

# Organizing & Sharing Geospatial Information

Kurt Nelson & Neil Weston - Coast Survey Development Laboratory  
Patrick Keown – Hydrographic Services Division

# Presentation Overview

- The Platforms
  - OCS GIS Portal
  - NOAA Geoplatform
- Capabilities
- Key Content (examples)
- Outcomes



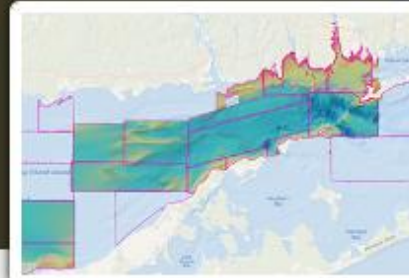
# OCS GIS Portal



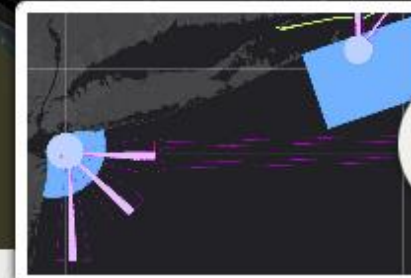
**NCEI BAGs with NOS Survey Bounds**



**Marine Transportation Services - OCS**



**NOS Surveys with BAGs - NGDC Features**



**Shipping Lanes And Regulations**

# Getting Started

**Get started! Click the Links to Find Out More...**



Portal 101 ArcUser Article



Create a Map



Getting Familiar with the Portal



Sharing your Map with OCS



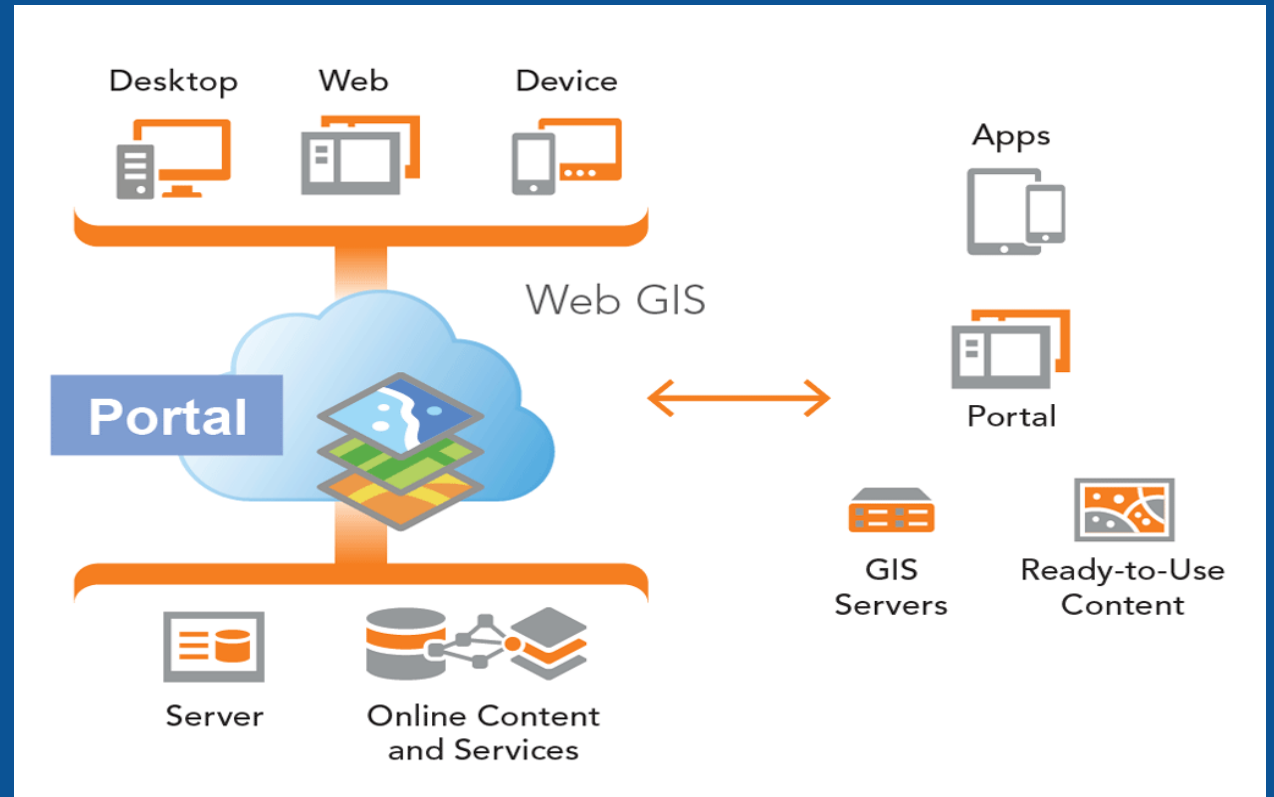
What Can I Add to the Portal?



What are Hosted Services?

# Capabilities

- Configure Portal to Meet Organization Requirements
- Manage Access through User Accounts
- Leverage ArcGIS Server
- Store Feature Data
- Create and Share Content
- View and Edit Content







Web GIS Concept Diagram

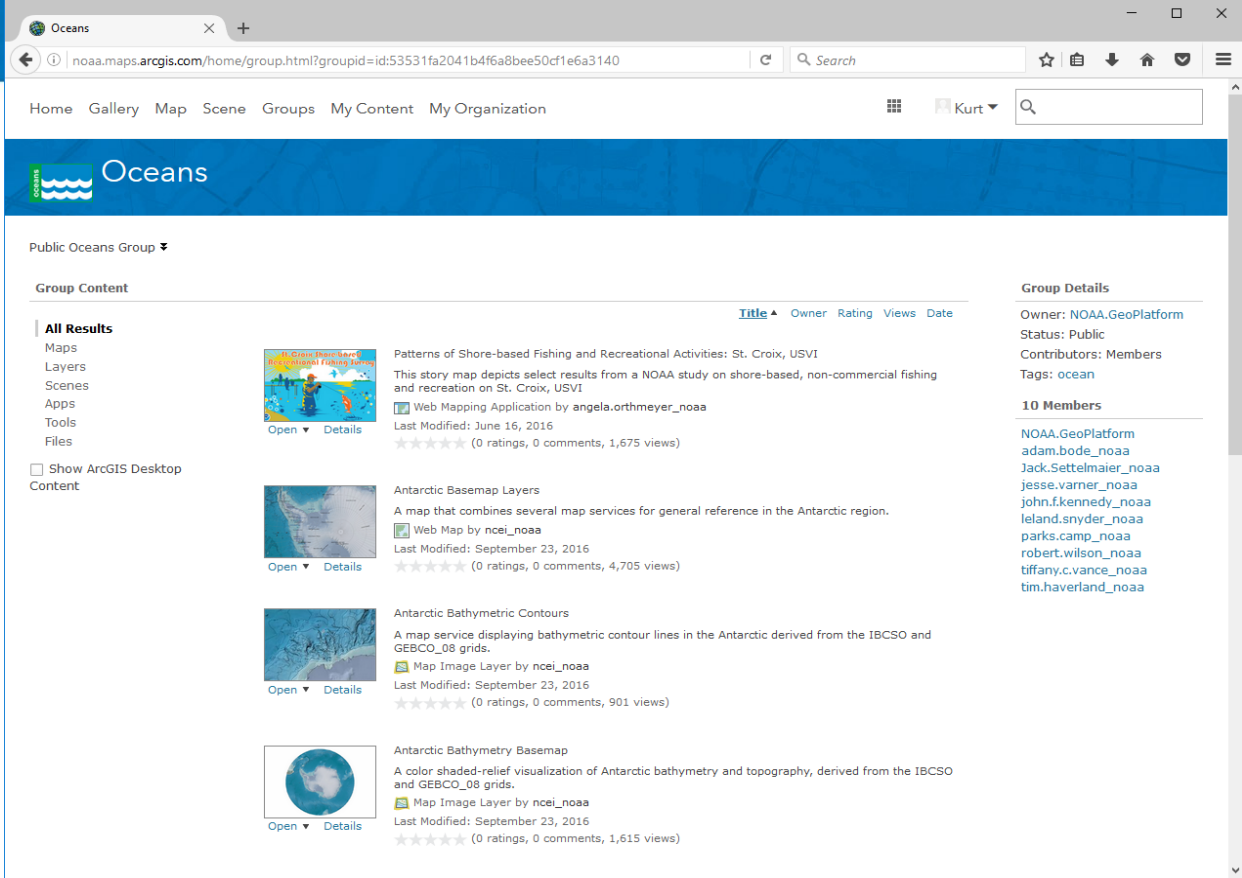
# Setting Groups

## Groups

Here are a few groups that you may find interesting.

-  **Coasts**  
Public Coasts Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)
-  **Charting and Geodesy**  
Public Charting and Geodesy Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)
-  **Fisheries**  
Public Fisheries Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)
-  **Climate**  
Public Climate Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)
-  **Hurricanes**  
Public group focusing on data, services, and applications related to hurricane prediction and response.  
owned by NOAA.GeoPlatform on June 9, 2014  
[Details](#)

-  **Oceans**  
Public Oceans Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)
-  **Weather**  
Public Weather Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)
-  **Research**  
Public Research Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)
-  **Satellites**  
Public Satellites Group  
owned by NOAA.GeoPlatform on March 11, 2014  
[Details](#)



The screenshot shows a web browser window displaying the NOAA ArcGIS Groups page for the "Public Oceans Group". The browser address bar shows the URL: `noaa.maps.arcgis.com/home/group.html?groupid=id:53531fa2041b4f6a8bee50cf1e6a3140`. The page header includes navigation links: Home, Gallery, Map, Scene, Groups, My Content, My Organization. The main content area is titled "Public Oceans Group" and shows a list of "Group Content" items. The content list includes:

- Patterns of Shore-based Fishing and Recreational Activities: St. Croix, USVI**  
This story map depicts select results from a NOAA study on shore-based, non-commercial fishing and recreation on St. Croix, USVI.  
Web Mapping Application by *angela.orthmeyer\_noaa*  
Last Modified: June 16, 2016  
0 ratings, 0 comments, 1,675 views
- Antarctic Basemap Layers**  
A map that combines several map services for general reference in the Antarctic region.  
Web Map by *ncei\_noaa*  
Last Modified: September 23, 2016  
0 ratings, 0 comments, 4,705 views
- Antarctic Bathymetric Contours**  
A map service displaying bathymetric contour lines in the Antarctic derived from the IBCSO and GEBCO\_08 grids.  
Map Image Layer by *ncei\_noaa*  
Last Modified: September 23, 2016  
0 ratings, 0 comments, 901 views
- Antarctic Bathymetry Basemap**  
A color shaded-relief visualization of Antarctic bathymetry and topography, derived from the IBCSO and GEBCO\_08 grids.  
Map Image Layer by *ncei\_noaa*  
Last Modified: September 23, 2016  
0 ratings, 0 comments, 1,615 views

On the right side of the page, the "Group Details" section shows:

- Owner: NOAA.GeoPlatform
- Status: Public
- Contributors: Members
- Tags: ocean
- 10 Members: NOAA.GeoPlatform, adam.bode\_noaa, Jack.Settelmaier\_noaa, jesse.varner\_noaa, john.f.kennedy\_noaa, leland.snyder\_noaa, parks.camp\_noaa, robert.wilson\_noaa, tiffany.c.vance\_noaa, tim.haverland\_noaa




# Single Location to Search Featured Content








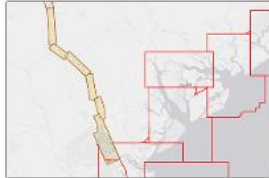

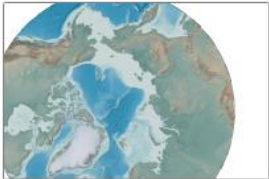


OCS GIS Portal Featured Content

Sort By: **Most Viewed**

Show

- All
- Maps**
- Web Maps
- Map Files
- Layers
- Scenes
- Apps
- Tools
- Files



			
The NSD Database	Arctic Nautical Charting Plan	Shoreline Evaluation Submission June 16, MCD Shoreline Evaluation	RNC Seamless Basemap
			
ENC Basemap	World Dark Gray Base	Full AOI Dataset	NCSII Load Comparison
			
Tri Office Chart Planning	Arctic Basemap	USGS Topo National Map Basemap	New Chart Plans and Hydro Survey Plans

« < 1 2 3 ... 9 > »

# Active Captain Application

## Crowdsource Hazard Reporting

The screenshot shows the 'Active Captain Viewer - Currency and Comments' web application. The browser address bar displays 'http://ocs-vs-appd7/flex\_test/ActiveCaptain/'. The application interface includes a search bar, a map of the Georgetown area, and several informational popups.

**Enhanced Search Dialog:**

- Search Layer: Active Captain Hazards
- Search by Hazard Id:
- Enter Hazard\_ID:
- Buttons: Search, Clear

**Active Captain Currency Popup:**

- HAZARD\_ID: 44002
- NAME: Shoaling (traditional problem area)
- NOTES: Marker G81 has been moved to reflect the shoal and is located
- Buttons: Zoom to, Show related records

**Map Labels:** Georgetown, Winyah B, GEORGETOWN FI (2) 15M, INTRACASTAL WATERWAY, Little River Inlet, AERO Rot W & G, (use chart 11530)

**Map Text:** NOTE A: Navigation regulations are published in Chapter 2, U.S. Coast Pilot 4. NOTE X: Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. NOTE Y: Magnetic Variation: The variation curves are for 2011 derived from a Magnetic Model and accompanying secular annual change is in same direction as variation and the variation is increasing.





# Navigation Manager Area of Responsibility

The screenshot shows a web browser window with the following elements:

- Address bar: <https://ocsgisportal.nos.noaa.gov/portal/apps/OnePane/basic>
- Browser tabs: "Use maps and scenes—Portal f...", "Portal for ArcGIS", "The NSD Database"
- Navigation Manager: "File Edit View Favorites Tools Help"
- Map Tools: "Print", "Layers", "Measure", "Time", "Find address or place"
- Map Content: A map of the United States and surrounding regions (Mexico, Caribbean) with colored overlays representing NOAA Navigation Manager Areas of Responsibility. The Southeast region is highlighted in red.
- Pop-up Window: "NOAA Navigation Manager Regions: Southeast"
  - Name: Kyle Ward
  - Region: Southeast
  - E-Mail: [kyle.ward@noaa.gov](mailto:kyle.ward@noaa.gov)
  - Phone: 843-740-1153
  - Mobile: 301-651-4852
  - Fax: 843-740-1329
  - Zoom to
- Scale: 0, 150, 300mi
- Footer: "POWERED BY ESRI", "GEBCO, IHO-IOC GEBCO, NGS, Esri, DeLorme | NOAA Coast Survey"



# Yukon River ENC



300,000 vs 90,000 Scale Chart



# PROTOTYPE

## Welcome to NOAA GeoPlatform

Providing geospatial data, maps, and analytics in support of NOAA's mission

### Features



2015-2016 Strong El Niño  
Event Recap by the NWS Los



April 27, 2011: A Day  
Alabama Will Never Forget



Fish Passage at  
Northwest Hydroelectric Proje



Growth Rings: Patterns of  
Urban Development

# Chart Comparison - NOAA Chart 11466

Why should I update my NOAA chart?

NOAA's Office of Coast Survey



Here you can see a comparison two subsequent editions of NOAA Chart 11466, in the vicinity of Lake Worth Inlet, FL

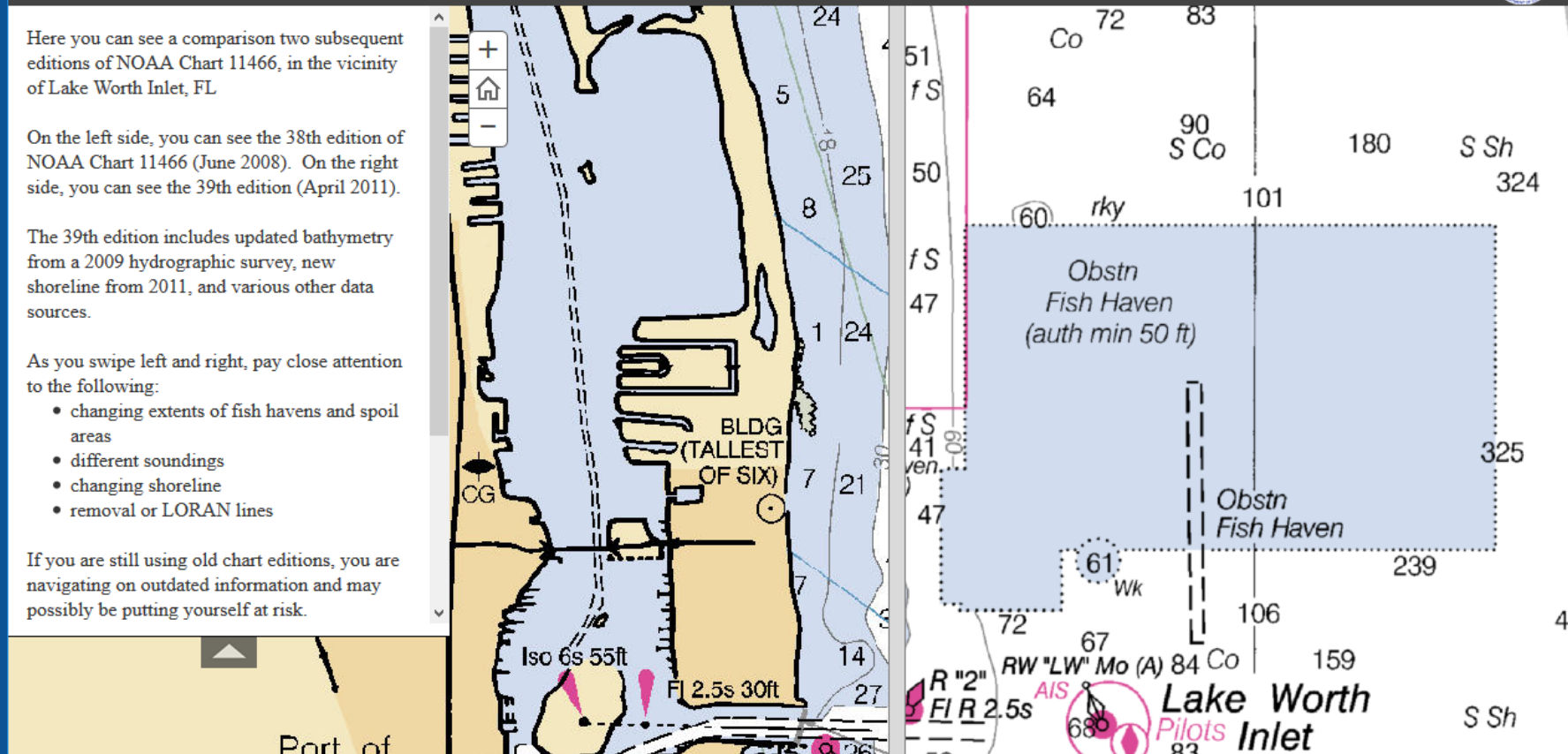
On the left side, you can see the 38th edition of NOAA Chart 11466 (June 2008). On the right side, you can see the 39th edition (April 2011).

The 39th edition includes updated bathymetry from a 2009 hydrographic survey, new shoreline from 2011, and various other data sources.

As you swipe left and right, pay close attention to the following:

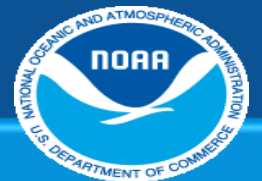
- changing extents of fish havens and spoil areas
- different soundings
- changing shoreline
- removal or LORAN lines

If you are still using old chart editions, you are navigating on outdated information and may possibly be putting yourself at risk.



38<sup>th</sup> Ed (June 2008)


39<sup>th</sup> Ed (April 2011)



# Gloucester Harbor Bathymetry Story Map

**Peer Beneath the Waves**  
Bathymetry and nautical chart of Gloucester Harbor

Learn more about hydrography and charting. [f](#) [t](#) [e](#)



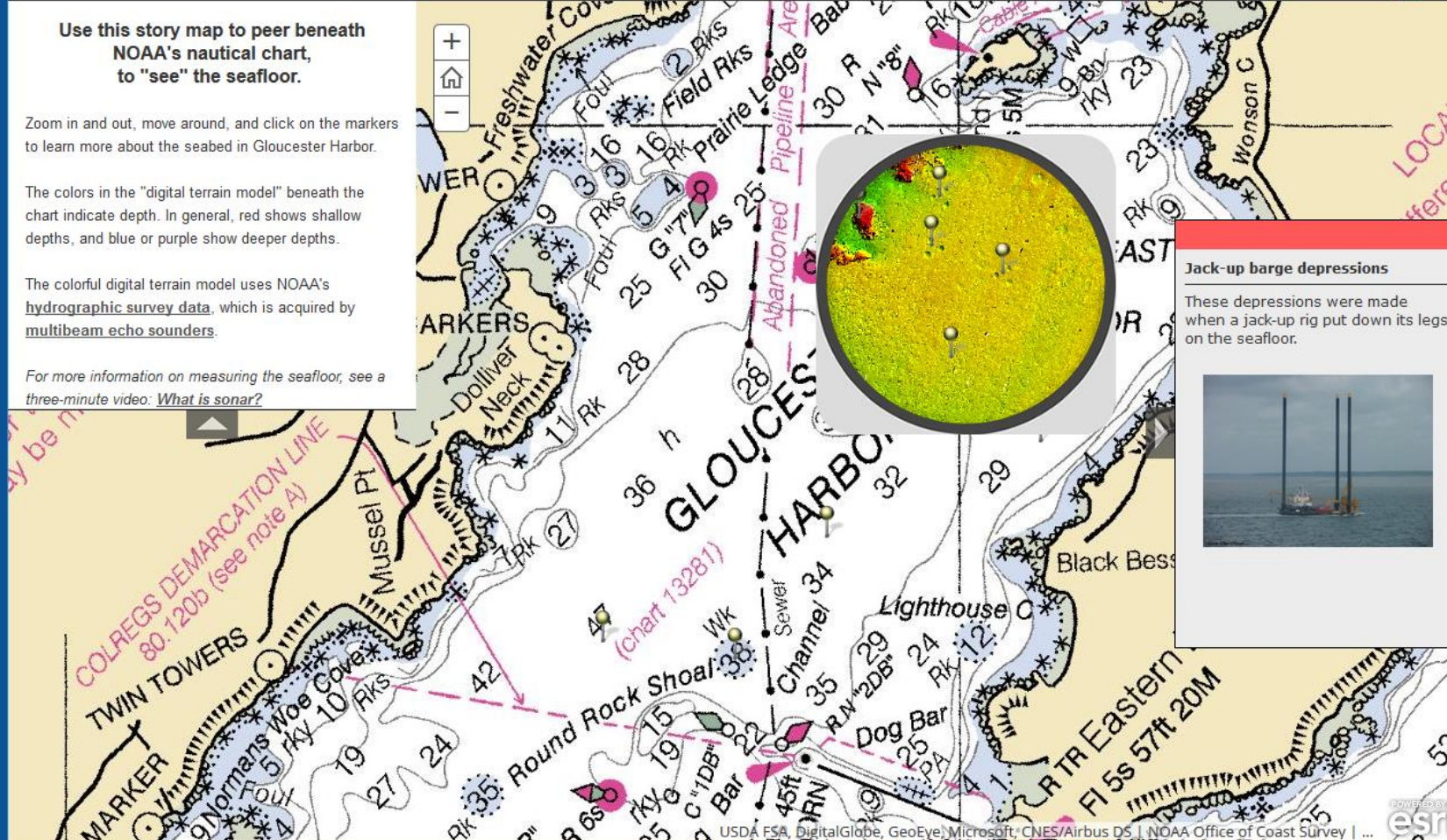
**Use this story map to peer beneath NOAA's nautical chart, to "see" the seafloor.**

Zoom in and out, move around, and click on the markers to learn more about the seabed in Gloucester Harbor.

The colors in the "digital terrain model" beneath the chart indicate depth. In general, red shows shallow depths, and blue or purple show deeper depths.


The colorful digital terrain model uses NOAA's [hydrographic survey data](#), which is acquired by [multibeam echo sounders](#).


For more information on measuring the seafloor, see a three-minute video: [What is sonar?](#)



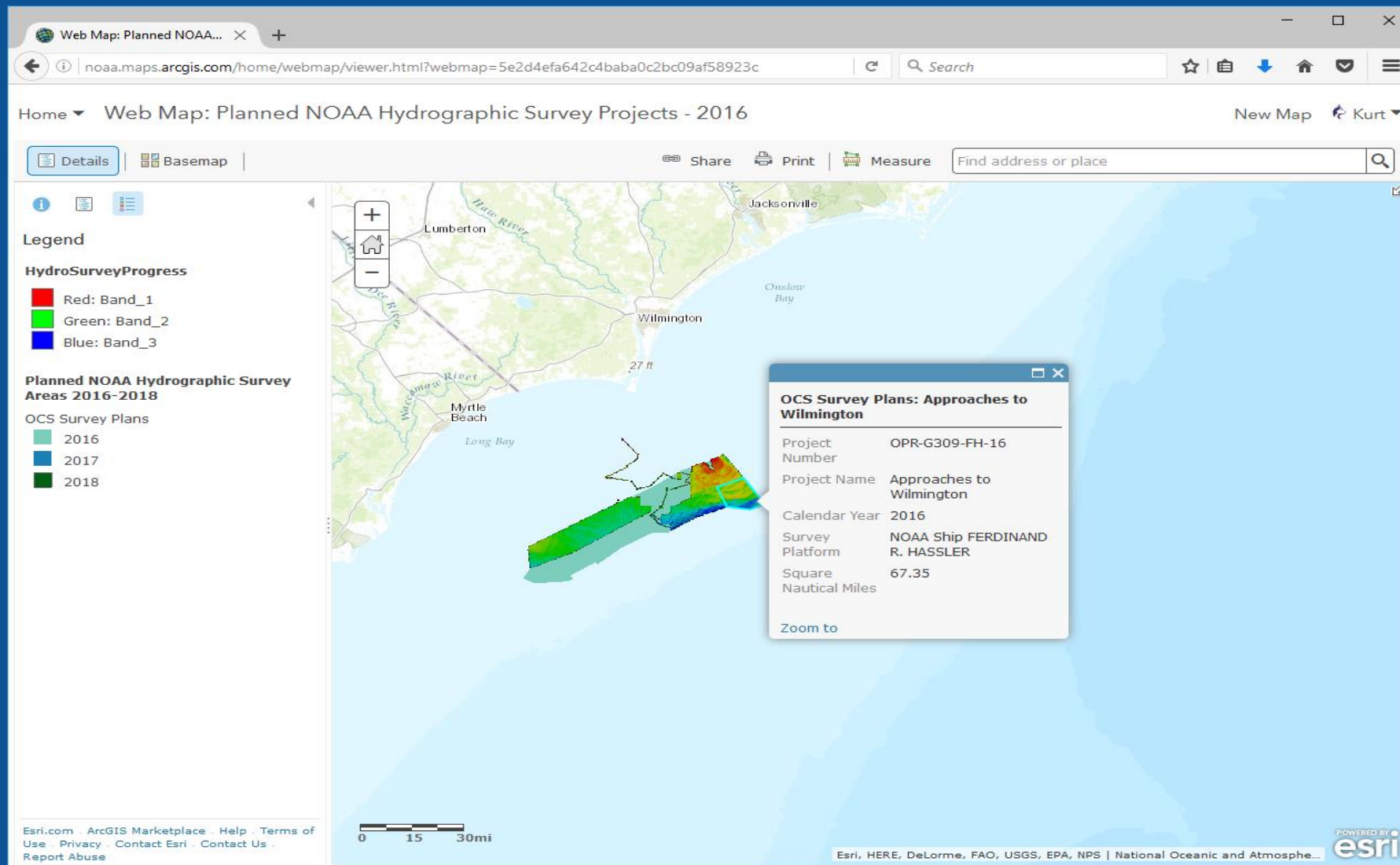
**Jack-up barge depressions**

These depressions were made when a jack-up rig put down its legs on the seafloor.



USDA FSA, DigitalGlobe, GeoEye, Microsoft, CNES/Airbus DS | NOAA Office of Coast Survey | ... 

# NOAA Hydrographic Survey Projects



# NOAA Hydrographic Survey Projects


Story Map: NOAA Planned Hydrographic Survey Projects - 2016

NOAA's Office of Coast Survey

North Coast of Kodiak Island | North Coast Unalaska (Dutch Harbor) | **Approaches to Wilmington** | Approaches to Savannah | South Coast of Kodiak Island | West Prince of Wales Island | George and Carol Inlets | Behm Canal | Southern Chesapeake Bay

**Approaches to Wilmington -- OPR-G309-FH-16**  
Planned project dates: June 2016 - October 2016  
Planned days at sea: 77  
Area: Approx. 797 square nautical miles

The purpose of this project is to provide contemporary surveys to update National Ocean Service (NOS) nautical charting products. This project will include survey area southeast of North Carolina. Survey areas will address 797 SNM, of which 663 SNM are Priority 1 in accordance with the National Hydrographic Survey Priorities Edition 2012. The project is based on an area identified by the Atlantic Coast Port Access Route Study (ACPARS) conducted by PNNL at the request of the USCG to delineate traffic corridors using AIS. This project will improve the chart for traffic navigating from port to port along the Atlantic Ocean Channel.

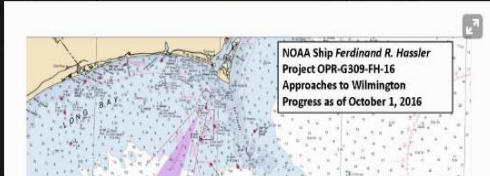


NOAA Ship *Ferdinand R. Hassler*

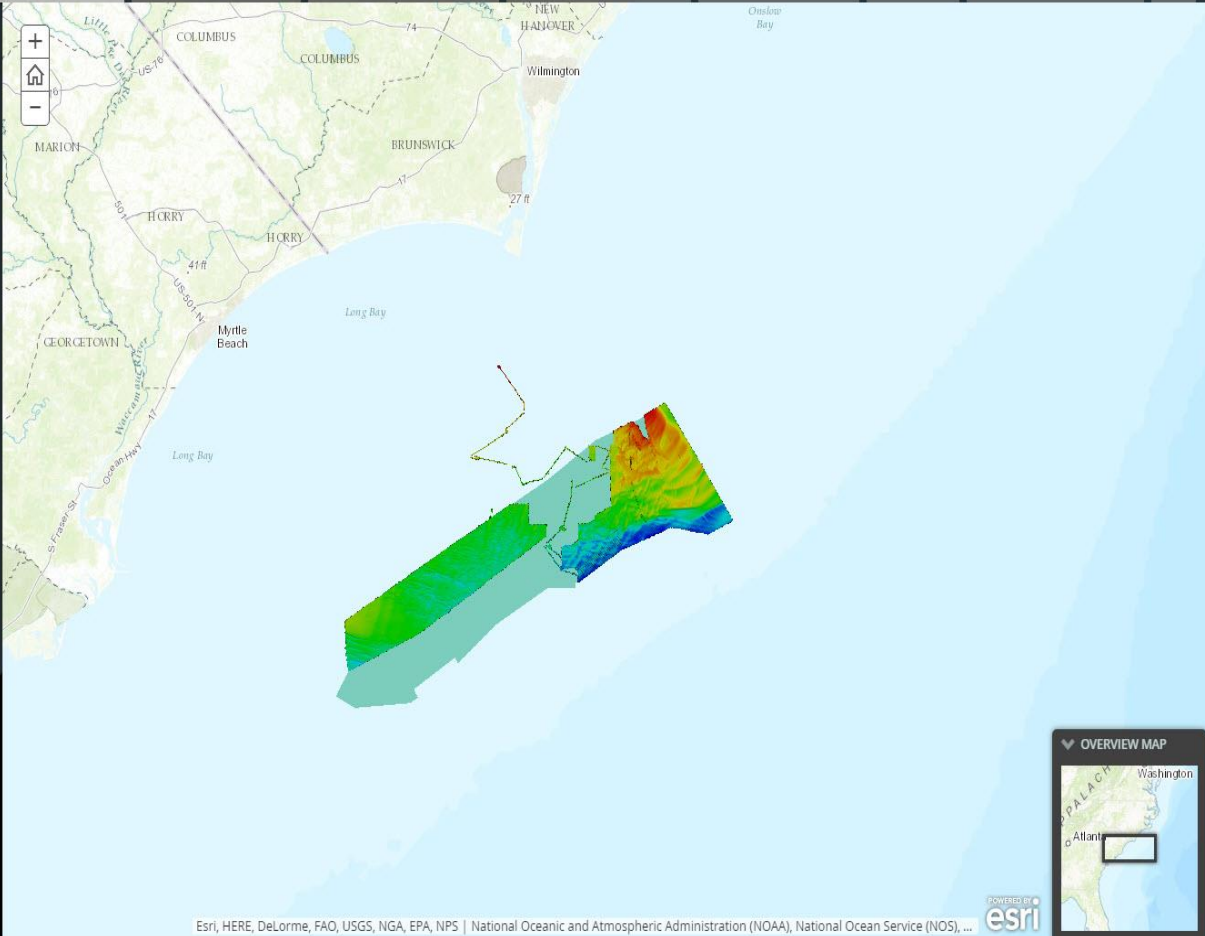
For more information about Coast Survey activities, you can sign up for our [newsletter](#) or [blog](#).

NOAA's Office of Coast Survey is responsible for planning hydrographic surveys. Planned hydrographic surveys are derived from NOAA's Hydrographic survey priorities, constituent requests submitted through navigational managers, and other factors. Note that these plans are tentative and subject to change based on each fiscal year's budget allocation, developing priorities and emerging constituent requests. Planned hydrographic surveys can be accessed via [REST service](#).


**Project Progress Sketch**




NOAA Ship *Ferdinand R. Hassler*  
Project OPR-G309-FH-16  
Approaches to Wilmington  
Progress as of October 1, 2016



Esri, HERE, DeLorme, FAO, USGS, NGA, EPA, NPS | National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), ...

POWERED BY 

OVERVIEW MAP



# Outcomes

- Improved effectiveness of geospatial activities across the organization
- Supports collaboration by sharing geospatial resources
- Reduced duplication of effort
- Reduced time spent looking for authoritative data sources
- Made it easier to get NOAA data and stories out to the public.



# Contact Information

Geospatial Application Development Branch (GADB)  
Coast Survey Development Laboratory  
Office of Coast Survey, National Ocean Service

1315 East West Hwy  
Silver Spring, MD 20910

Branch Chief, Kurt A Nelson

[kurt.a.nelson@noaa.gov](mailto:kurt.a.nelson@noaa.gov)

(301) 713-2645 x142

