Establishing a Standards-based Approach to Glider Data

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US IOOS
May 15, 2012

INTEGRATED OCEAN OBSERVING SYSTEM

A Clear View of Tomorrow

Our Planet is Changing

We need advanced tools to understand and monitor our oceans, coasts and Great Lakes

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US IOOS Program Office

U.S. IOOS®: A Partnership for Lives and Livelihoods

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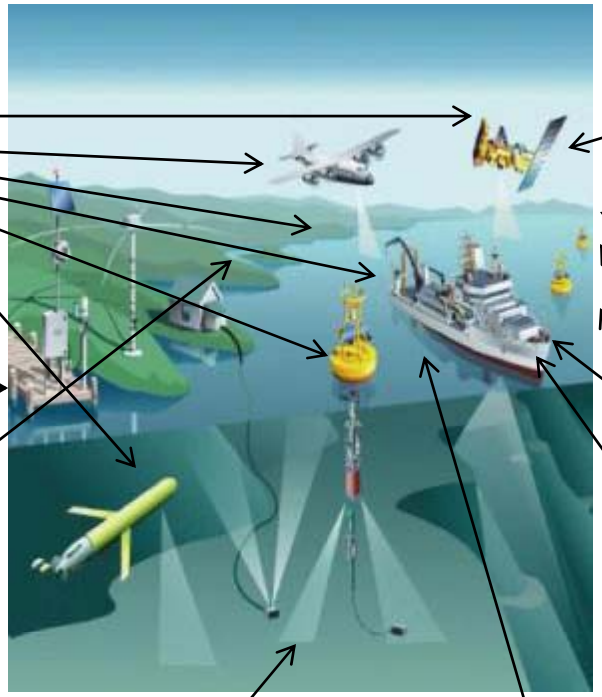
U.S. IOOS Partner Reported Observing System Assets

Observing Assets Measuring U.S. IOOS Core Variables



45 obs systems & obs asset database (NOSA)

2 satellite obs systems

4 obs systems

1,500 obs platforms

Regional IOOS

4 obs programs

21 obs systems

8 water resource programs & 1 satellite obs system

Animal-borne sensors

Defense-related obs systems

4 obs systems

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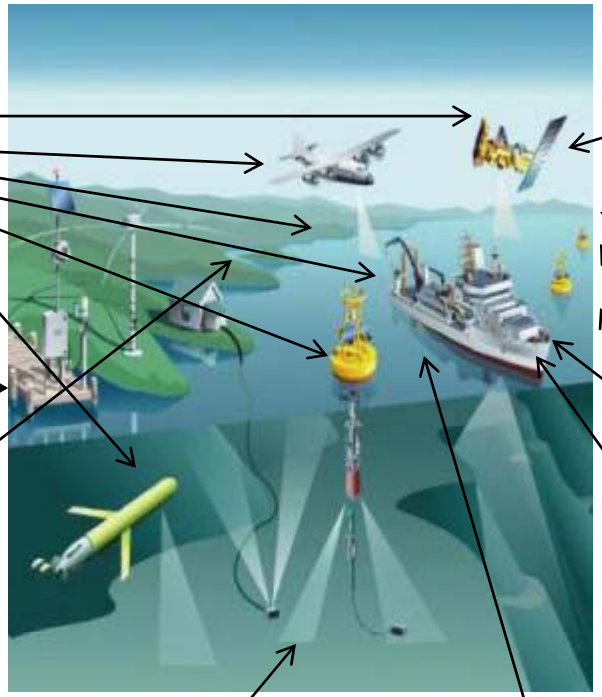

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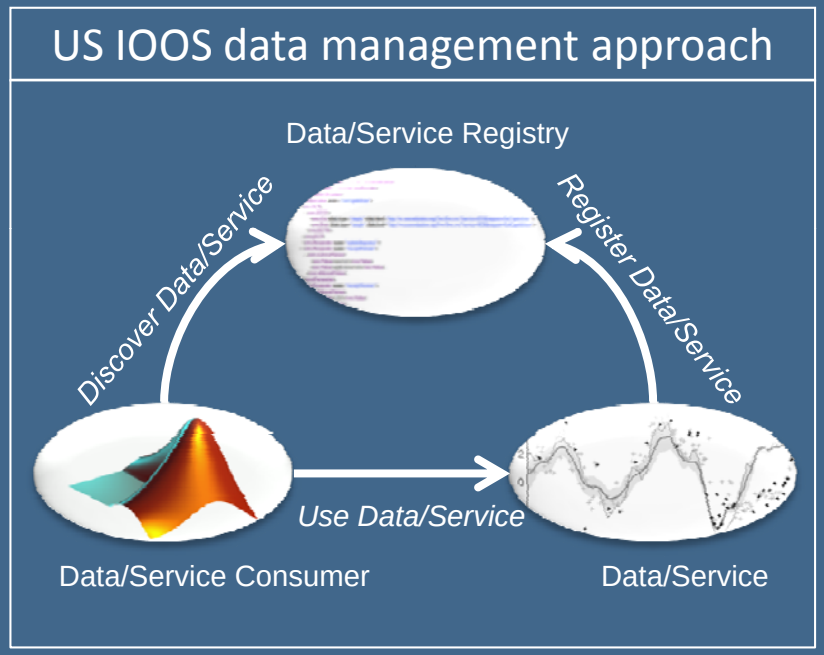
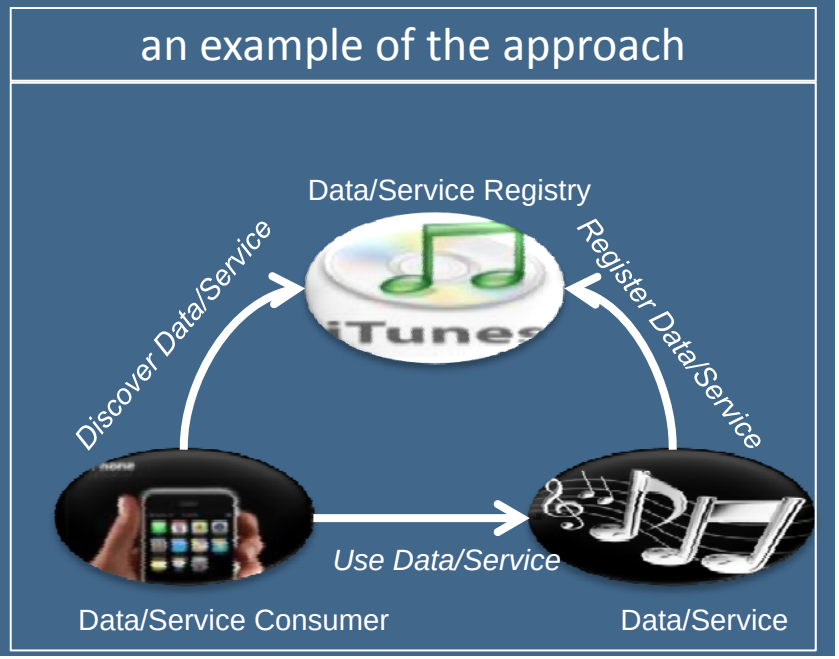
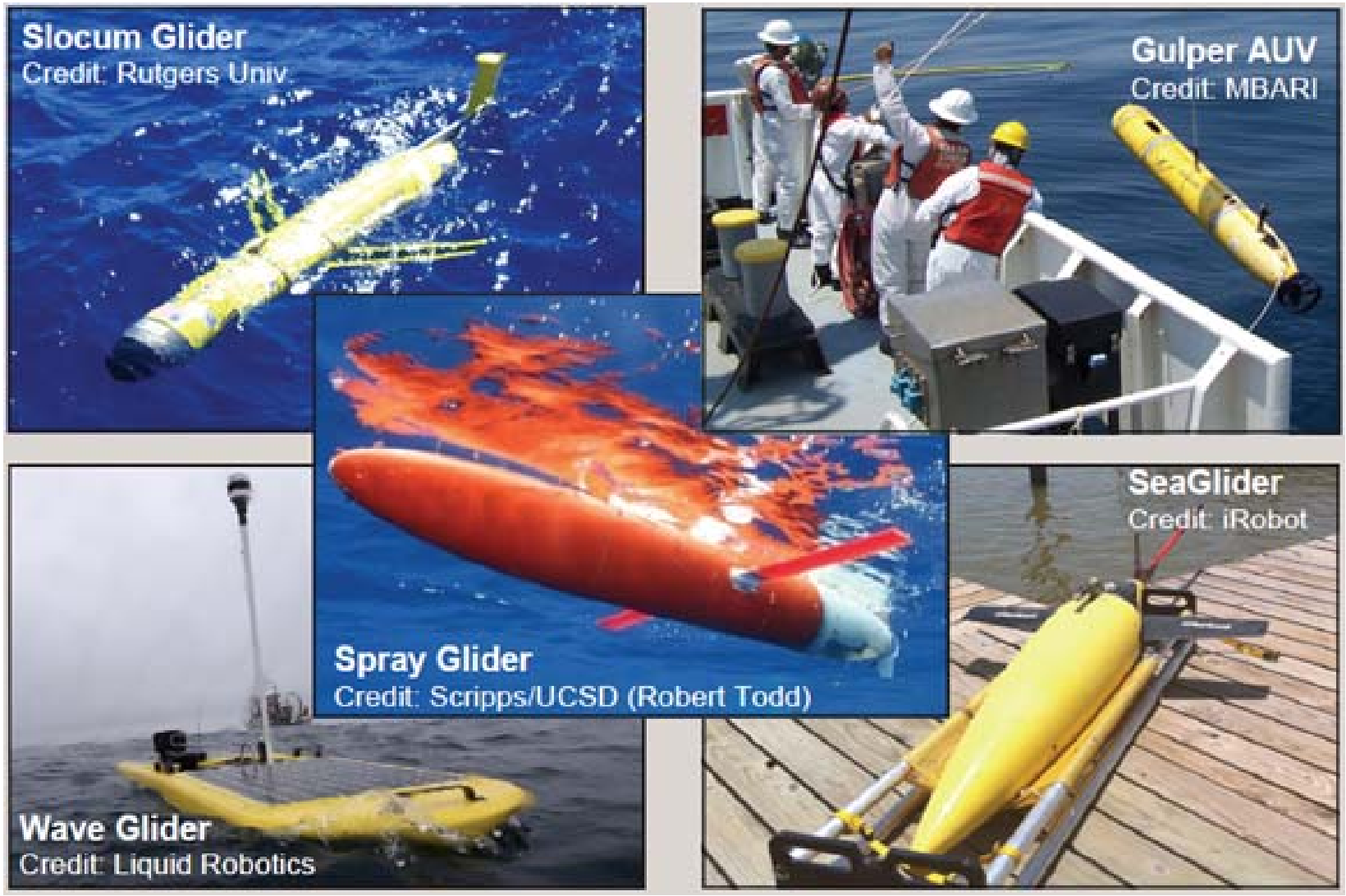
US IOOS: Data Management Services

- Collaborating with federal and non-federal partners to allow users to easily find and use ocean data





Gliders in Action



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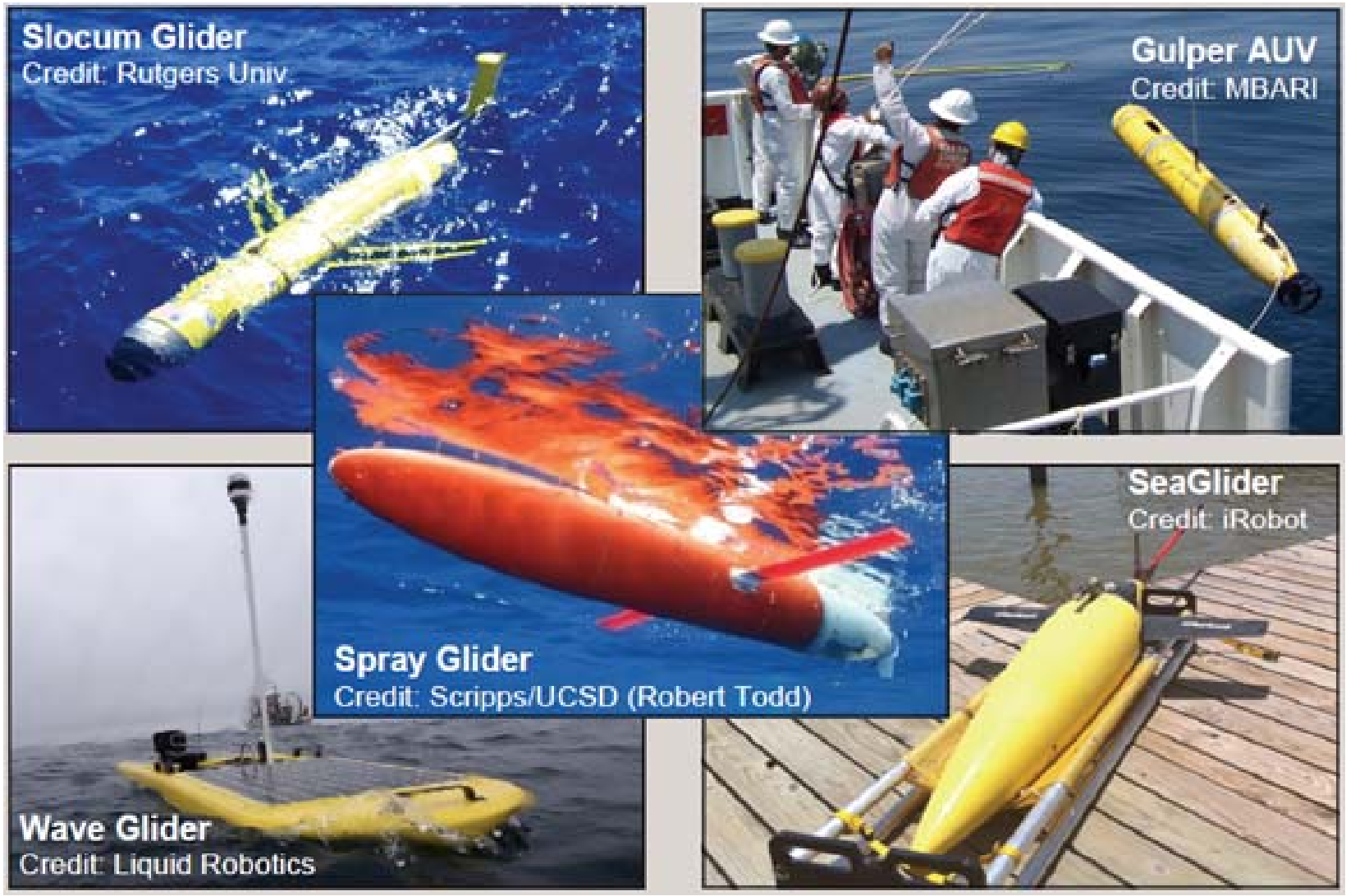


Deep Water Horizon

The deadly explosion caused 3 million gallons of crude oil to pour into the Gulf. Photograph: KPA/Zuma/Rex Features

Storm Effects

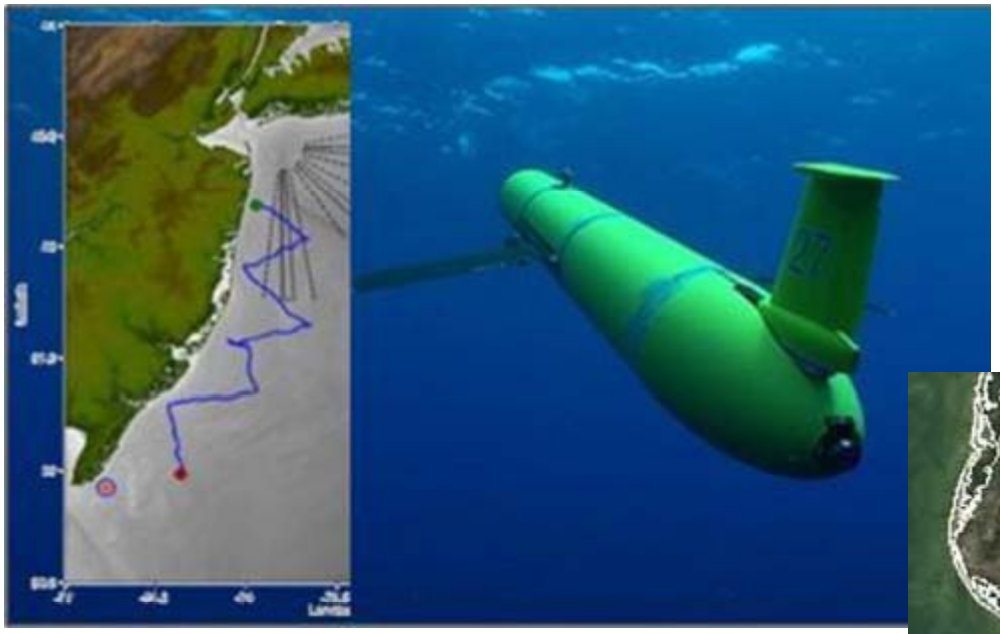
Rutgers' Scarlet Knight Crosses Ocean Basin

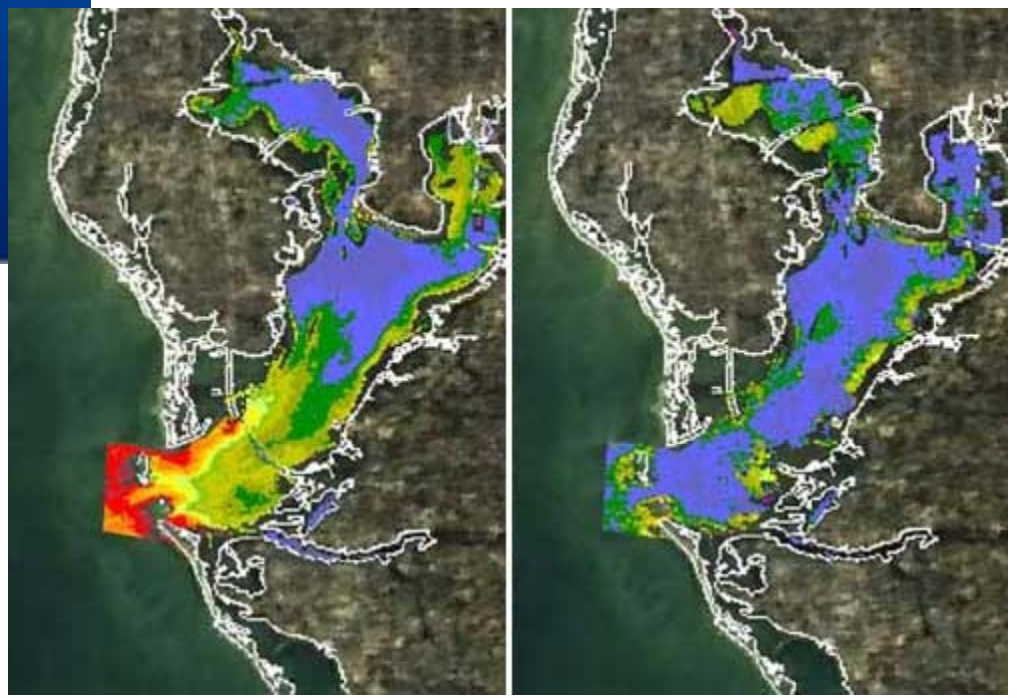
- 221 Days
- 7,409 km
- 11,000 Dives
- 11,000 Climbs
- Energy equivalent of 8 minutes power the Rockefeller Center Tree

Tuckerton, New Jersey, USA

Baiona, Galicia, Spain

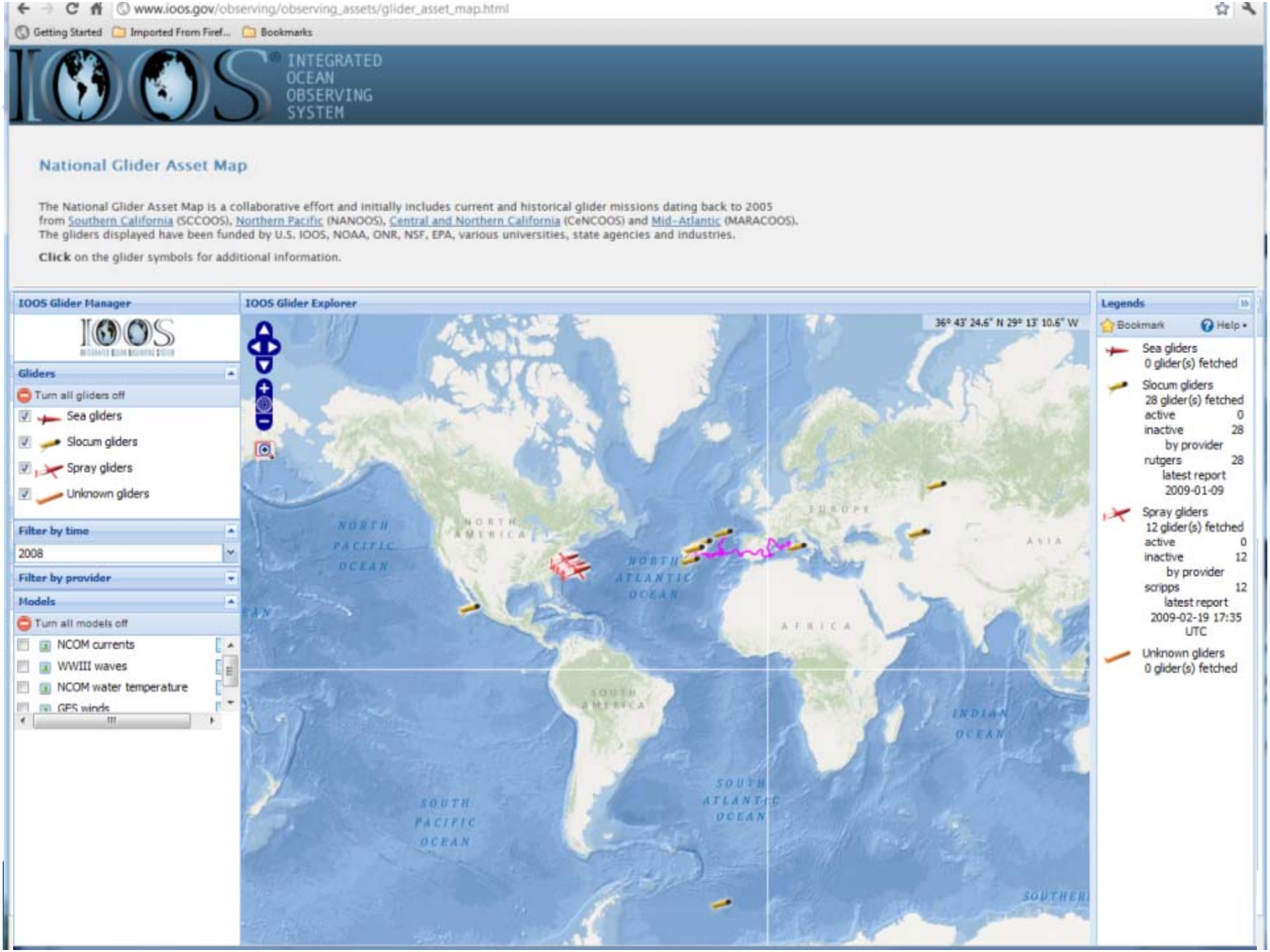
Water Quality





National Strategy

National Strategy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IOOS
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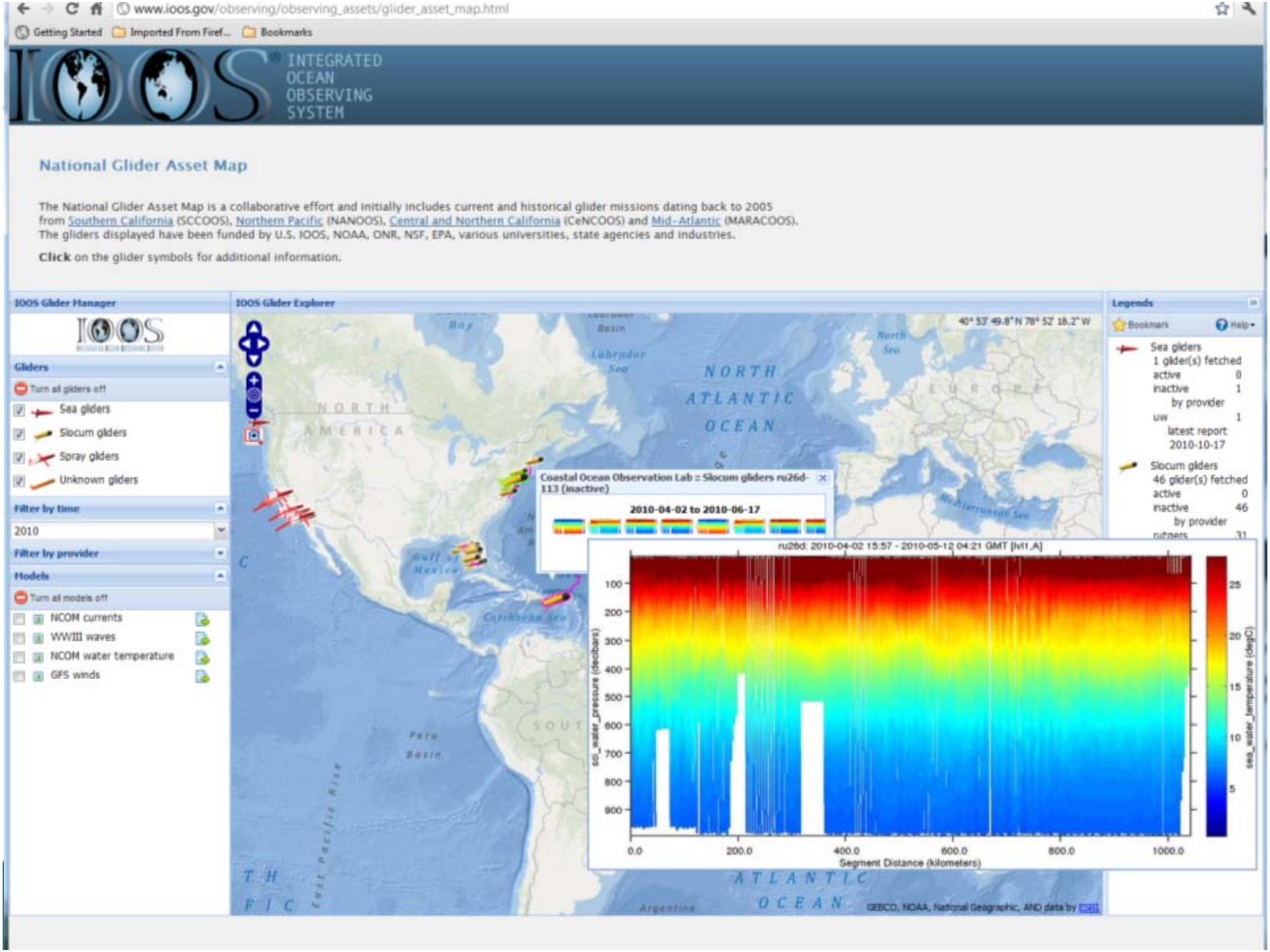
National Glider Asset Map
The National Glider Asset Map is a collaborative effort and initially includes current and historical glider missions dating back to 2005 from Southern California (SCCOOS), Northern Pacific (NANOOS), Central and Northern California (CeNCOOS) and Mid-Atlantic (MARACOOS). The gliders displayed have been funded by U.S. IOOS, NOAA, ONR, NSF, EPA, various universities, state agencies and industries.
Click on the glider symbols for additional information.
IOOS Glider Manager
Gliders
Turn all gliders off
Sea gliders
Slocum gliders
Spray gliders
Unknown gliders
Filter by time
2008
Filter by provider
Models
Turn all models off
NCOM currents
WWIII waves
NCOM water temperature
GFS winds
IOOS Glider Explorer
36° 43' 24.6" N 29° 13' 10.6" W
NORTH PACIFIC OCEAN
NORTH AMERICA
NORTH ATLANTIC OCEAN
EUROPE
ASIA
AFRICA
SOUTH AMERICA
SOUTH PACIFIC OCEAN
SOUTH ATLANTIC OCEAN
INDIAN OCEAN
Legends
Bookmark
Help
Sea gliders
0 glider(s) fetched
Slocum gliders
28 glider(s) fetched
active 0
inactive 28
by provider
rutgers 28
latest report
2009-01-09
Spray gliders
12 glider(s) fetched
active 0
inactive 12
by provider
scripps 12
latest report
2009-02-19 17:35 UTC
Unknown gliders
0 glider(s) fetched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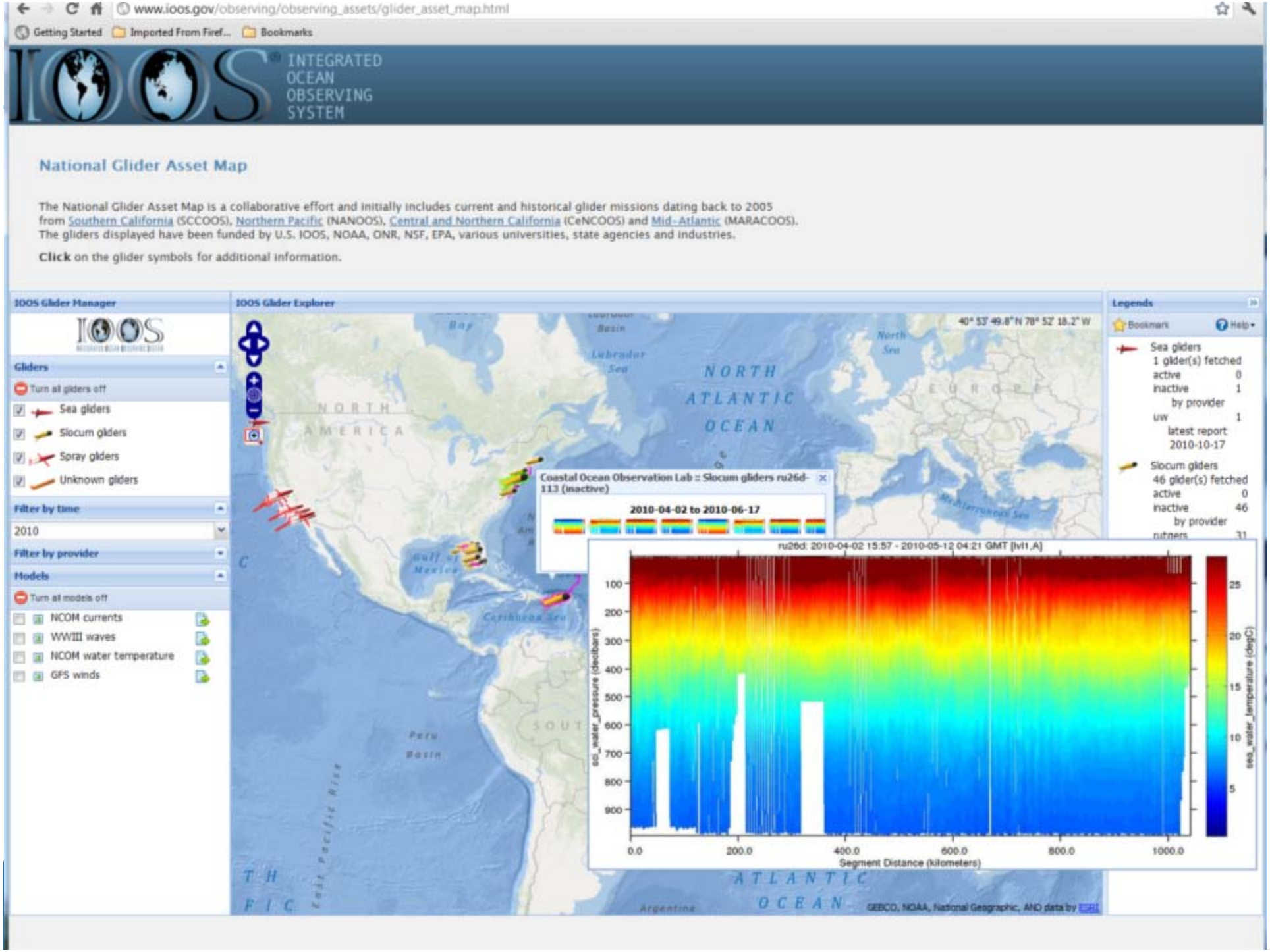
Slocum gliders
Spray gliders
Unknown gliders
Filter by time
2010
Filter by provider
Models
Turn all models off
NCOM currents
WWIII waves
NCOM water temperature
GFS winds
IOOS Glider Explorer
40° 53' 49.8" N 78° 52' 18.2" W
NORTH ATLANTIC OCEAN
NORTH AMERICA
Coastal Ocean Observation Lab :: Slocum gliders ru26d-113 (inactive)
2010-04-02 to 2010-06-17
ru26d: 2010-04-02 15:57 - 2010-05-12 04:21 GMT [lvl1,A]
sci_water_pressure (decibars)
sea_water_temperature (degC)
Segment Distance (kilometers)
GEBCO, NOAA, National Geographic, AND data by ESRI
Legends
Bookmark
Help
Sea gliders
1 glider(s) fetched
active 0
inactive 1
by provider
uw 1
latest report 2010-10-17
Slocum gliders
46 glider(s) fetched
active 0
inactive 46
by provider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active 0
inactive 1
by provider
uw 1
latest report 2010-10-17
Slocum gliders
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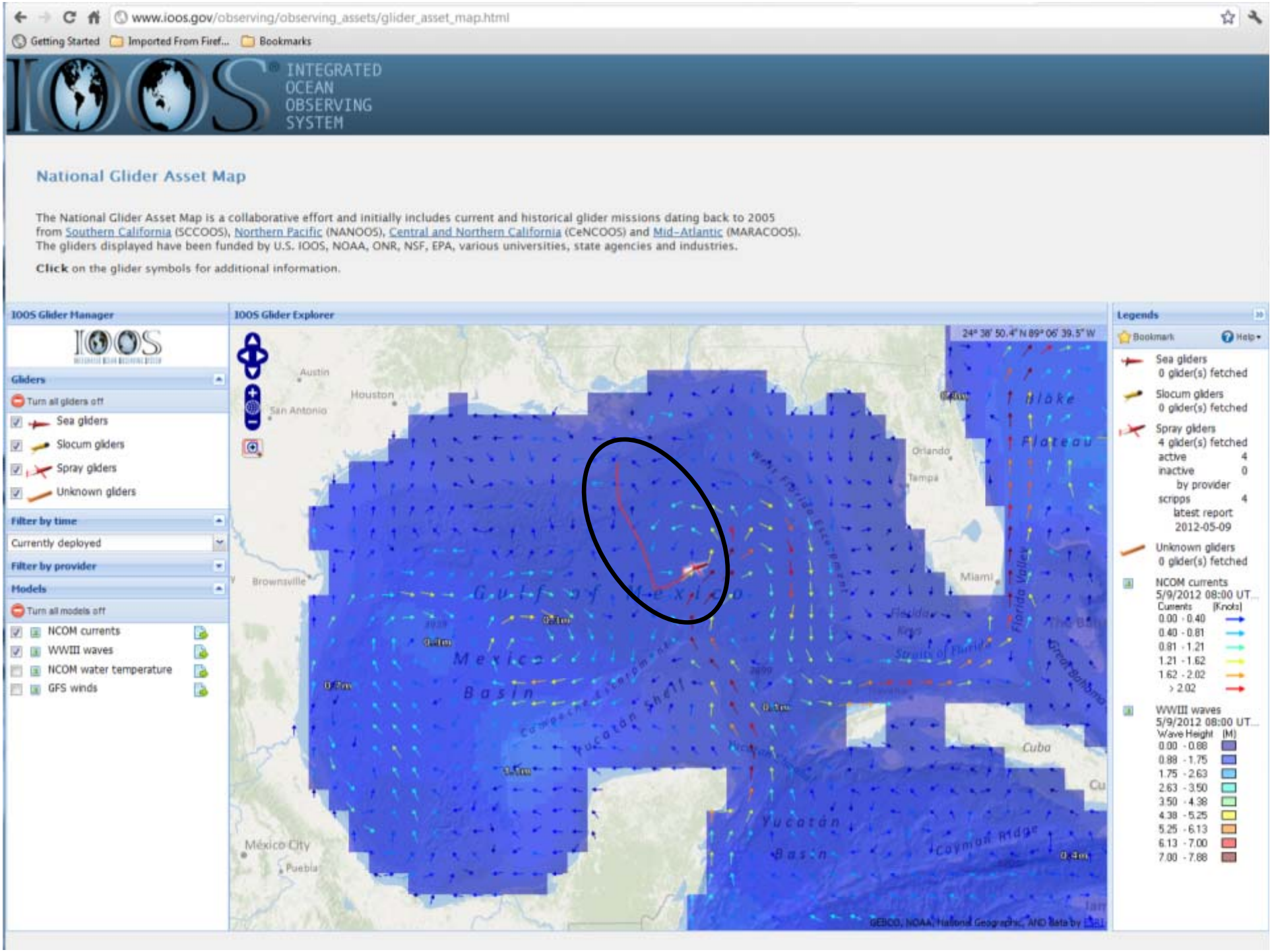
active 0
inactive 46
by provider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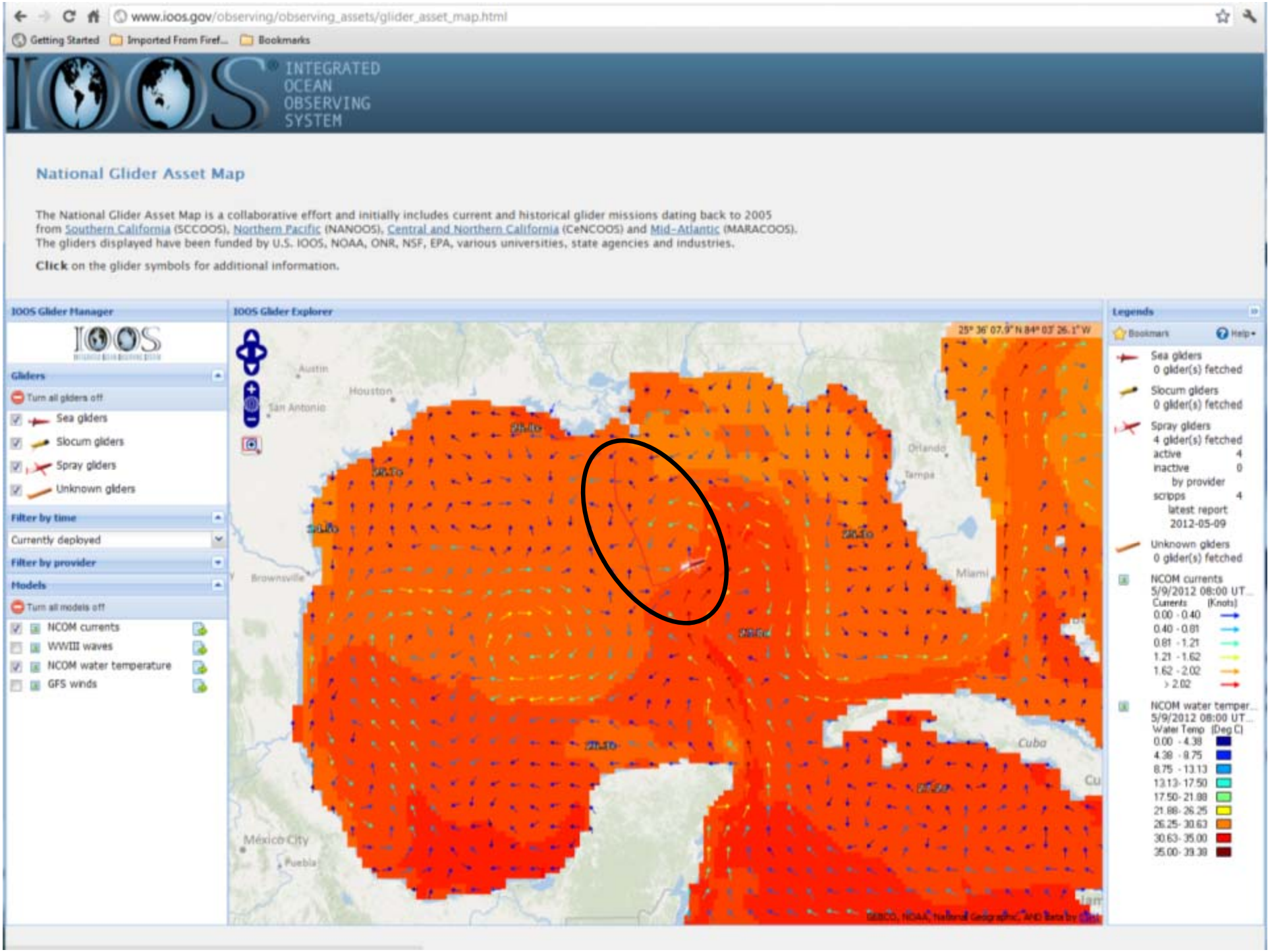
Turn all gliders off
Sea gliders
Slocum gliders
Spray gliders
Unknown gliders
Filter by time
Currently deployed
Filter by provider
Models
Turn all models off
NCOM currents
WWIII waves
NCOM water temperature
GFS winds
IOOS Glider Explorer
24° 38' 50.4" N 89° 06' 39.5" W
Austin
Houston
San Antonio
Orlando
Tampa
Miami
Brownsville
Gulf of Mexico
Mexico Basin
Yucatán Shelf
Yucatán Basin
Cuba
Cayman Ridge
México City
Puebla
Legends
Bookmark
Help
Sea gliders
0 glider(s) fetched
Slocum gliders
0 glider(s) fetched
Spray gliders
4 glider(s) fetched
active 4
inactive 0
by provider
scripps 4
latest report
2012-05-09
Unknown gliders
0 glider(s) fetched
NCOM currents
5/9/2012 08:00 UT...
Currents (Knots)
0.00 - 0.40
0.40 - 0.81
0.81 - 1.21
1.21 - 1.62
1.62 - 2.02
> 2.02
WWIII waves
5/9/2012 08:00 UT...
Wave Height (M)
0.00 - 0.88
0.88 - 1.75
1.75 - 2.63
2.63 - 3.50
3.50 - 4.38
4.38 - 5.25
5.25 - 6.13
6.13 - 7.00
7.00 - 7.88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NCOM currents
WWIII waves
NCOM water temperature
GFS winds
IOOS Glider Explorer
25° 36' 07.9" N 84° 03' 26.1" W
Austin
Houston
San Antonio
Orlando
Tampa
Miami
Brownsville
Cuba
México City
Puebla
Legends
Bookmarks
Help
Sea gliders
0 glider(s) fetched
Slocum gliders
0 glider(s) fetched
Spray gliders
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active 4
inactive 0
by provider
scripps 4
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5/9/2012 08:00 UT...
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0.00 - 0.40
0.40 - 0.81
0.81 - 1.21
1.21 - 1.62
1.62 - 2.02
> 2.02
NCOM water temper...
5/9/2012 08:00 UT...
Water Temp (Deg C)
0.00 - 4.38
4.38 - 8.75
8.75 - 13.13
13.13 - 17.50
17.50 - 21.88
21.88 - 26.25
26.25 - 30.63
30.63 - 35.00
35.00 - 39.38

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