

JIBS Joint Irish Bathymetric Survey

DOE Environment & Heritage Service



Joe Breen, Environment & Heritage Service

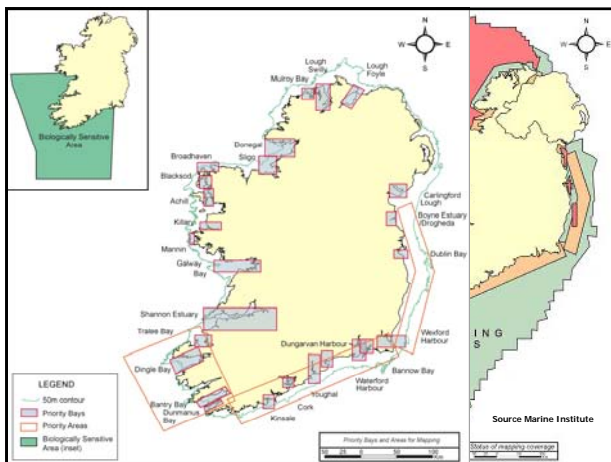
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JIBS Joint Irish Bathymetric Survey

What will JIBS achieve

- Comprehensive coverage of sea bed from Tory Island to Torr Head
- Surveys to be conducted to IHO 'Order 1'
- MCA contractors & Marine Institute project managed by EHS
- Survey area ground truthed to produce seabed texture charts
- Data to be provided via WWW
- Dissemination of results to interested partners
- To foster closer co-operation between UK & RoI
- To provide data to UK Hydrographic Office to enable update nautical charts for both UK and RoI to improve safety for mariners

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Project Plan

- WP1, Identification of priority areas
- WP2, Scoping of survey
- WP3, Survey
- WP4, Data Interpretation
- WP5, Results delivery
- WP6, Publicity
- WP7, Project Management

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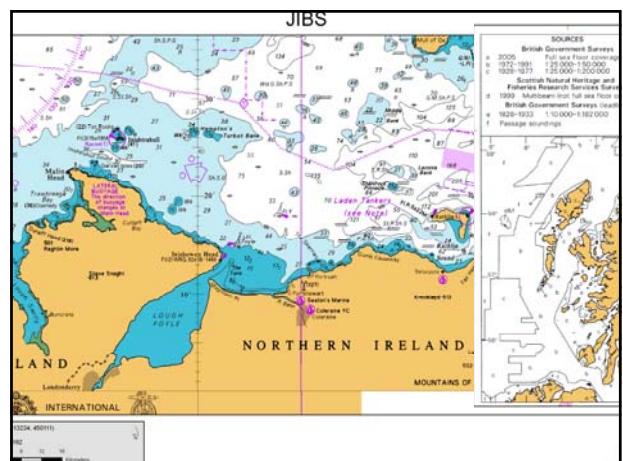
Plugging the Gap

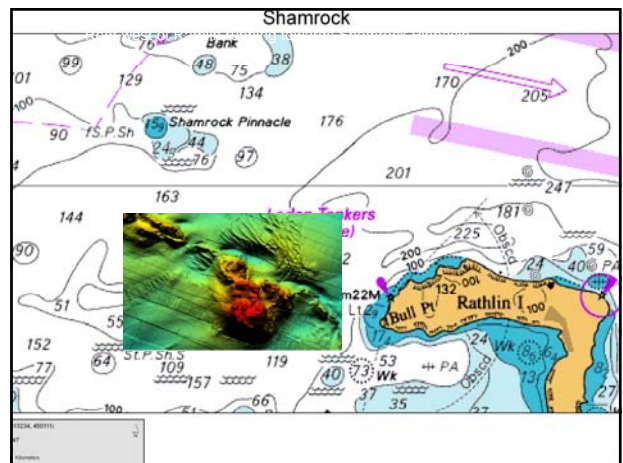
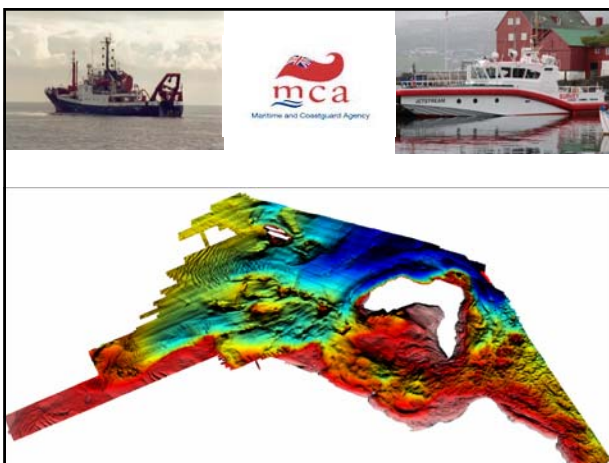
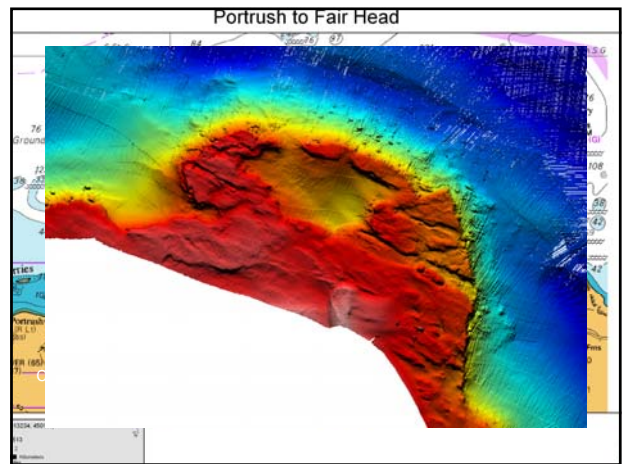
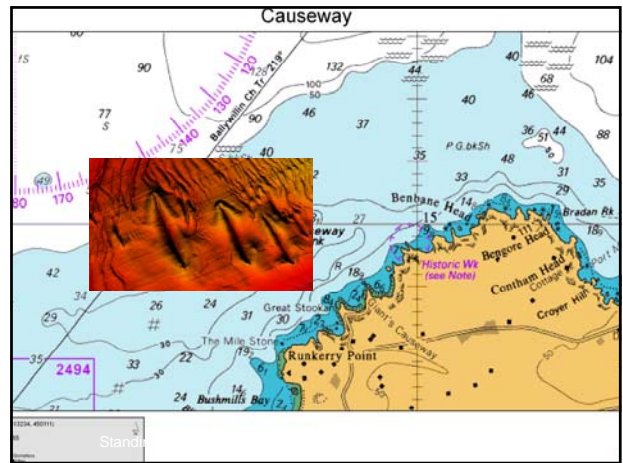
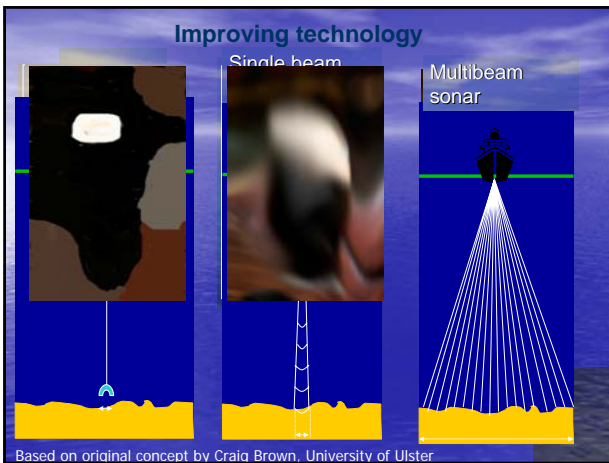
- The Belfast Meeting Feb 2006
- Interreg IIIA Under spend
- MCA made a phone call
- Marine Institute partners MCA
- JIBS approved Sep 2006, € 2.13m
- Commenced April 2007
- Completion June 2008

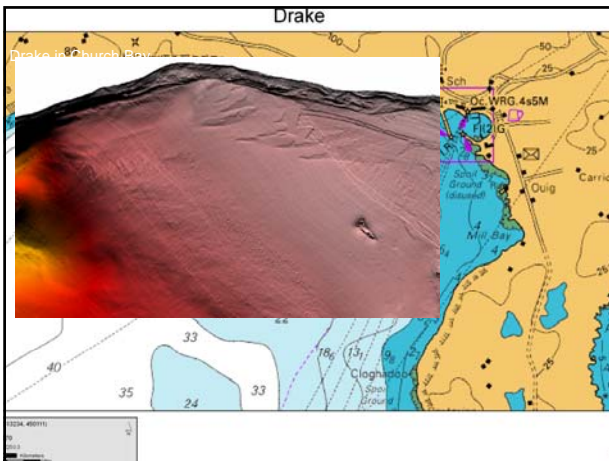


Source Marine Institute

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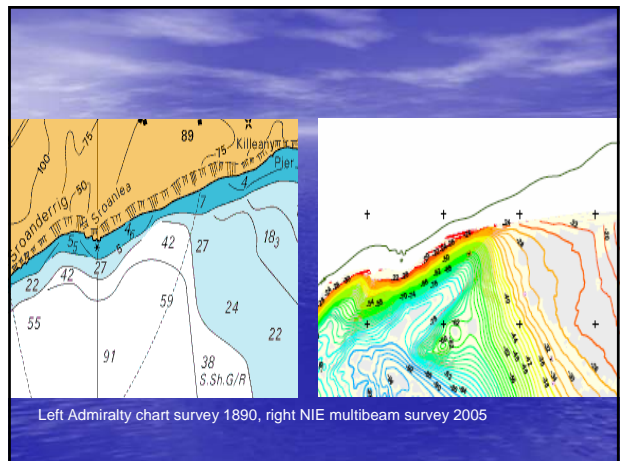
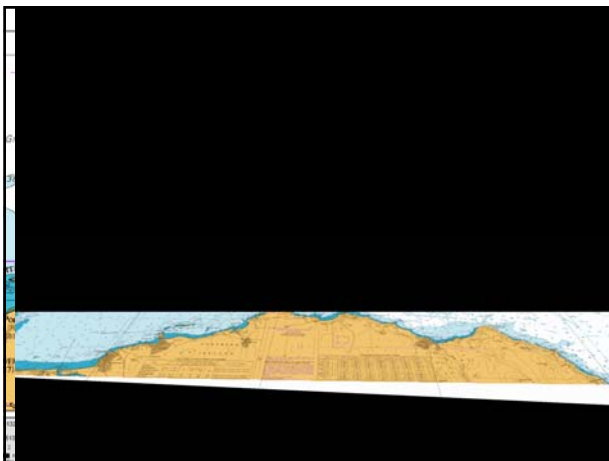
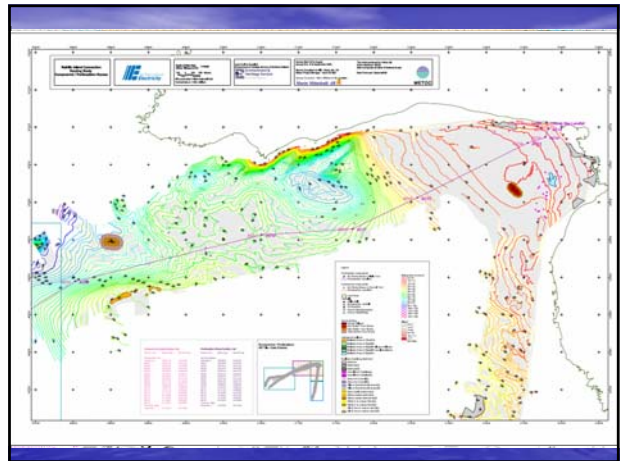
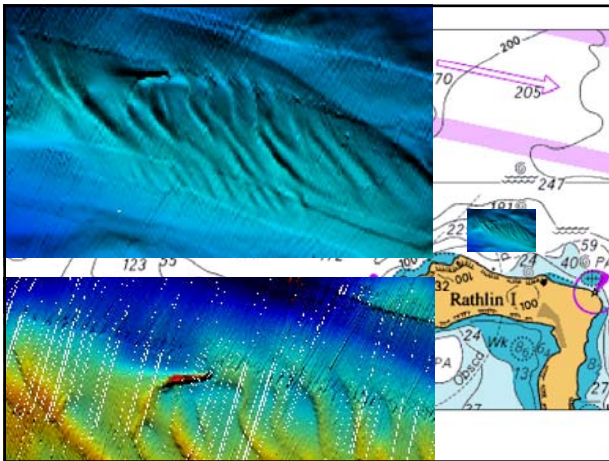


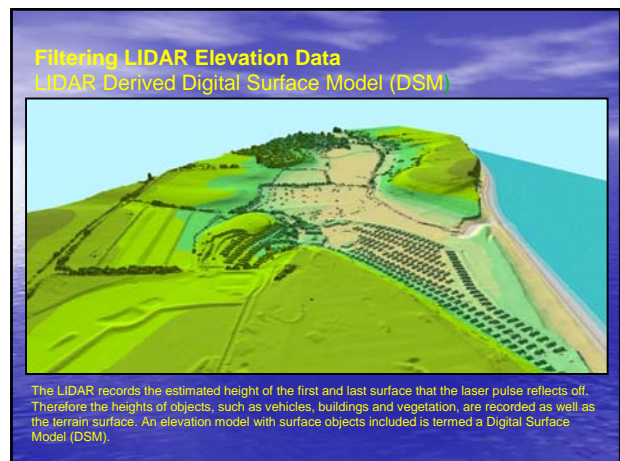
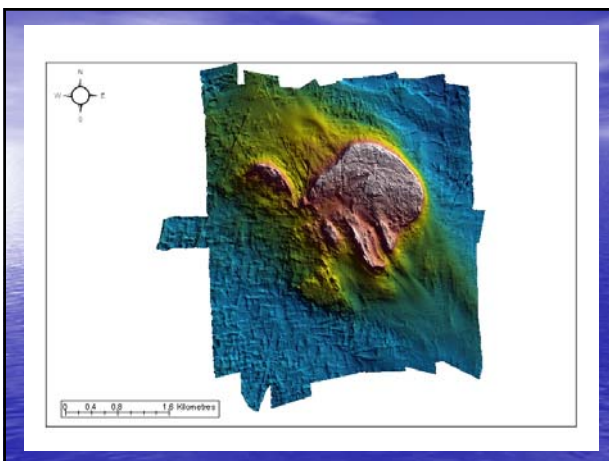
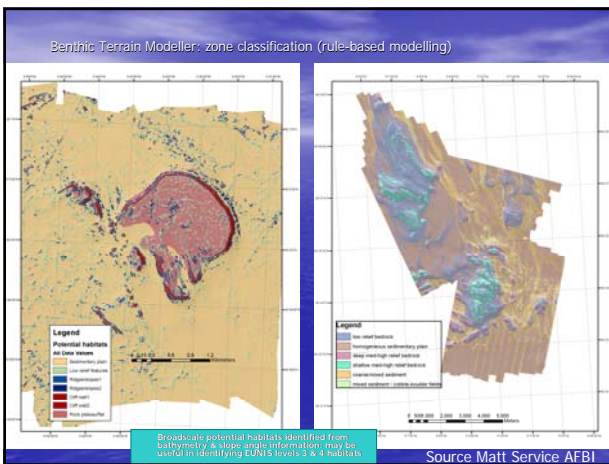
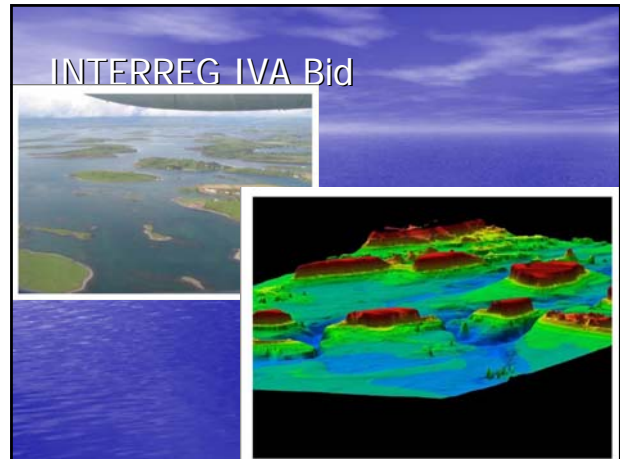
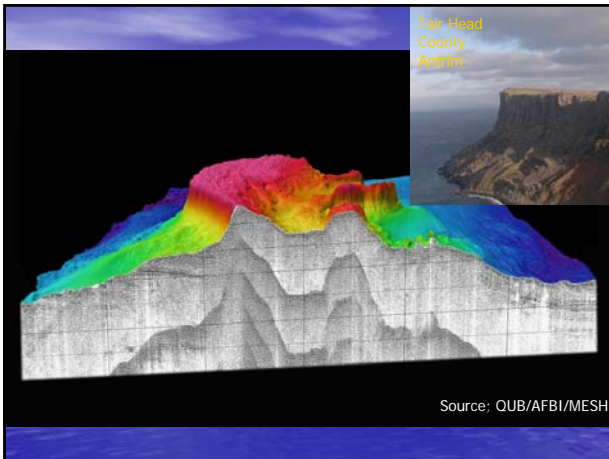




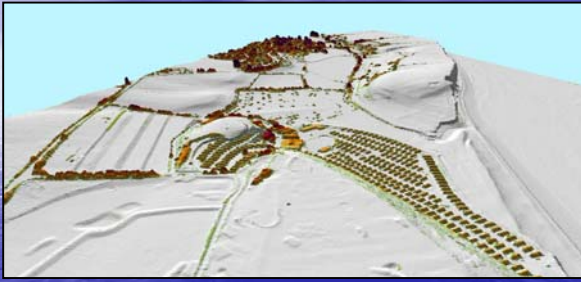
JIBS Deliverables

- 100% coverage of sea-bed, Tory to Torr
- 100% acoustic backscatter
- Derived marine geology
- Currents, tides, temp and salinity data
- Identification of benthic habitats
- Identification of shipwrecks



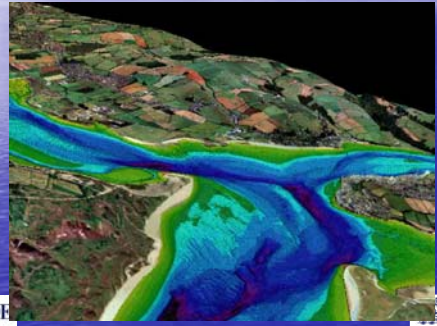


Filtering LIDAR Elevation Data
Identified Surface Objects from the Classification



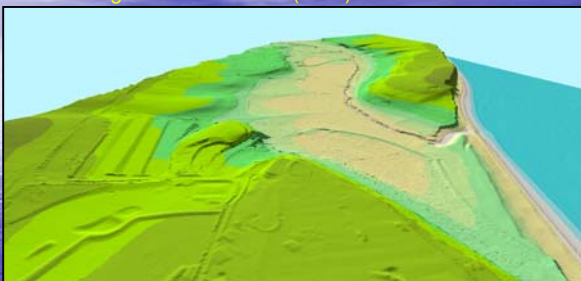
Although DSMs have many uses (for example 3D Visualisation), a lot of applications - especially flood mapping - require a "bare earth" model. This is called a Digital Terrain Model (DTM). Science Group - Technology have developed algorithms for classifying the DSM in order to identify surface objects and filter them out of the DSM, in order to construct the DTM.

Taw Torridge Estuary
LIDAR, Multi beam and Air Photo.




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Filtering LIDAR Elevation Data
Derived Digital Terrain Model (DTM)



The algorithms used to generate Digital Terrain Models from the LIDAR data have been coded into ESRI GIS products, and utilise raster, vector and TIN modelling. The techniques used are flexible enough to tackle all of the varied landscape types found in the UK, including rural, coastal, urban and forested areas. A standard product delivery would include the DSM, the DTM and the classification layer.

- Need concerted action to map all NI, territorial waters
- Less reliance on historical data
- Need for central repository of mapping data
- Data to be made readily available



REMAINING AREAS

Source Marine Institute

Taw Torridge Estuary
LIDAR, Multi beam and Air Photo.




Thank you

GSI

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Environment & Heritage Services

European Union

INTERREG

INFOMAR

mca

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