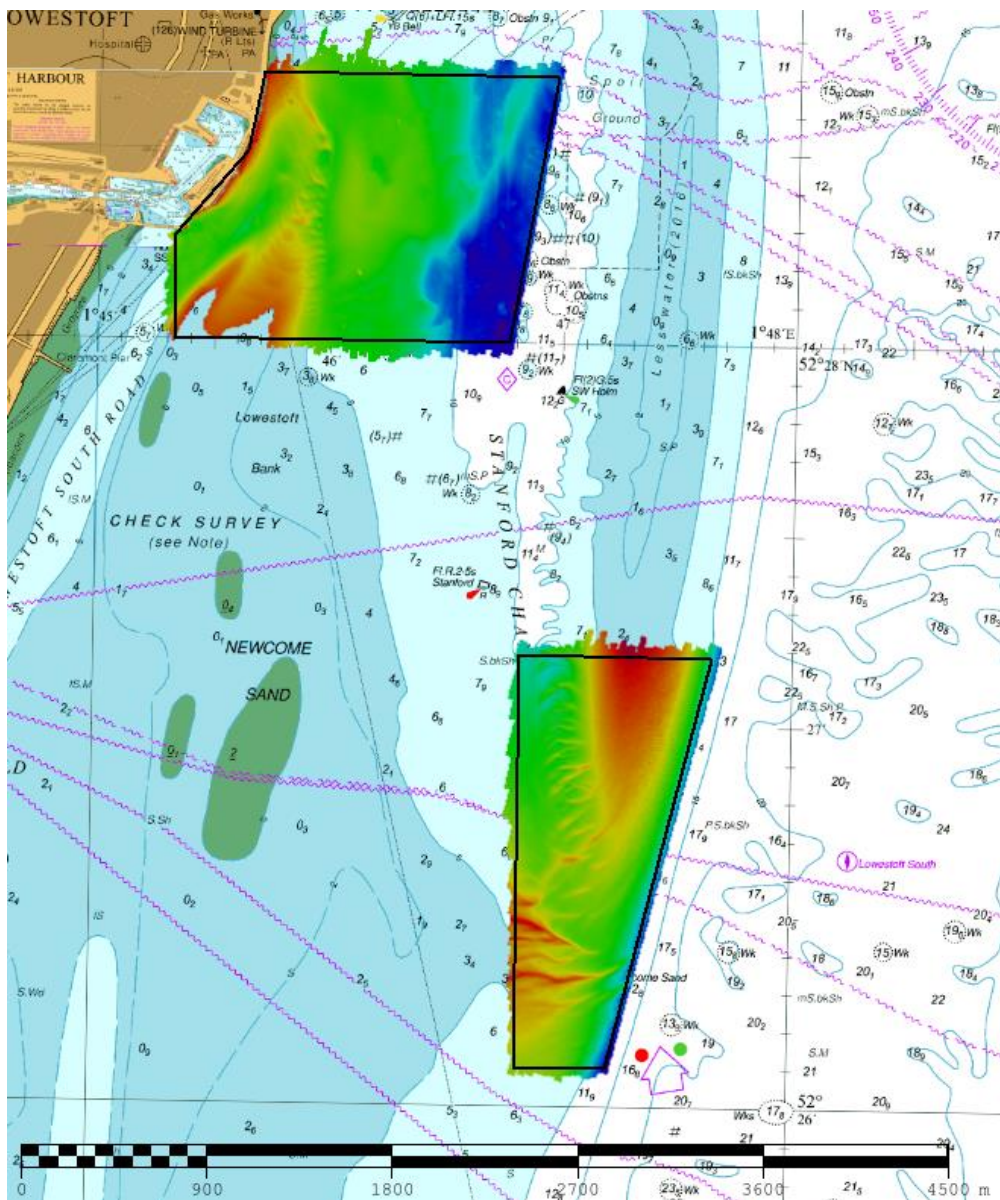




UK Hydrographic
Office

EAST ANGLIA EA10A & EA10B – APPROACHES TO LOWESTOFT FOCUSED 2017 ASSESSMENT

An assessment of the 2017 hydrographic survey of the area: 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 Department for Transport (including the MCA) and the Ministry of Defence (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 local chart datum, defined using the UKHO VORF Model.

EA10A & EA10B – STANFORD CHANNEL, 2017

1. SUMMARY

Changes Detected

- 1.1 The southern end of Holm Sand has moved approximately 50m to the east, but no movement can be seen encroaching into the entrance to Stanford Channel.
- 1.2 Some bedforms on the east side of Newcome Sand have extended further east towards Newcome Sand buoy.
- 1.3 The northerly extent of Newcombe Sand has extended North approximately 140m.

Reasons for Continuing to Resurvey the Area

- 1.4 Depths in the area remain mobile and potentially hazardous vessels with a draught of 3m or more navigating the area and therefore require continued monitoring through 3-year resurveys, with focused areas every 1-year.

Recommendations

- 1.5 The current full area and focused areas adequately cover all areas of mobile seabed so no revision is required at this time.

2. LOCATION

- 2.1 Survey interval at time of resurvey: 3 years full area, 1 years focused.
- 2.2 Area Covered:
 - 2.2.1 Full area: 12.27 km².
 - 2.2.2 Focused area EA10a: 1.38 km²
 - 2.2.3 Focused area EA10c: 2.04 km²

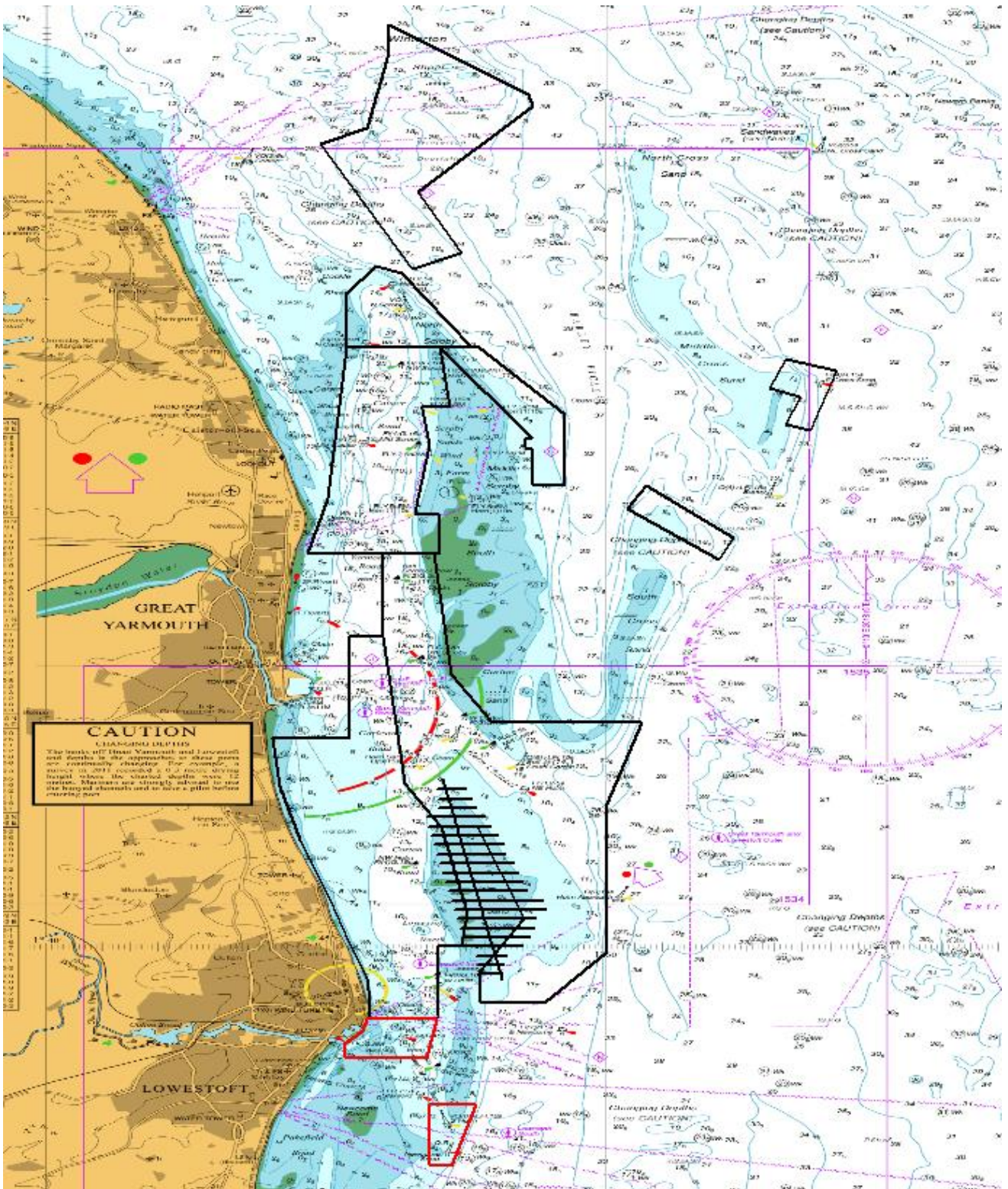


Figure 1 – 2017 East Anglia RRS areas overlaid on BA 1543 with EA10a and EA10b areas in red.

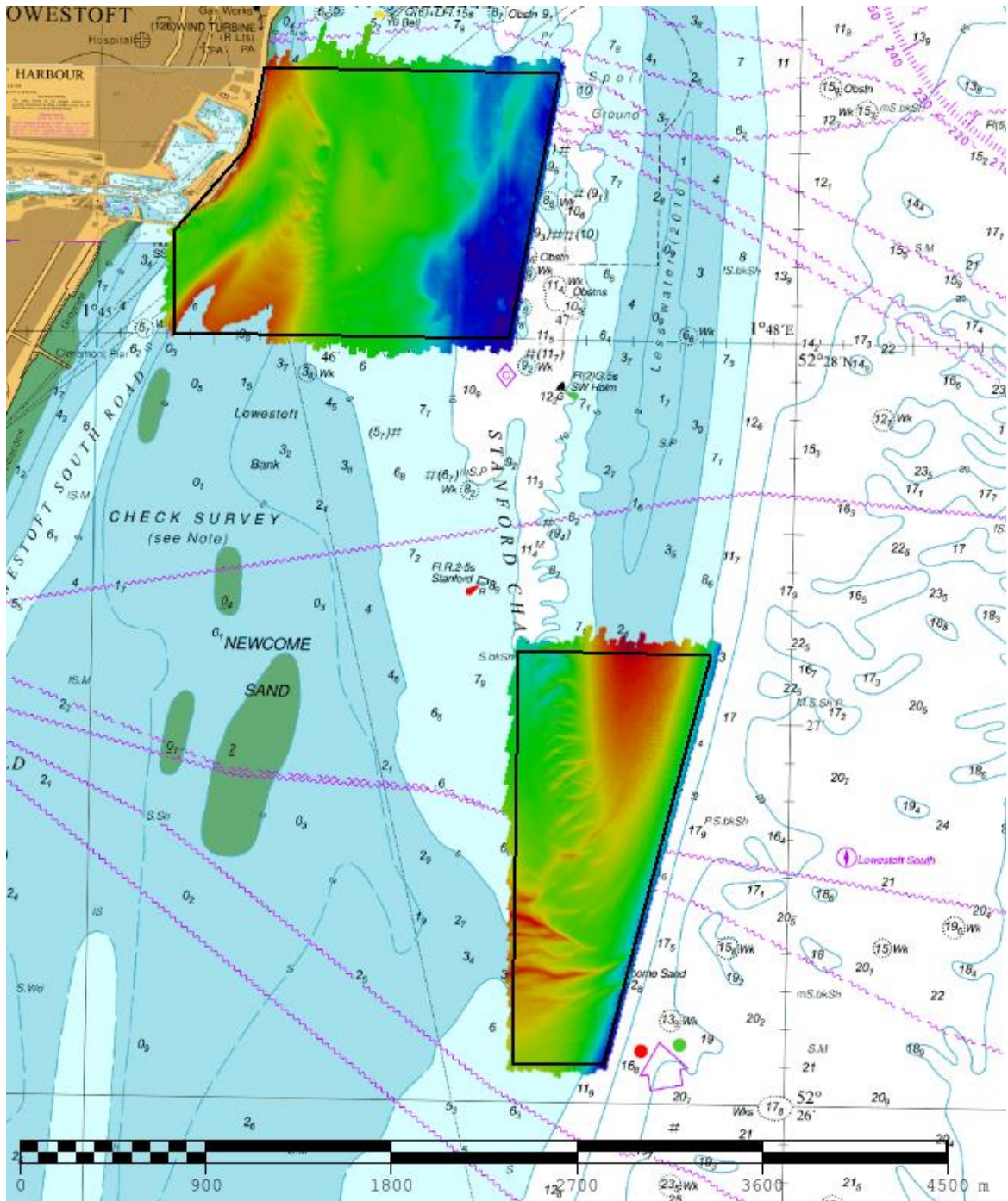


Figure 2 – 2017 survey data sun-illuminated view overlaid on BA Charts 1535 and 1535-1

3. REFERENCE SURVEY DETAIL

- 3.1 Previous full surveys conducted were in September and October of 2012 as part of HI 1397 and September - November of 2016 as part of HI 1521.
- 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 INSPIRE portal and MEDIN Bathymetry Data Archive Centre.

4. COMPARISON SURVEY DETAIL

- 4.1 Focused survey was conducted in November 2017 as part of HI 1545.
- 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 INSPIRE portal and MEDIN Bathymetry Data Archive Centre.

5. DESCRIPTION OF RECENT BATHYMETRIC CHANGE

- 5.1 Since 2016 there has been little bathymetric change, as seen in the difference plot (figure 4). Some bedform movement is evident, but general depths remain consistent.
- 5.2 The north end of Newcome Sand has moved north-west with the 2m contour moving approximately 140m, and the 5m contour encroaching into the entrance channel to Lowestoft by 40m.
- 5.3 The south end of Holm Sand has moved east, with both the 2m and 5m contours moving approx. 50m.
- 5.4 Bedforms on the eastern side of Newcome Sand have extended towards Newcome Sand Lateral buoy.

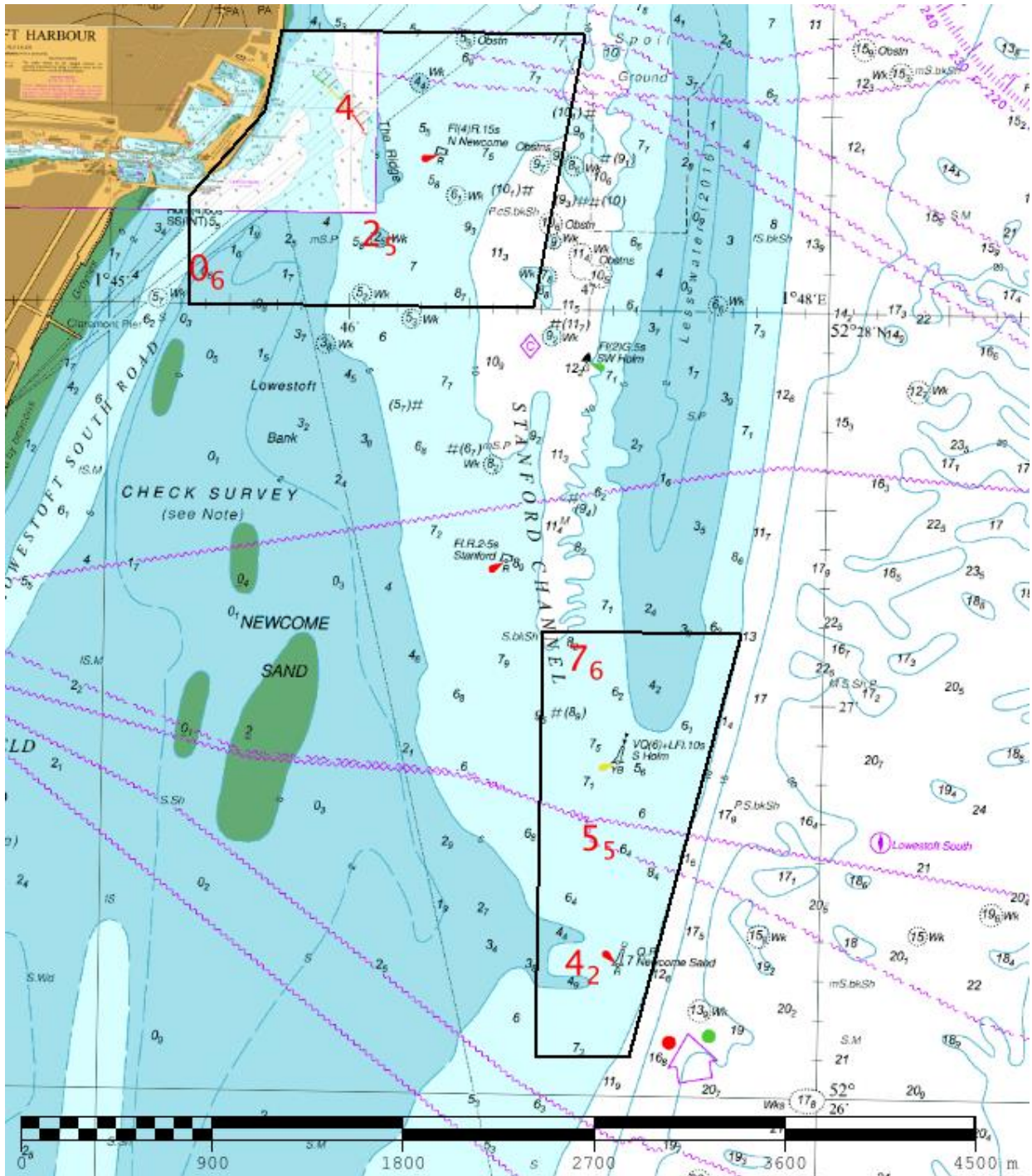


Figure 3 Controlling depths from 2017 survey (shown in red) overlaid on BA Charts 1535 & 1535-1

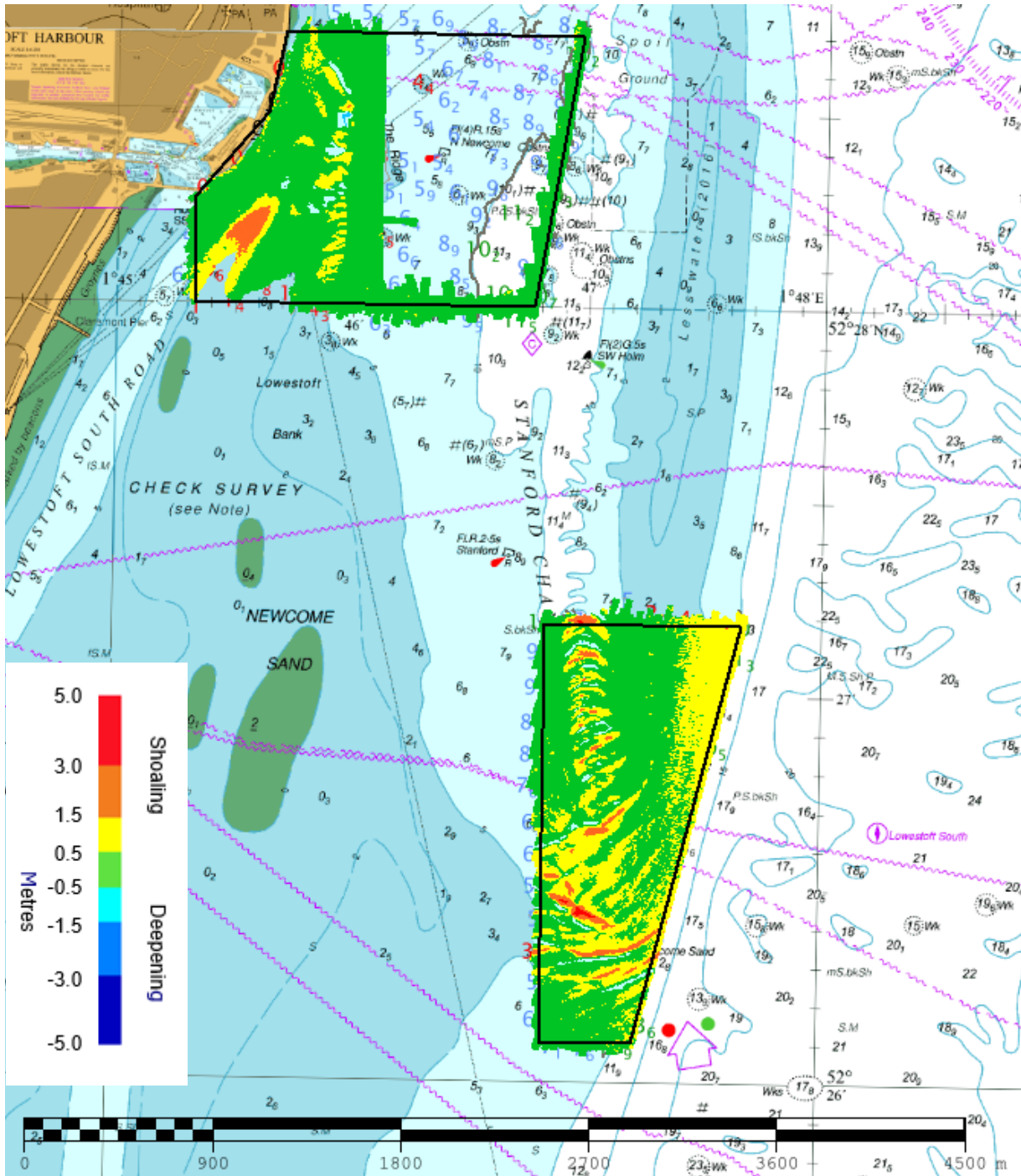


Figure 4 Difference plot 2016 full area survey vs 2017 focused surveys overlaid on BA Charts 1535 & 1535-1

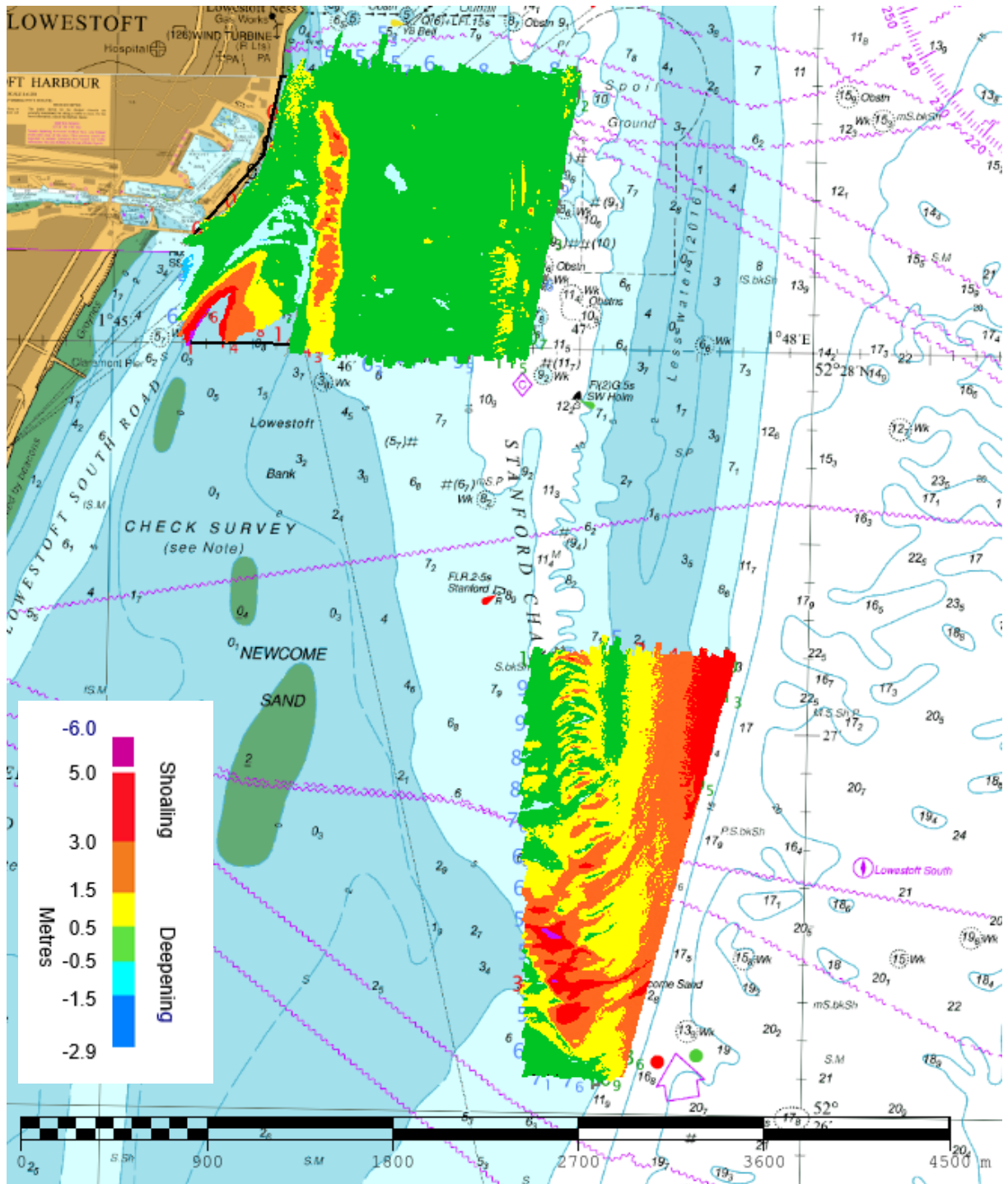
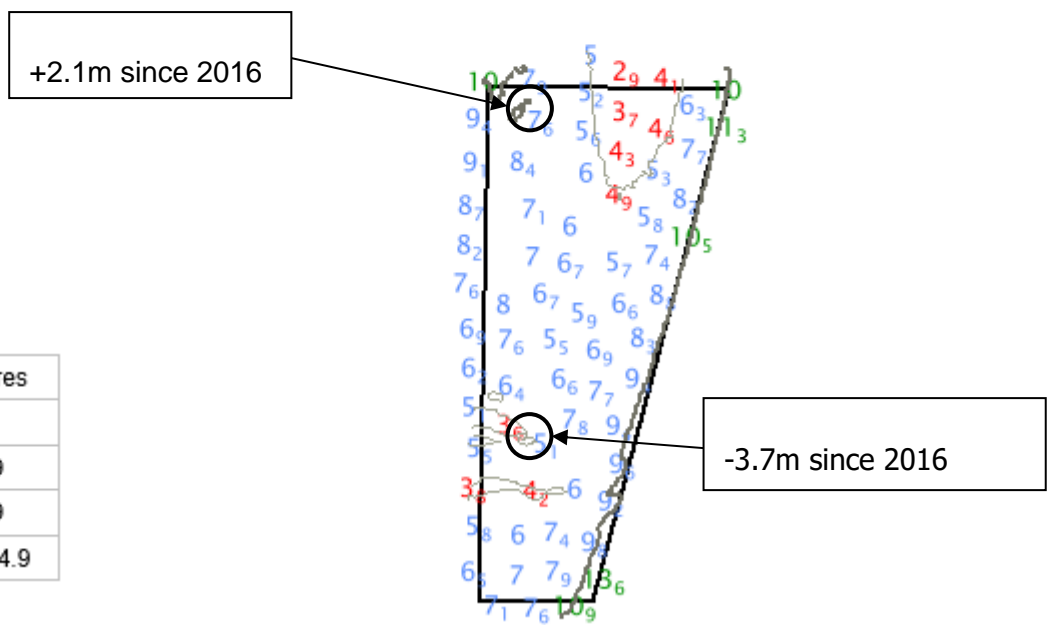
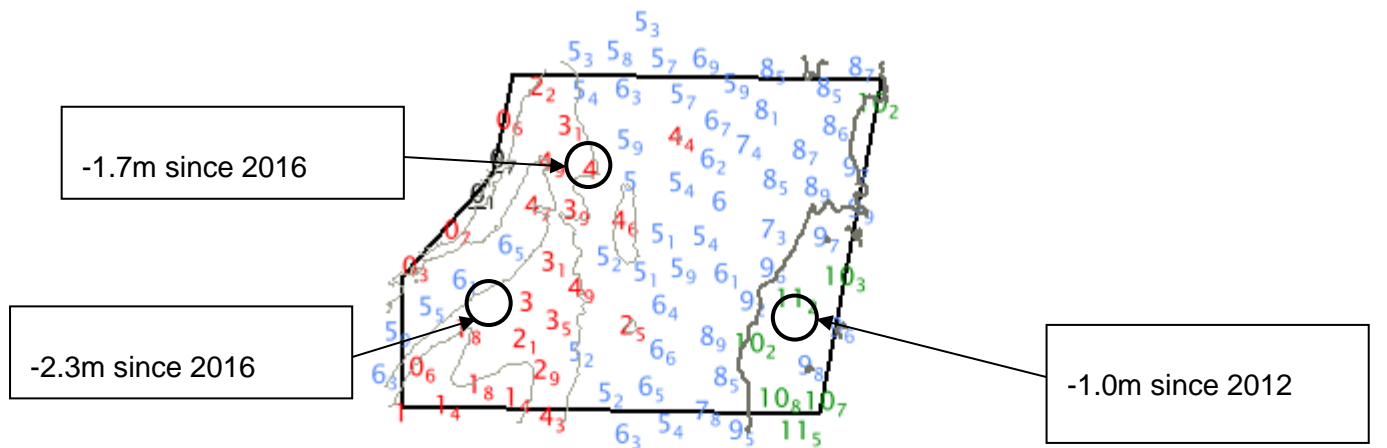


Figure 5 Difference plot 2012 full area survey vs 2017 focused surveys overlaid on BA Charts 1535 & 1535-1



Depths in Metres	
	Drying
	0.0 to 4.9
	5.0 to 9.9
	10.0 to 14.9



Positive values (+) represent deepening. Negative values (-) represent seabed depths becoming shallower.

Figure 6 – Colour Banded Depth Plot from the 2017 Survey with selected depth changes since the 2012 and 2016 full area surveys.

6. RECOMMENDATIONS FOR FUTURE SURVEYS

Survey Interval

- 6.1 The seabed remains mobile in these areas, which could potentially have an impact on shipping, so the 3-year full area and 1-year focused area intervals can continue.

Survey Area

- 6.2 The current full area and focused areas adequately cover all areas of mobile seabed, so no revision is required at this time.