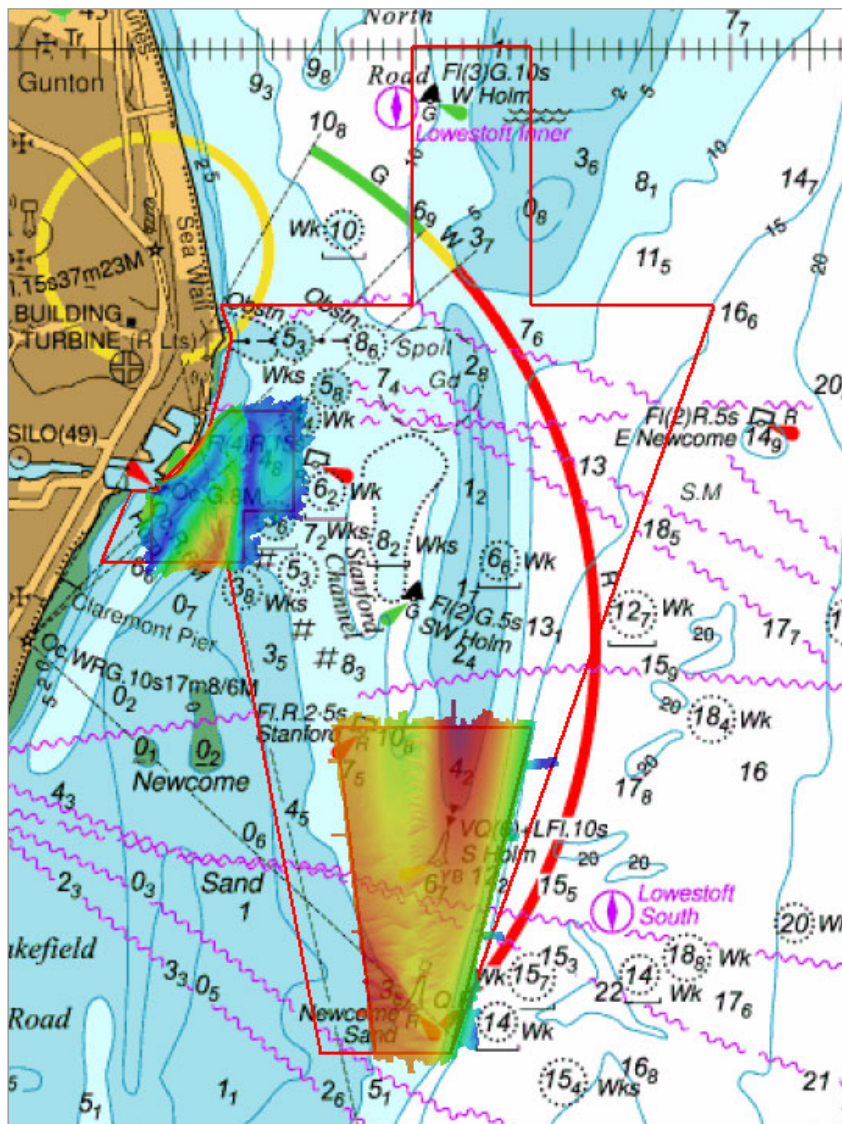




EAST ANGLIA APPROACHES TO LOWESTOFT

SUMMARY ASSESSMENT ON THE ANALYSIS OF
ROUTINE RESURVEY AREA EA10
FROM THE 2013 SURVEY



EAST ANGLIA

APPROACHES TO LOWESTOFT

Summary Assessment EA10/2013

A summary assessment of the 2013 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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APPROACHES TO LOWESTOFT, 2013

1 Introduction

- 1.1 The full area of EA10 is re-surveyed every three years; within that area there are two focused sub-areas (as shown on the front of this report), which are surveyed annually. These focused areas concentrate on the areas of greatest concern, taking into account sediment mobility, depth of water and draught of shipping using the areas.
- 1.2 This summary report looks at the latest focused survey and compares it against the previous survey. For more details on the area, including long-term changes, the more detailed report on the last full 3-year survey (conducted in 2012) should be consulted.

2 Description of the Area

- 2.1 One focused area (Area A) covers the ridge and sandwaves that lie at the southern entrance to Stanford Channel, while the other (Area B) covers the final approach to Lowestoft Harbour.
- 2.2 Sediments in the area are mobile and subject to change as the banks evolve and sandwaves migrate.

3 Survey Data

- 3.1 The 2012 survey was conducted from 22 September to 6 October. The 2013 was conducted from 17 to 26 September and 9 November. Both surveys were conducted in conjunction with other areas. In both surveys, the Vertical Offshore Reference Frame (VORF) and GPS heighting were used to reduce depths to Chart Datum.
- 3.2 A surface difference plot, showing changes between the two surveys is at [Annex A](#).

4 Changes since the 2012 Survey

Entrance to Stanford Channel (Area A)

- 4.1 Depths in the entrance to Stanford Channel remain broadly similar to the 2012 survey, but the 5 metre contour marking the southern limit of Holm Sand has extended in a south-southeast direction by 150 metres. This is shown in [Annexes B](#) and [C](#).

Final Approach to Lowestoft (Area B)

- 4.2 Depths across the area remain broadly similar to those found in the 2012 survey. The narrow ridge crossed on the final approach, as delimited by the 5 metre contour, has continued its gradual seaward expansion, as shown in [Annexes B](#) and [C](#). Slight shoaling has occurred close south of the harbour entrance and in the south of the survey area. In June 2014, Lowestoft Port Authority reported shoaler depths to the south of the area within Lowestoft South Road and over Newcome Sand. These areas will be covered by the 2014 survey of area EA12.

5 Implications for Shipping

- 5.1 The buoyed entrance to Stanford Channel and final approach to Lowestoft have changed little since they were last surveyed and present no new concerns to shipping. The main shipping routes are shown in [Annex D](#).

6 Recommendations

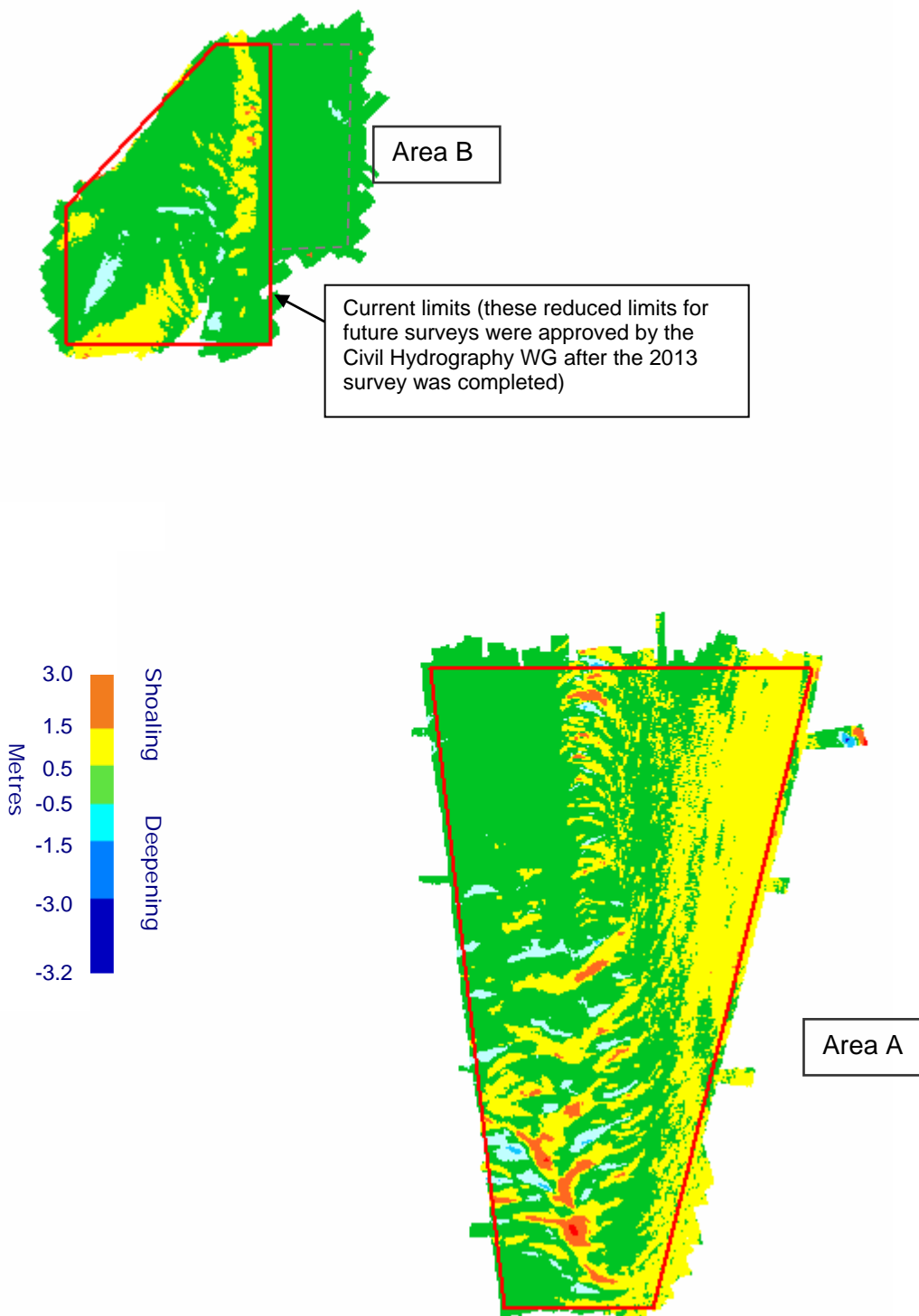
Entrance to Stanford Channel (Area A)

- 6.1 The western side of the area has change little in recent years and changes to the southern extent of Holm Sand are away from the shipping route. It is recommended that the annual survey frequency is retained, but with reduced limits as shown in Annex D. This would result in a 40% reduction in the size Area A.

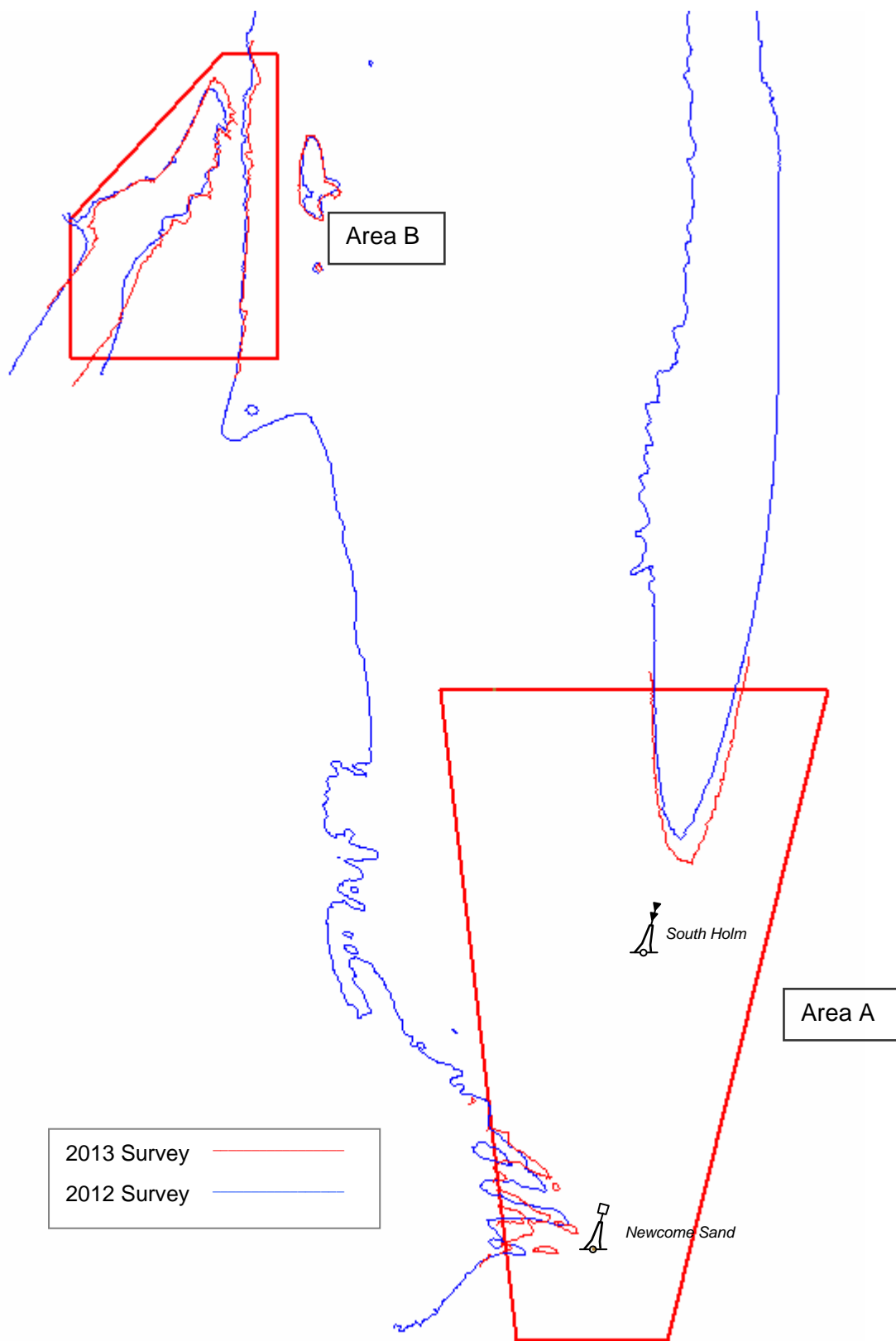
Final Approach to Lowestoft (Area B)

- 6.2 The survey frequency and limits are considered appropriate. The area to the south of the Lowestoft plan (chart 1535) lies away from the shipping route, but with shoaling of up to 2 metres over the last 3 years due to bank migration, and with use of the area by leisure craft it is recommended that the annual frequency is retained. A Civil Hydrography WG meeting held in January 2014 approved a reduction in the area, removing the stable eastern part of the area, as shown in Annex A.

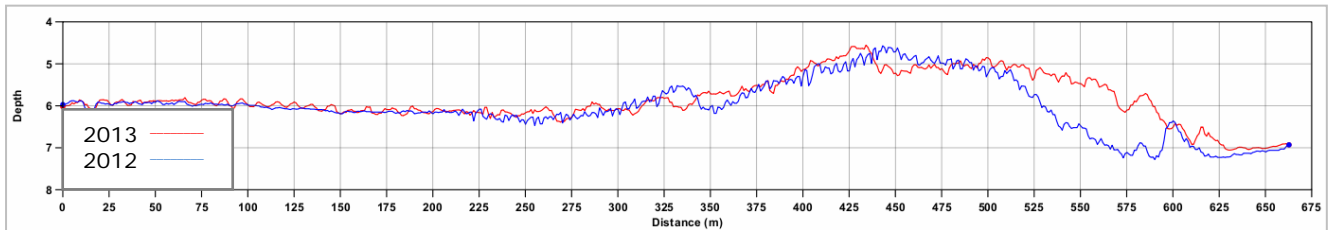
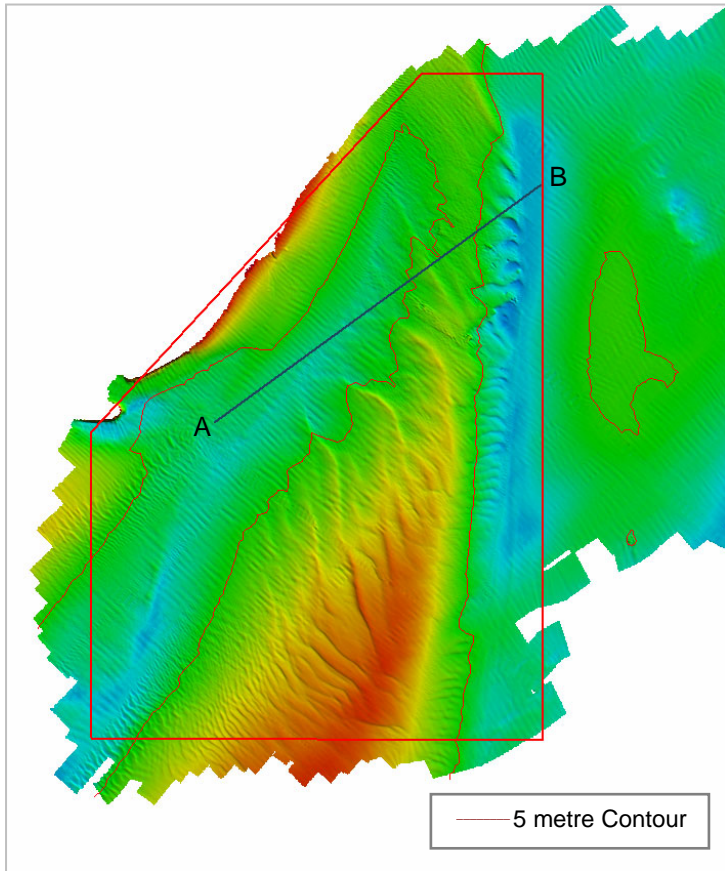
SURFACE DIFFERENCE LAYER SHOWING BATHYMETRIC CHANGES
BETWEEN THE 2012 AND 2013 SURVEYS



COMPOSITE DIAGRAM OF THE 5 METRE CONTOUR
FROM THE 2012 AND 2013 SURVEYS



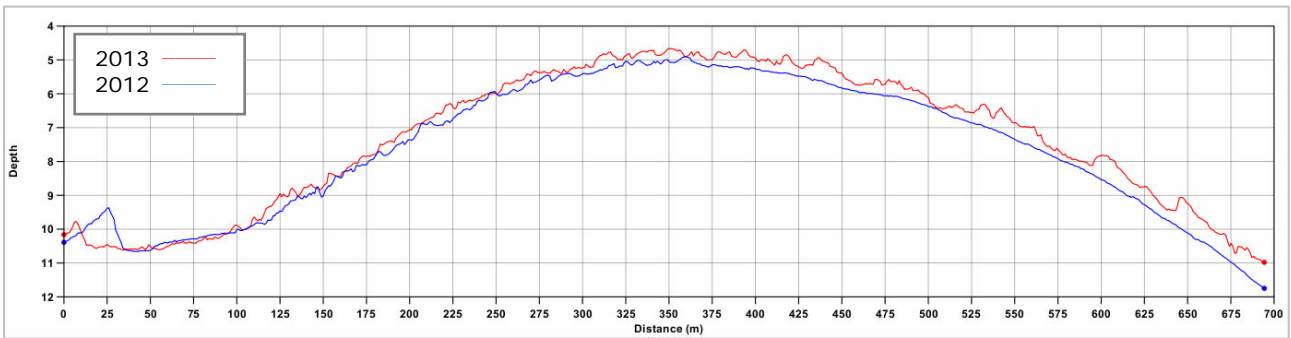
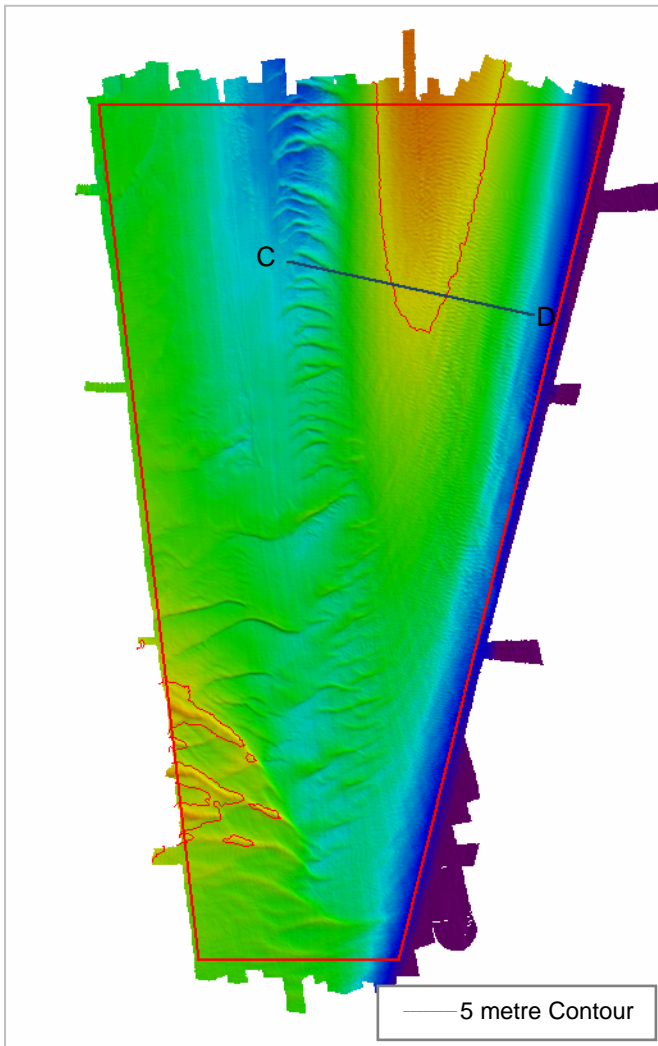
CROSS-SECTIONS FROM THE 2012 AND 2013 SURVEYS



A

Profile A-B

B



C

Profile C-D

D

PROPOSED REVISED LIMITS

