

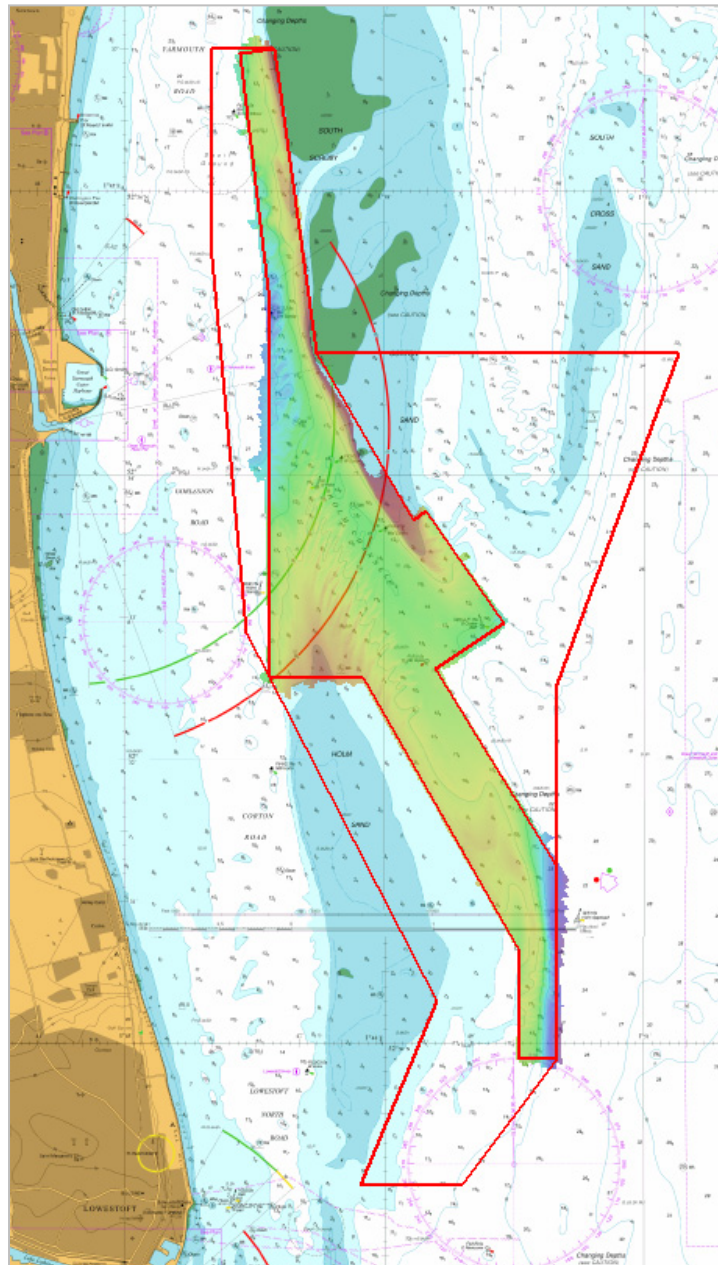


United Kingdom  
Hydrographic Office

## EAST ANGLIA

## HOLM CHANNEL

SUMMARY ASSESSMENT ON THE ANALYSIS OF  
ROUTINE RESURVEY AREA EA9  
FROM THE 2013 SURVEY



June 2014

# EAST ANGLIA

## HOLM CHANNEL

### Summary Assessment EA9/2013

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.

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](http://www.ukho.gov.uk)), by e-mail to [intellectualproperty@ukho.gov.uk](mailto:intellectualproperty@ukho.gov.uk) or in writing to Intellectual Property, UK Hydrographic Office, Admiralty Way, Taunton, Somerset, TA1 2DN.

## **HOLM CHANNEL, 2013**

### **1 Introduction**

- 1.1 The full area of EA9 is re-surveyed every 3 years; within which a focused area is surveyed annually (as shown on the front of this report). This focused area concentrates on the area 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 of EA9 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 2011) should be consulted.

### **2 Description of the Area**

- 2.1 The focused area covers a buoyed approach to Great Yarmouth through Holm Channel. Good depth of water is available through the buoyed route in Holm Channel. Sandwaves exist along the western side of Holm Channel, extending across the northern end of Holm sand.
- 2.2 Vessels drawing up to 7.5 metres are known to use the route. East Port Great Yarmouth can accommodate vessels up to 10.0 metres draught, with use including general cargo and offshore sector vessels.

### **3 Survey Data**

- 3.1 The 2012 survey was conducted on 21 and 22 September, when slight conditions were experienced. The 2013 survey was conducted from 20 to 26 September and 7 to 9 November, when smooth to slight conditions were experienced. In both surveys, the Vertical Offshore Reference Frame (VORF) and GPS heighting were used to reduce depths to Chart Datum.

### **4 Changes since the 2012 Survey**

- 4.1 Changes are shown in the Surface Difference plot at [Annex A](#), cross-sections at [Annex B](#) and 10 metre contour comparison at [Annex C](#).

#### **Holm Channel**

- 4.2 Deep water, with depths in excess of 10 metres, continues to be available through the buoyed channel. However, in the southern part of Holm Channel accretion has taken place, with depths shoaling by up to 2 metres in the far southeast. Depths in this area generally remain in excess of 13 metres, but the changes seen may indicate a shift in the sediment regime in the area, which might be of concern in the future.
- 4.3 In the far northwest of the channel deepening has continued.

#### **Holm Sand**

- 4.4 The overall limits remain little changed, but with ongoing reworking of an extension to the bank in the southeast of the area.

## **Corton Sand**

- 4.5 The southern extent of Corton Sand remains in broadly the same position, but the western side of the bank has continued its gradual westward migration into Holm Channel, extending by up to 90 metres since the 2012 survey.

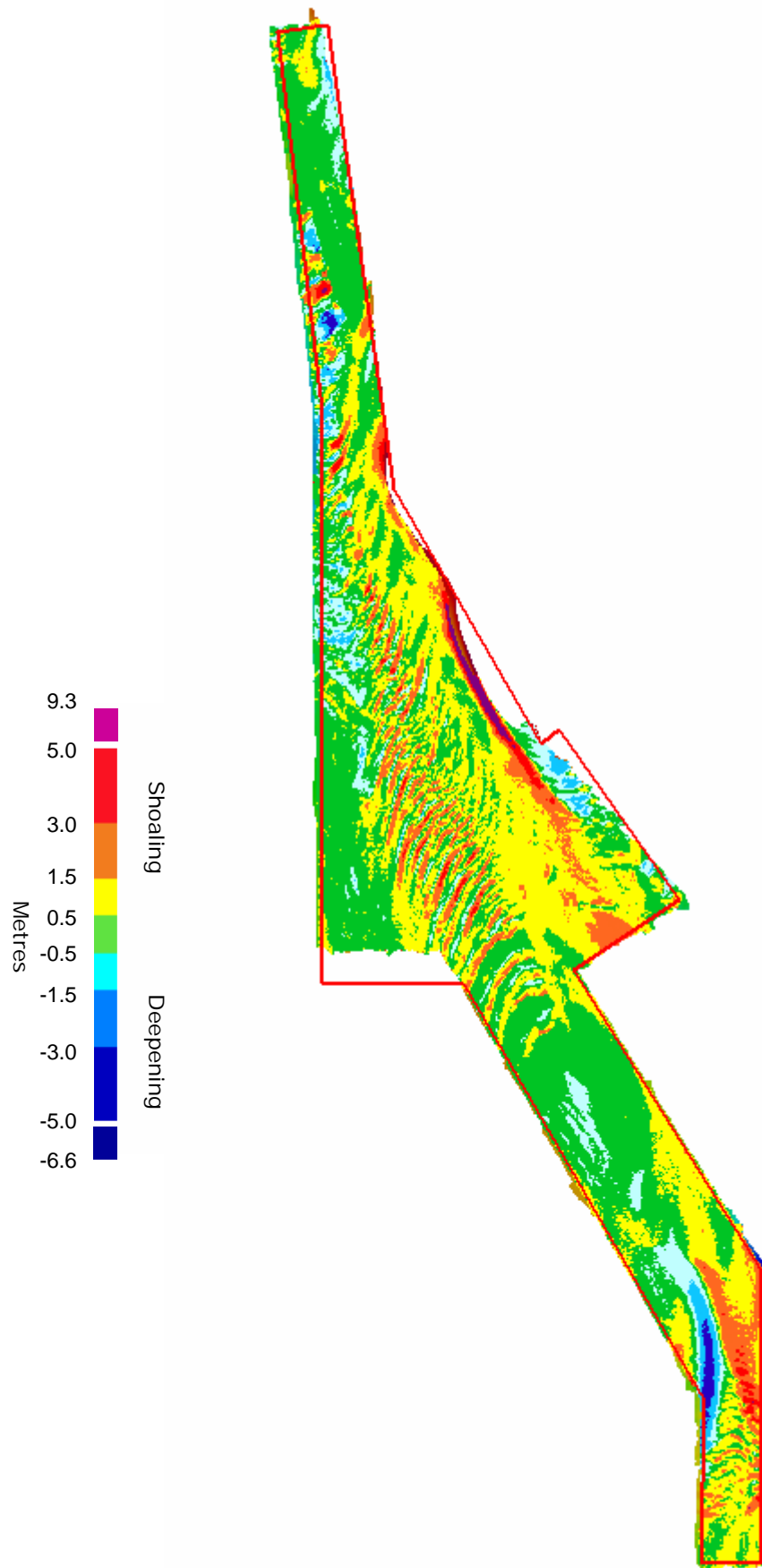
## **5 Implications for Shipping**

- 5.1 The shoal areas are adequately marked by the current buoyage, and changes are of no direct concern to vessels keeping to the buoyed route. The expansion of Corton Sand towards Mid Corton buoy needs careful monitoring.

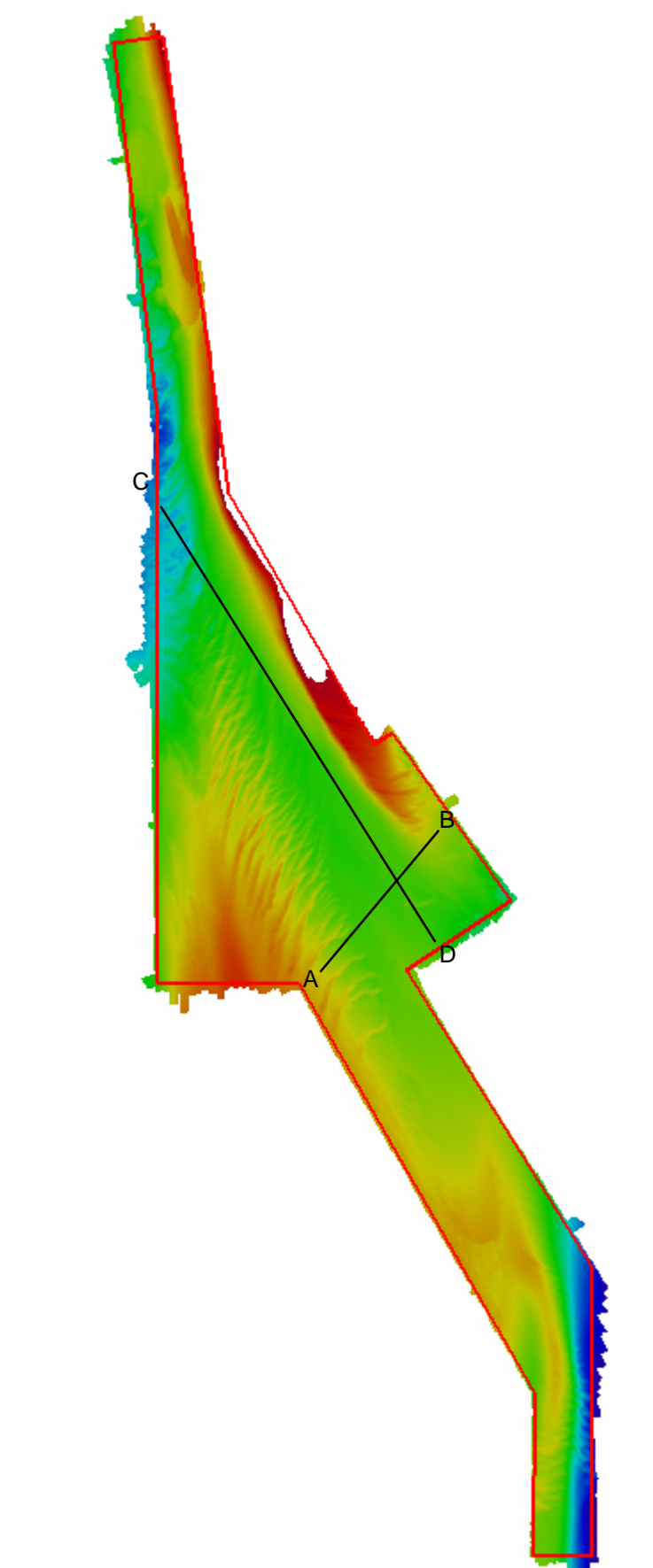
## **6 Recommendations**

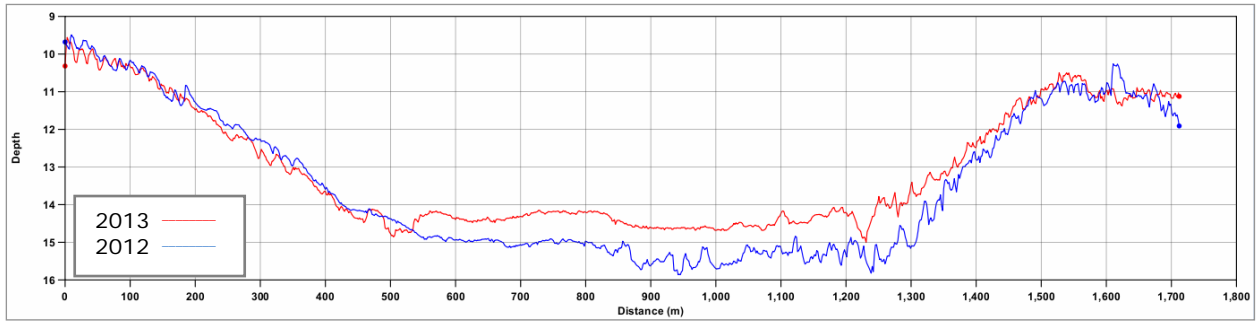
- 6.1 Although good depth of water is available in the buoyed route through Holm Channel, changes to sandwaves and the banks just outside of the route support annual resurveying, particularly in the areas west of Holm Approach buoy and east of Mid Corton buoy. The limits should be revised slightly to remove deep areas subject to little change on the western side, resulting in a reduction in area of 13%, as shown in [Annex D](#).

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



SURFACE FROM THE 2013 SURVEY  
AND  
CROSS-SECTIONS FROM THE 2012 AND 2013 SURVEYS

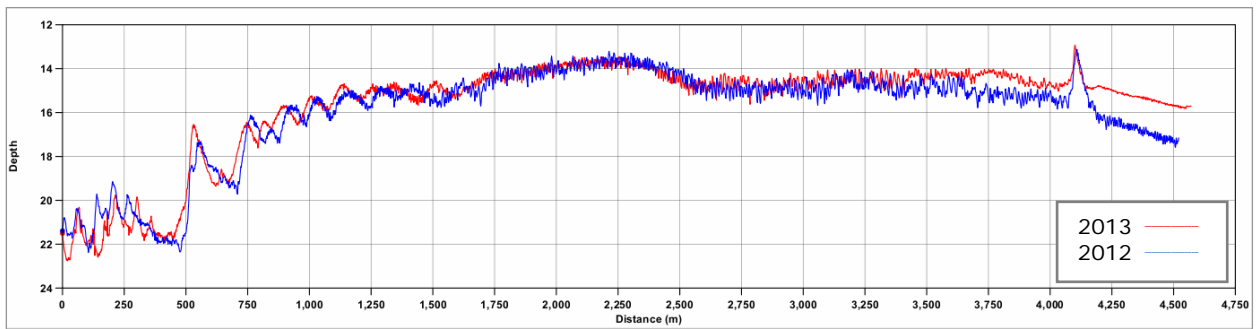




A

Profile A-B

B

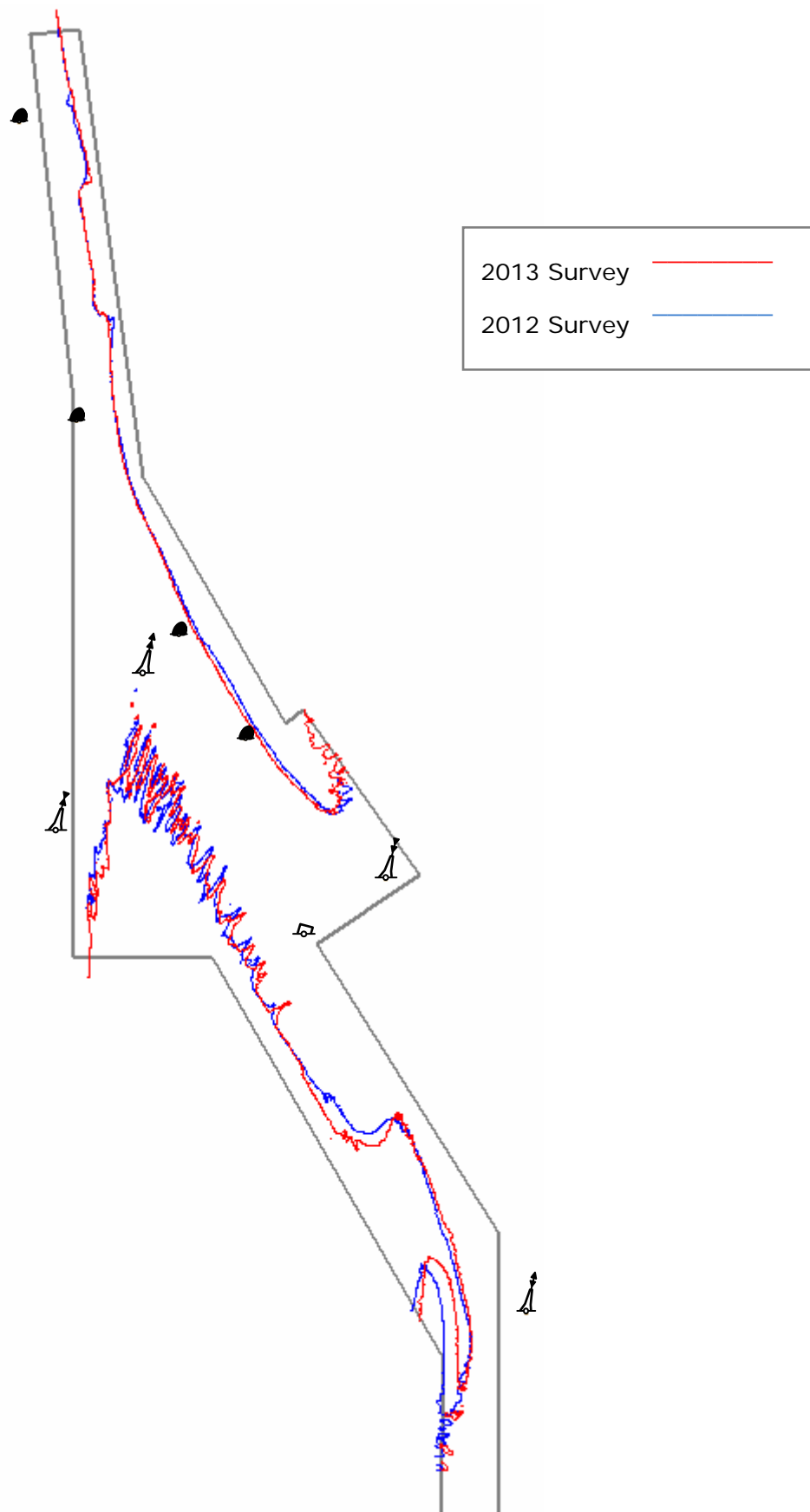


C

Profile C-D

D

COMPOSITE DIAGRAM OF THE 10 METRE CONTOUR  
FROM THE 2012 AND 2013 SURVEYS





PROPOSED REVISED LIMITS FOR THE ANNUAL FOCUSED AREA

