



HUMBER WORK BOATS LTD

## Hydrographic Surveying Services

Experience - UK, Europe and North Africa



### Bathymetry

Navigation, Construction and Environmental

### Single Beam echo sounder surveys

small to medium surveys tailored to clients requirements.

### Multibeam swathe echo sounder surveys

large data sets, high data coverage

### MiniSweep echo sounder surveys

a cost effective solution with high data coverage.

### Side Scan Sonar

Object detection, seabed features

### Post Processing

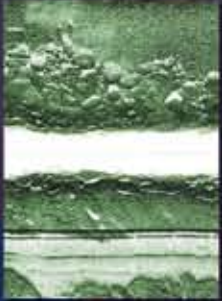
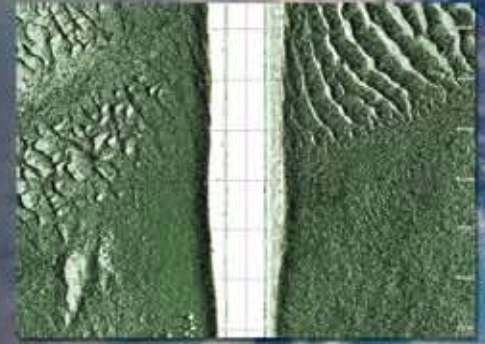
Chart preparation, Visualisation, Volume reporting

### Construction Support

RTK GPS positioning



Humber Work Boats Ltd marine survey department has 10 years experience of delivering hydrographic services to an established international client base. The skills and services provided using the latest hydrographic survey equipment available include bathymetric surveys, side scan sonar imaging, sub-bottom profiling and environment monitoring. All survey activities are planned for the full cycle of the project from data acquisition to data processing through to final products and reporting to ensure the client receives the data they require.



**Experienced gained to date includes**

Single beam echo sounder surveys for UK port operators for navigation and dredging support. Navigation charts and data sets have been commissioned and supplied to Port Authorities, with charts and data sets for pre, post and interim surveys to monitor dredging works.

Side scan sonar imaging for object detection and clearance surveys. Using the side scan sonar we have supplied

images and reports to provide proof of clear anchorage for offshore rigs and scour condition reports around port assets.

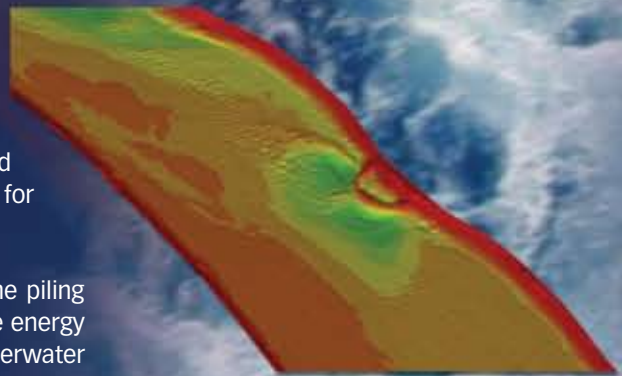
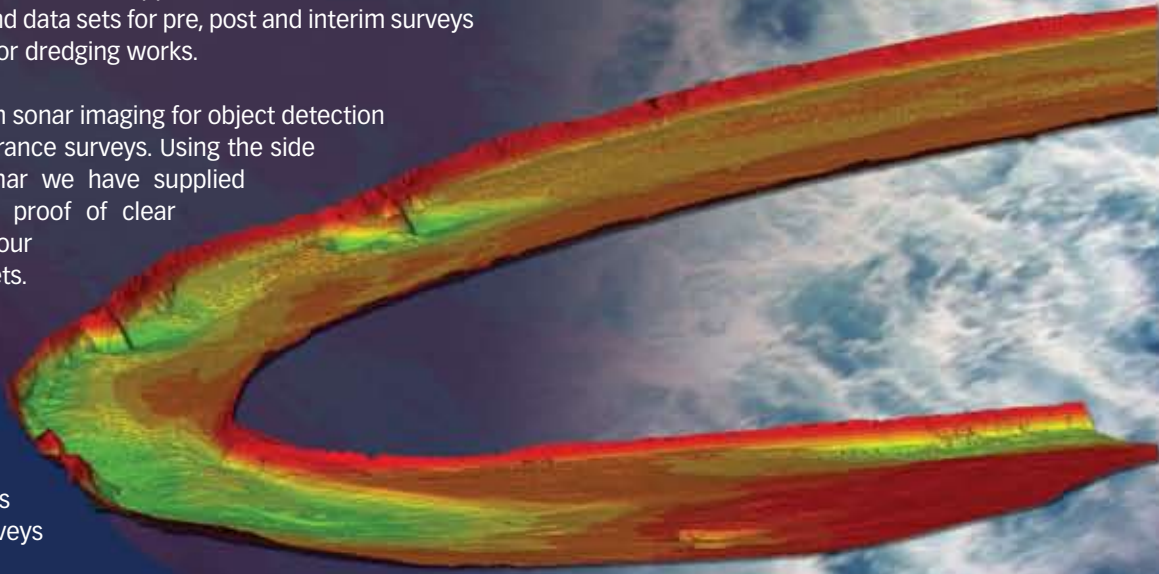
Single beam bathymetry and side scan sonar imaging for international construction companies in support of oil and gas industry. We have provided survey support and progress reports as well as laid surveys drawings for pipe lay operations.

Mini Sweep echo sounder surveys and Multi Beam echo sounder surveys to support UK flood defence teams. On one project we have collected 43Kkm of river bathymetric survey data, processed and delivered to the Environment Agency.

Geophysical pipeline investigations in the UK for utility companies. The surveys involved acquiring bathymetry, side scan imagery and 'pinger' sub-bottom data to assess depth of burial of the pipelines for stability analysis.

RTK positioning for construction projects including setting out marine piling projects, support and reporting on cable lay operations for renewable energy projects, positioning for dive support and anchor handling near underwater utility assets.

Total station and VRS RTK condition survey, positioning and construction project setting out on various projects around the UK.



Humber Work Boats Ltd own and operate a range of survey vessels from MCA coastal certificated vessels to small River road transportable vessels. Vessels have also been containerised and shipped abroad for longer term survey contracts.

Humber Work Boats Ltd vessels are also available for direct charter including experienced crew. The vessels have been involved in 3rd party bathymetry survey work and geotechnical ground investigations including coring and grab sampling.



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### Recent Project

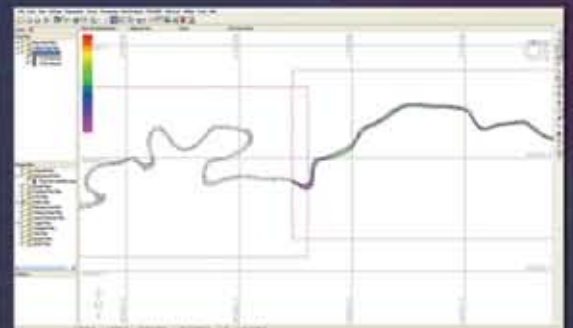
**Client:** Environment Agency, North East  
**Contract:** River Aire Hydrographic Survey  
**Field Work:** 3 weeks March 2011

Brief:- Hydrographic survey of the River Aire (33km) and Tidal River Ouse (9.5km) channels, full width bathymetric survey to identify any slips or bank deformations to support ongoing monitoring of the Environment Agency flood banks.

HWB Min Sweep System installed on HWB road transportable waterway survey boat launched from local slipways above and below weir obstructions, working in water depths of 0.3m-15m.

The 5 channel mini Sweep system covered 4m swathes of the River Aire at 1m transducer centres, a minimum of 6 runs were made over the 33km length, extra lines were ran in the wider areas of the channel, resulting in more than 1000km of single beam echo sounder data.

HWB John Elliot survey boat with over the side mounted GeoSwath Plus swath echo sounder, mobilised from North Killingholme Haven to the survey area at Goole, working tidal High waters to acquire the best coverage and quality of data possible.



HWB John Elliot survey boat

HySweep Mini sweep data acquisition

All processing and reporting carried out to the clients satisfaction, on time and within budget. Data presentation of xyz data sets and 120 cross sections in AutoCAD format.



Humber Work Boats Ltd have continued to invest in survey equipment over the last 10 years.

Trimble RTK GPS units with GNSS/GLONASS

Single beam dual frequency RESON echo sounders

Geo Acoustics side scan Sonar and acquisition and processing unit.

Ross Smart Sweep 5 channel echo sounder system

Hydro Pro, Hypack and Terramodel software for acquisition, processing and reporting.

Van Veen Grab



Hydrographic survey experience to date has been gained over a wide geographical area, from our UK base on the River Humber to mainland Europe and through to North Africa. From small inland waterways to large alluvial river estuaries, and from shallow inshore waters to Mediterranean coastal depths up to 100 meters we have a proven track record. We have experienced some of the worlds more challenging environments from extremes of climate and weather conditions to differing local cultures.



## HUMBER WORK BOATS LTD

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