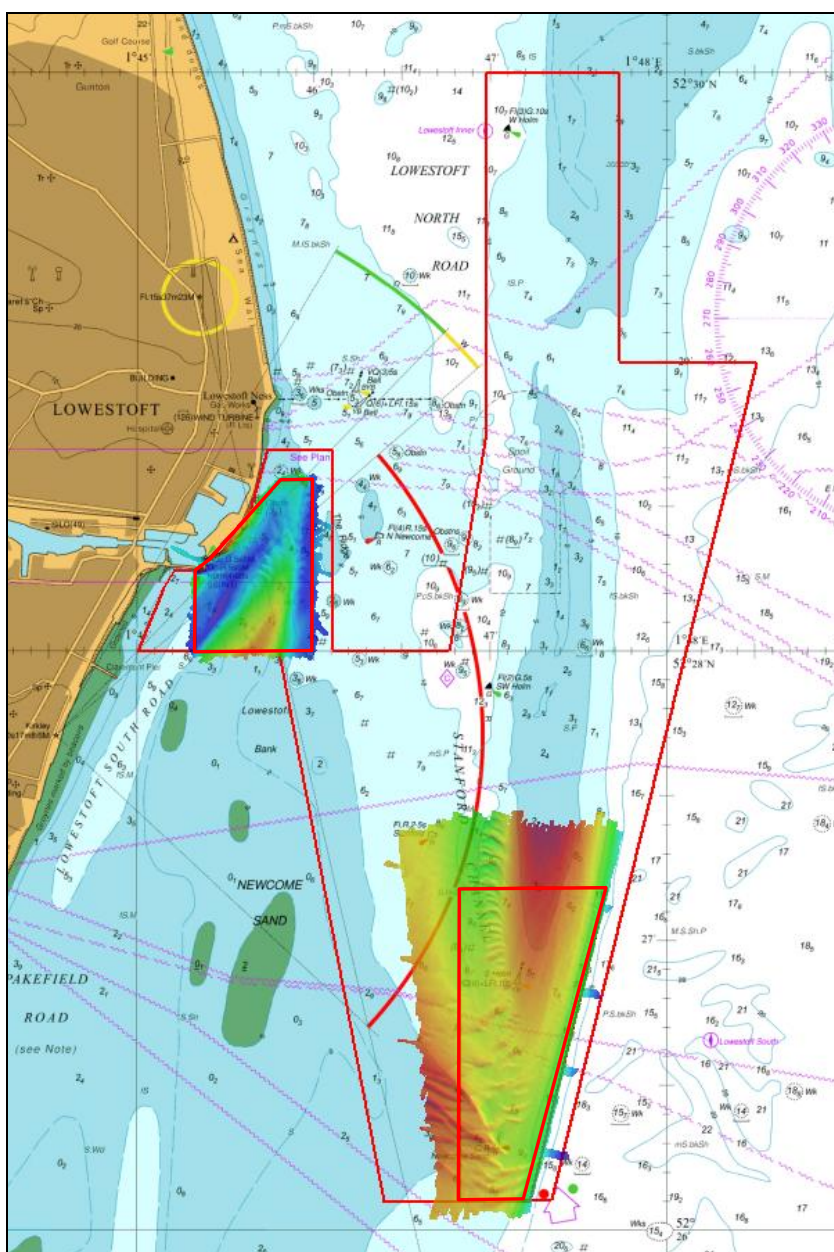




United Kingdom
Hydrographic Office

EAST ANGLIA APPROACHES TO LOWESTOFT

SUMMARY ASSESSMENT ON THE ANALYSIS OF
ROUTINE RESURVEY AREA EA10
FROM THE 2014 SURVEY



August 2015

EAST ANGLIA

APPROACHES TO LOWESTOFT

Summary Assessment EA10/2014

A summary assessment of the 2014 hydrographic survey of the area: to monitor recent seabed movement; to identify any implications for shipping; and to make recommendations for future surveys.

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.

This material is protected by Crown Copyright. It may be downloaded from the UK Hydrographic Office's (UKHO) web site and printed in full for personal or non-commercial internal business use. Extracts may also be reproduced for personal or non-commercial internal business use on the condition that the UK Hydrographic Office is acknowledged as the publisher and the Crown is acknowledged as the copyright owner.

Applications for permission to reproduce the material for any other purpose (including any distribution of the material or extracts to third parties) can be made interactively on the UKHO's web site (www.ukho.gov.uk), by e-mail to intellectualproperty@ukho.gov.uk or in writing to Intellectual Property, UK Hydrographic Office, Admiralty Way, Taunton, Somerset, TA1 2DN.

APPROACHES TO LOWESTOFT, 2014

1 Introduction

- 1.1 The full area of EA10 is re-surveyed every three years; within that area two focused sub-areas (as shown on the front of this report) 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. A recommendation to reduce Area A limits by 40% was approved by the Civil Hydrography Working Group in December 2014, with those limits shown in this report.
- 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 2013 was conducted from 17 to 26 September and 9 November. The 2014 survey was conducted from 27 July to 14 August. 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.

4 Changes since the 2013 Survey

- 4.1 A surface difference plot, showing changes between the two surveys is at [Annex A](#). Changes in the 5-metre contour are shown in [Annex B](#).

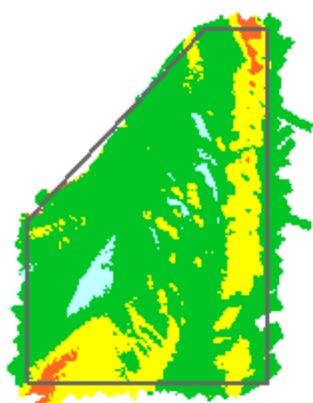
Entrance to Stanford Channel (Area A)

- 4.2 Depths in the entrance to Stanford Channel remain broadly similar to the 2013 survey. The minimum depth in the buoyed entrance remains at 6.7 metres over the same sandwave, which has migrated 30 metres in a southeast direction. A depth of 6.8 metres is also found 280 metres to the southeast of this, 50cm shoaler than depths in the area in the 2013 survey. The two sandwaves are shown in [Annex C](#) profile C-D.
- 4.3 Sandwaves to the south of the entrance, lying to the west and northwest of Newcome Sand buoy, have extended further into the channel, resulting in shallower depths. The sandwave closest to the entrance has a minimum depth of 4.5 metres charted, in depths of around 6.5 metres in the 2013 survey. This migration of the sandwave field is shown in [Annex C](#) profile E-F.
- 4.4 The 5-metre contour delimiting the southern end of Holm Sand has extended 70 metres to the south, but over a gentle slope with little change in depth. The bank has however extended seawards, as shown in [Annex B](#).

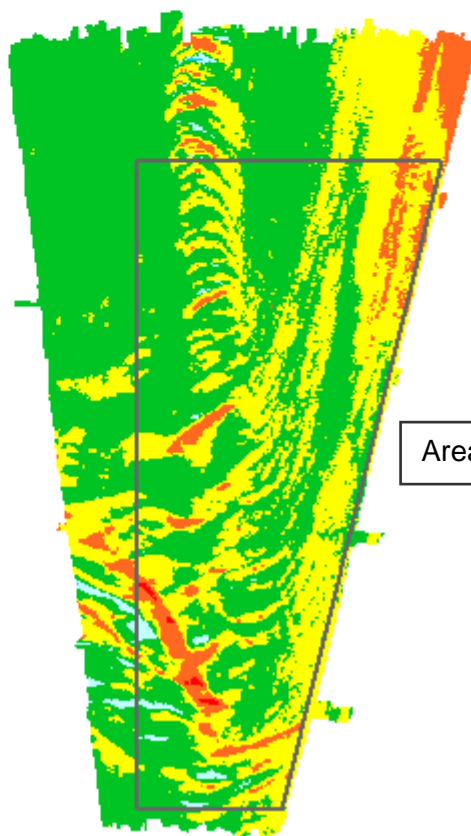
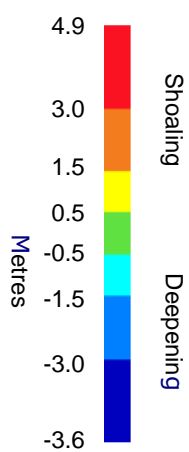
Final Approach to Lowestoft (Area B)

- 4.5 In the far north of Area B the shoal inshore area has expanded seawards and an overlying ridge has shoaled. The minimum depth along the northern edge of Kirkley

SURFACE DIFFERENCE LAYER SHOWING BATHYMETRIC CHANGES
BETWEEN THE 2013 AND 2014 SURVEYS

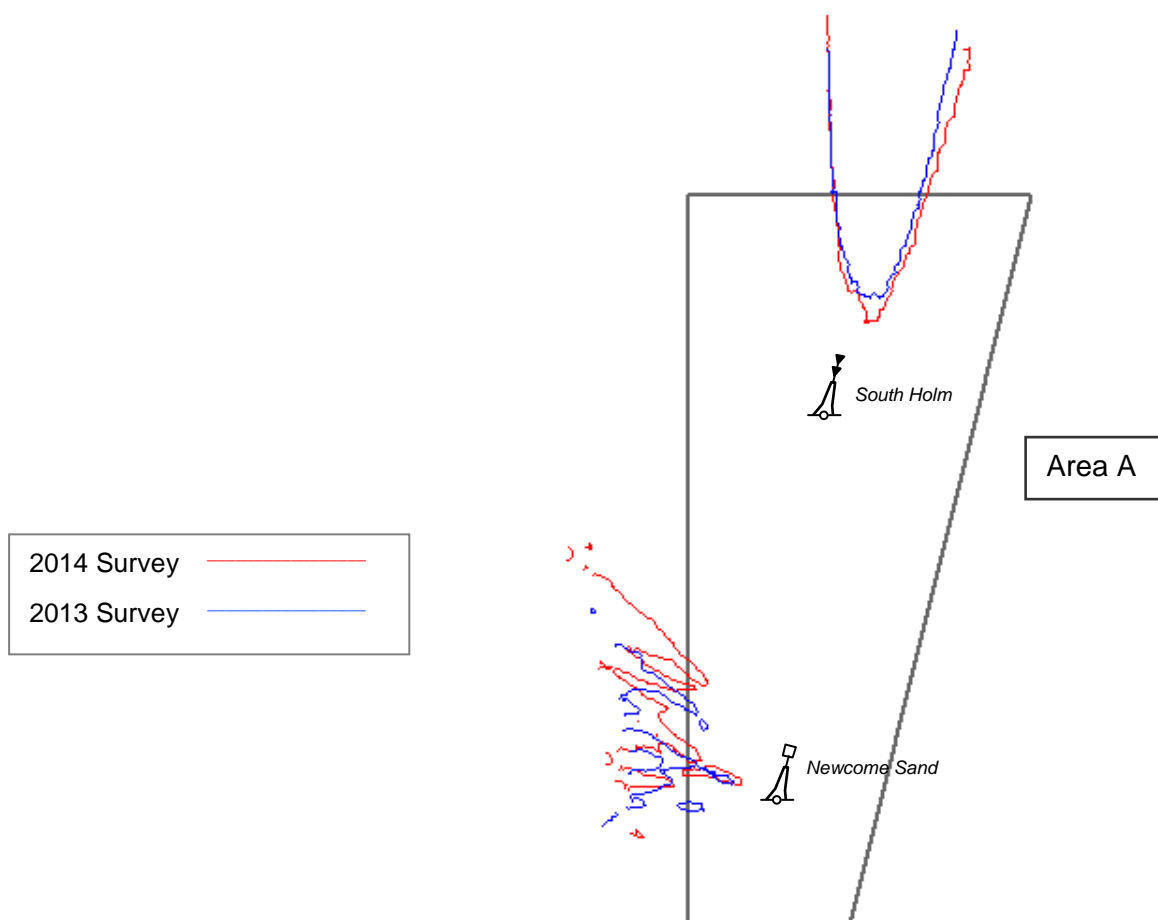
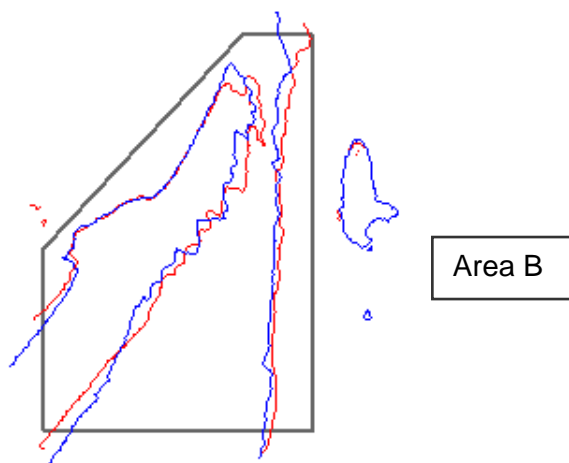


Area B

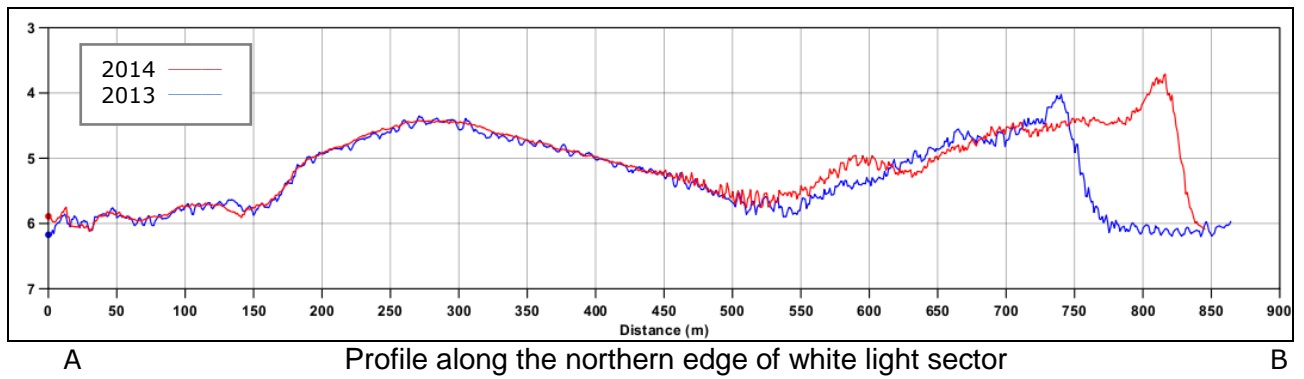
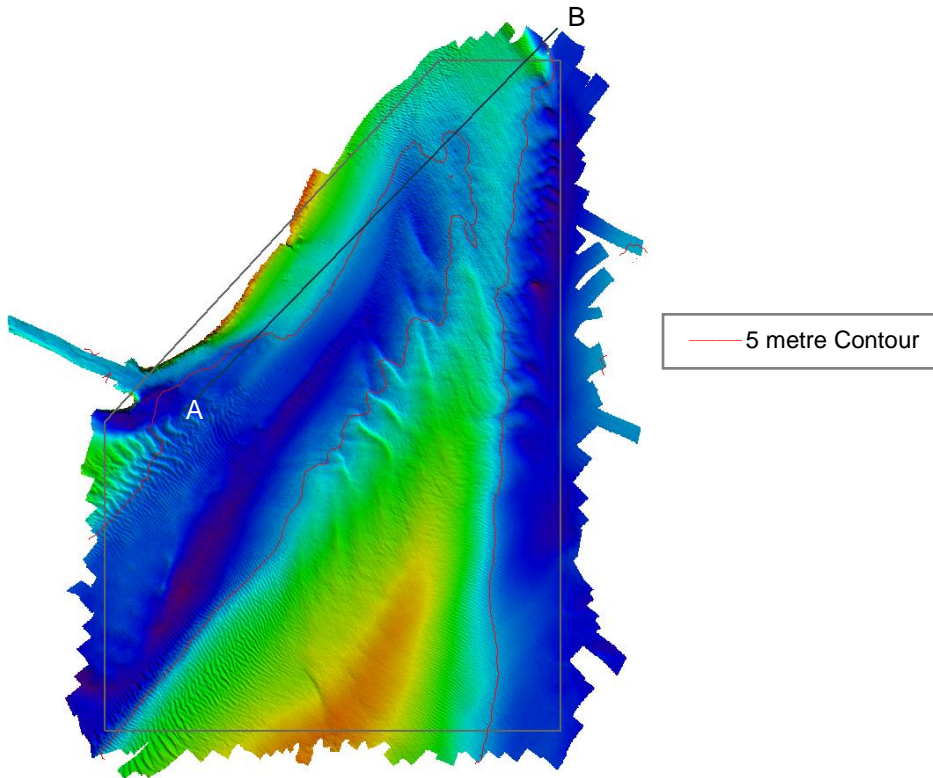


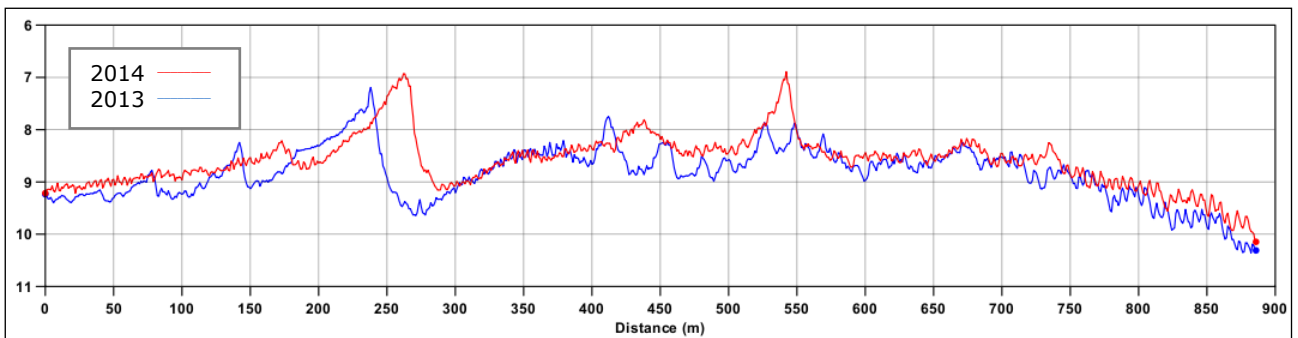
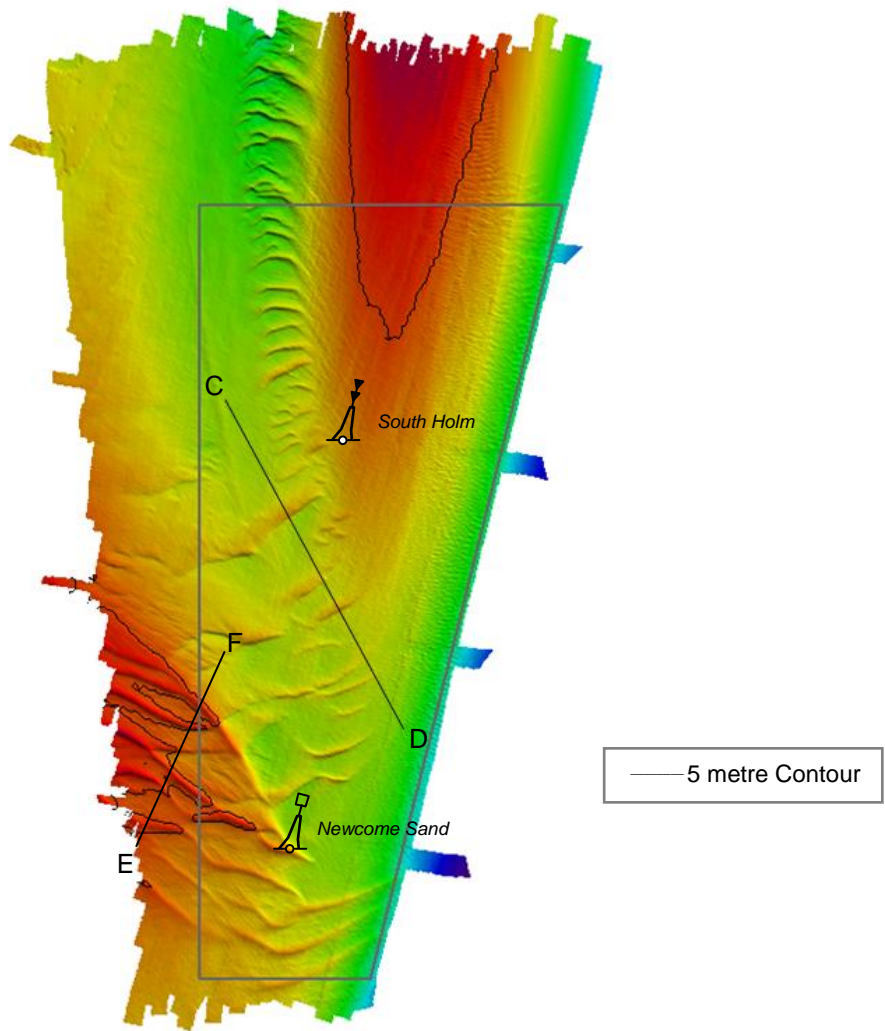
Area A

COMPOSITE DIAGRAM OF THE 5 METRE CONTOUR FROM THE 2013 AND 2014 SURVEYS



CROSS-SECTIONS FROM THE 2013 AND 2014 SURVEYS

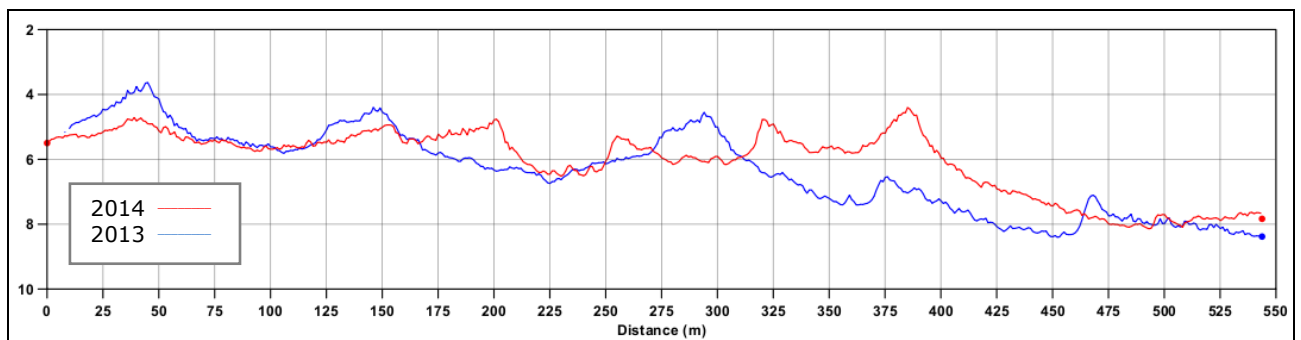




C

Profile C-D

D



E

Profile E-F

F