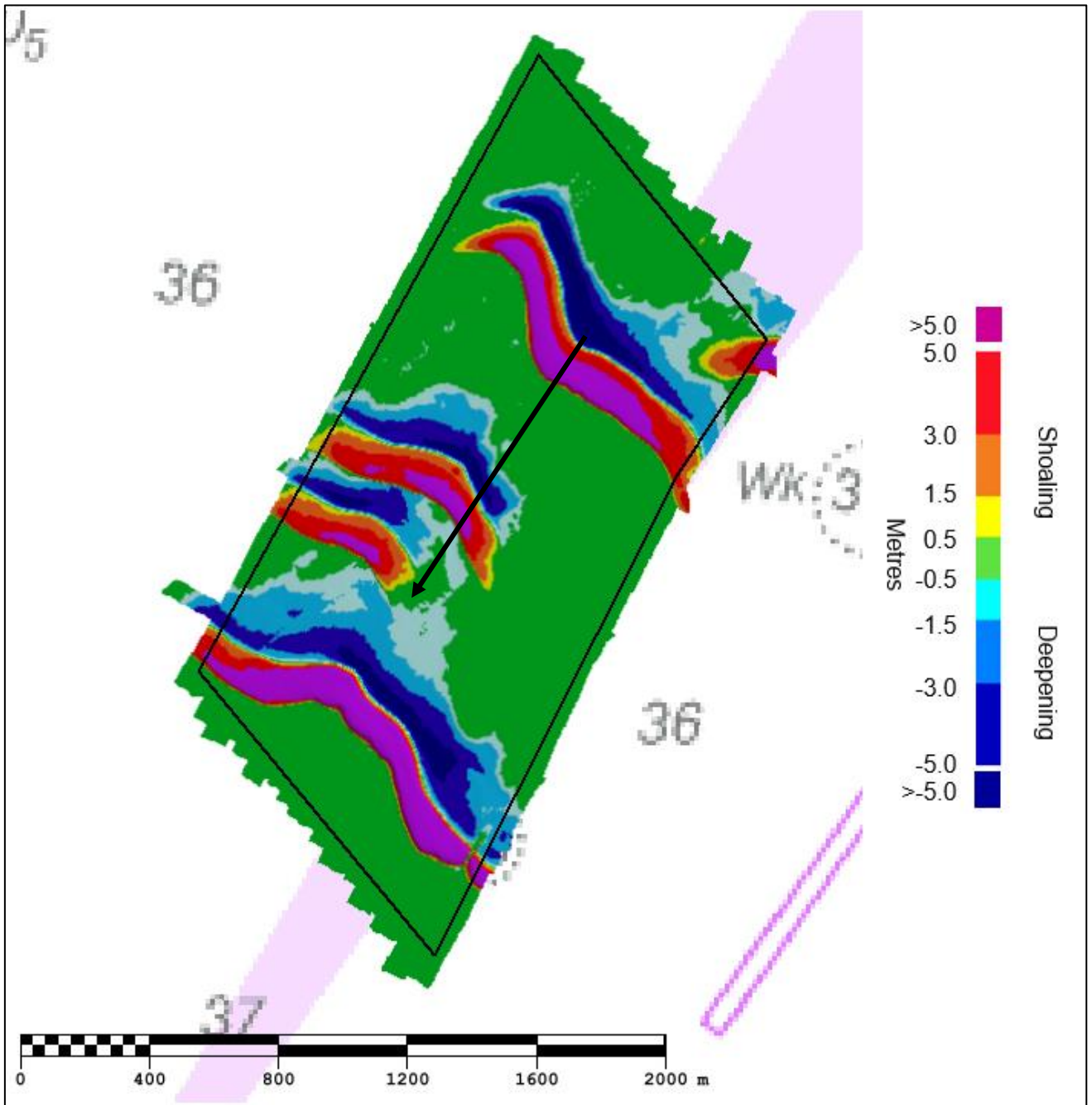


Figure 5: Difference surface showing bathymetric changes between the 2019 and 2007 surveys overlaid on BA Chart 0323-0 (Black arrows represent sandwave migration since 2007 survey).

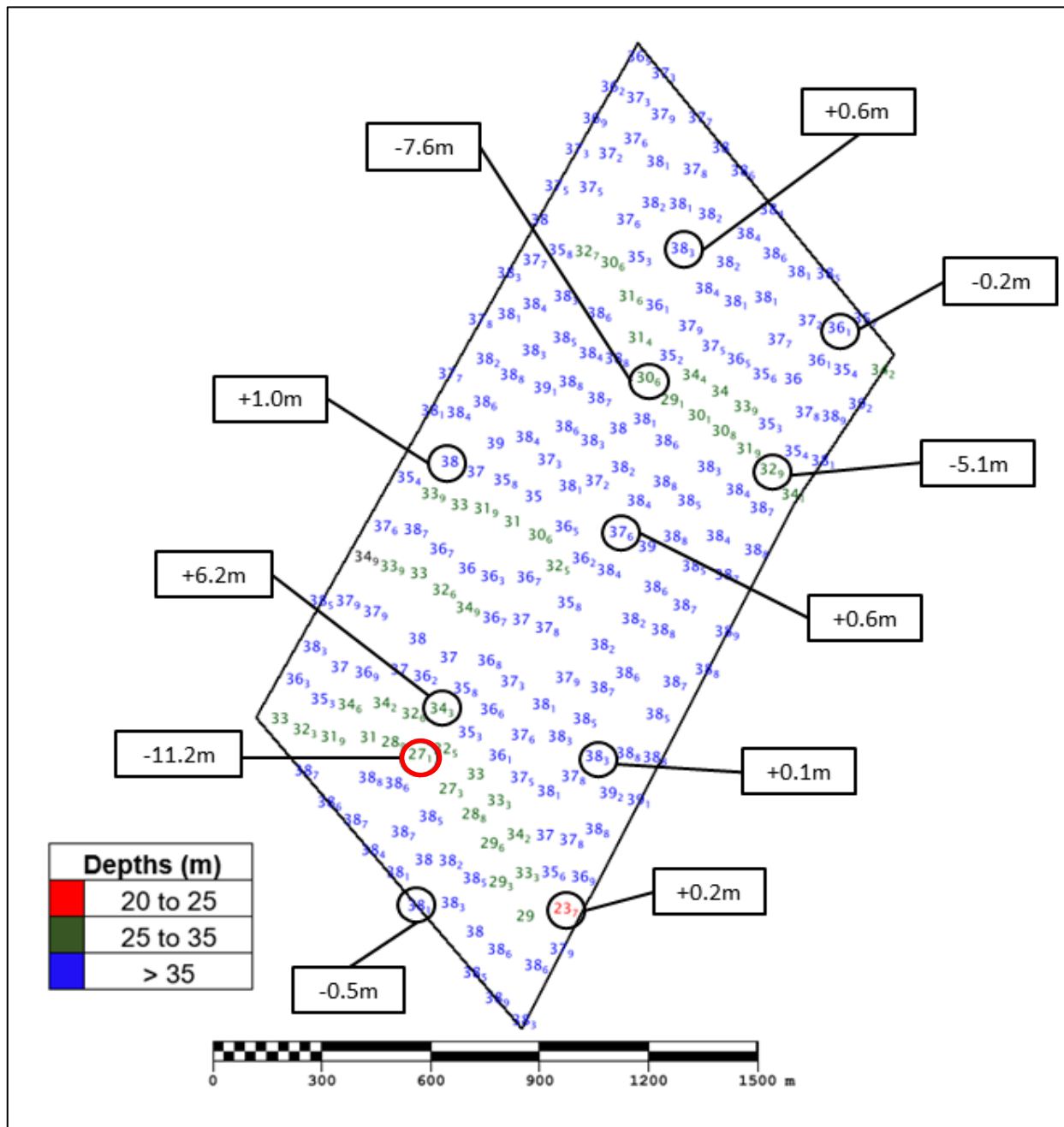


Figure 6: Colour banded depth plot from the 2019 survey with selected depth changes since the 2007 survey. Positive values (+) represent deepening. Negative values (-) represent shoaling.

6. RECOMMENDATIONS FOR FUTURE SURVEYS

Survey Interval

6.1 As the SW least depth has only shifted southwest by <100m in 13 years, Area A can remain on the 15-year survey interval.

Survey Area

6.2 The sandwaves are moving gradually south-west. They are unlikely to move beyond the survey limits within 15 years. The survey area is therefore sufficient to monitor these features.