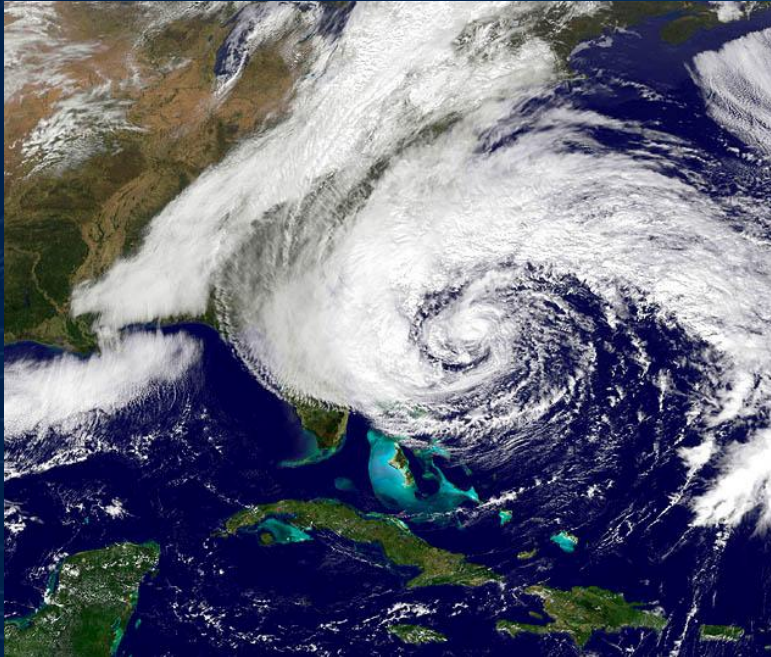


Coastal Resilience, Coastal Intelligence, and NOAA's Navigation Services

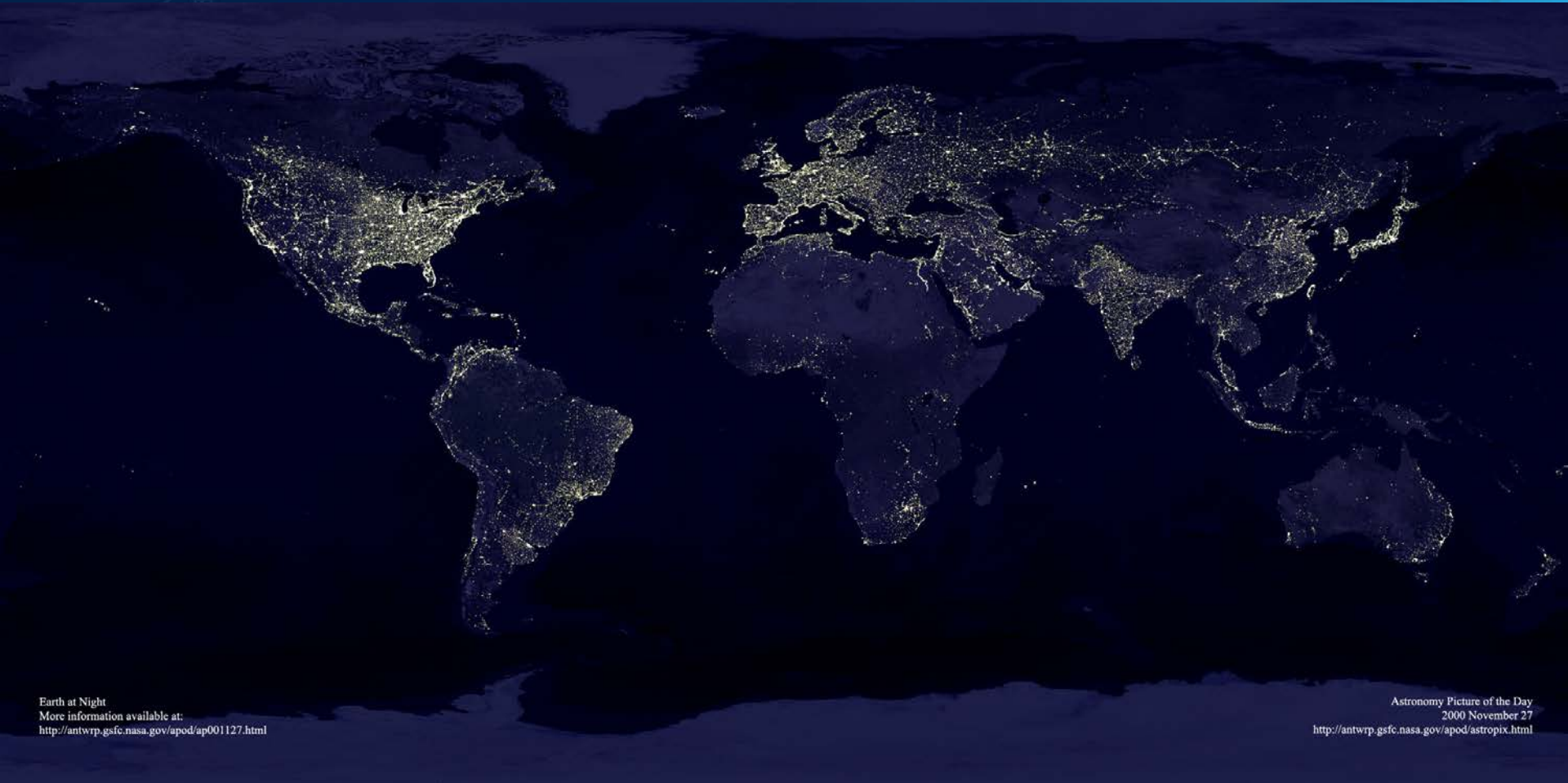


Holly A. Bamford, PhD
Assistant Administrator
NOAA's National Ocean Service

Hydrographic Services Review Panel
February 25, 2014



Coastal Vulnerability Around the World



Earth at Night
More information available at:
<http://antwrp.gsfc.nasa.gov/apod/ap001127.html>

Astronomy Picture of the Day
2000 November 27
<http://antwrp.gsfc.nasa.gov/apod/astropix.html>



America Was Born on the Coast



Americans Need Resilient Coasts



Coastal Communities: Steadily Growing

In 2010:

A small amount of land and a large
number of people means high density

Each box
represents 1
square mile.

 = 10 persons

39%
of the people on
10%
of the land

**Coastal
Shoreline Counties**

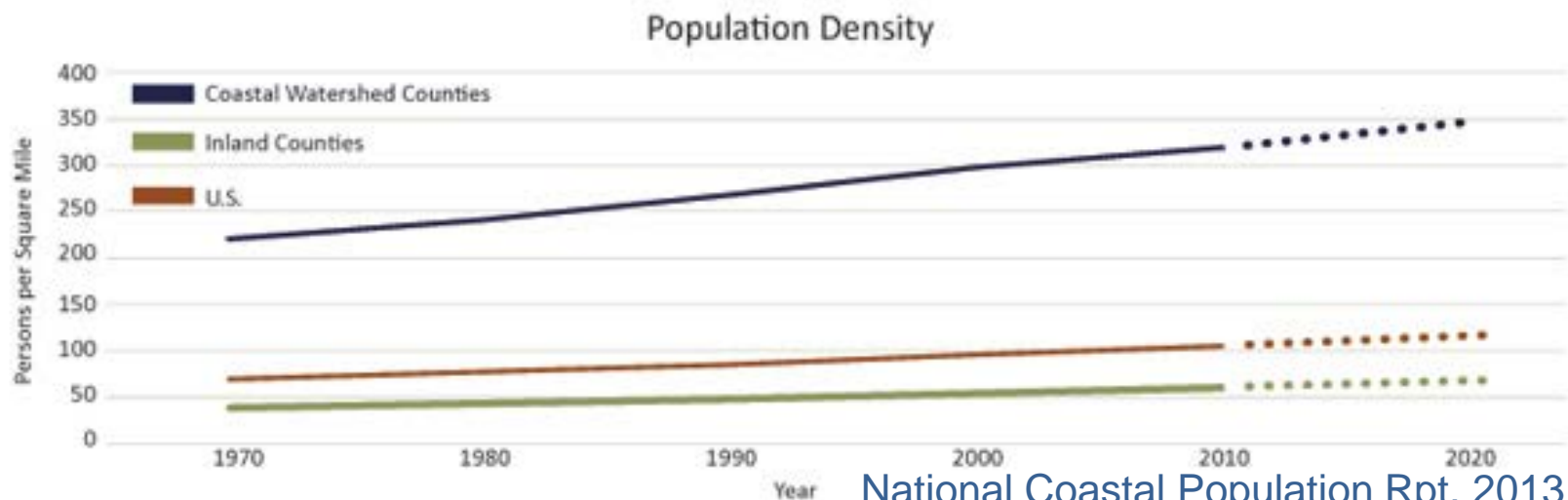
52%
of the people on
20%
of the land

**Coastal
Watershed Counties**

105 persons/mi²

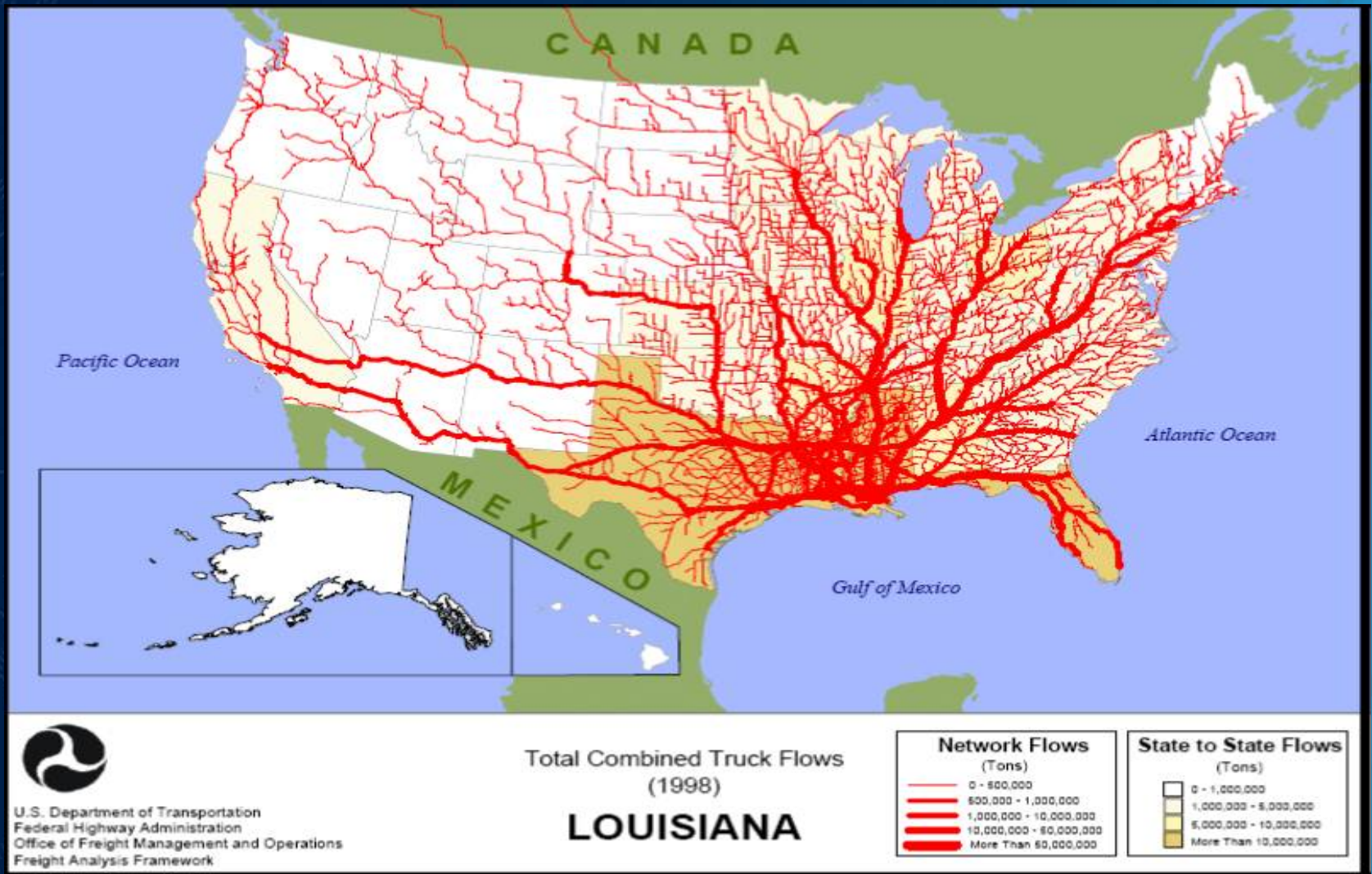


United States



National Coastal Population Rpt, 2013

A Coastal Nation



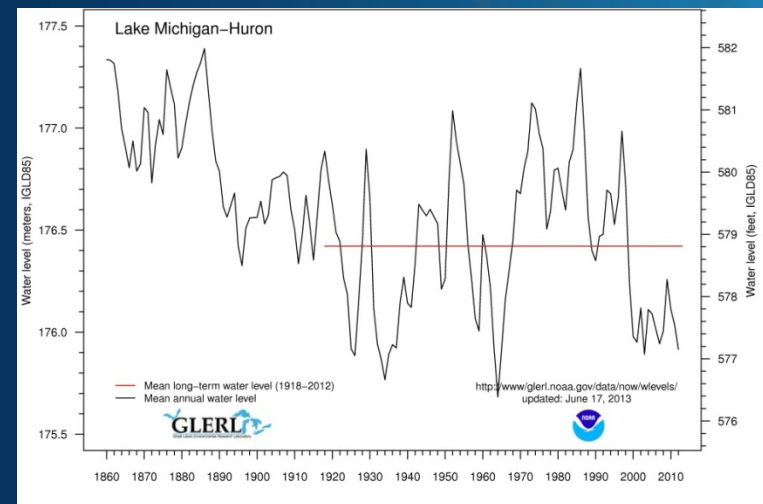
Coastal Economies:

Vital to U.S. and International Markets

- 98% of products in U.S reach us through ports.
- 45% of U.S. GDP is generated in coastal shoreline counties.
 - \$6.6 trillion
 - 51 million jobs & \$2.8 trillion in wages
- Coastal tourism and recreation is significant portion of U.S. economy.
 - Beach recreation alone ~\$30 billion annually.



What Does the Future Hold?



Billion Dollar Disasters: Fact of Life

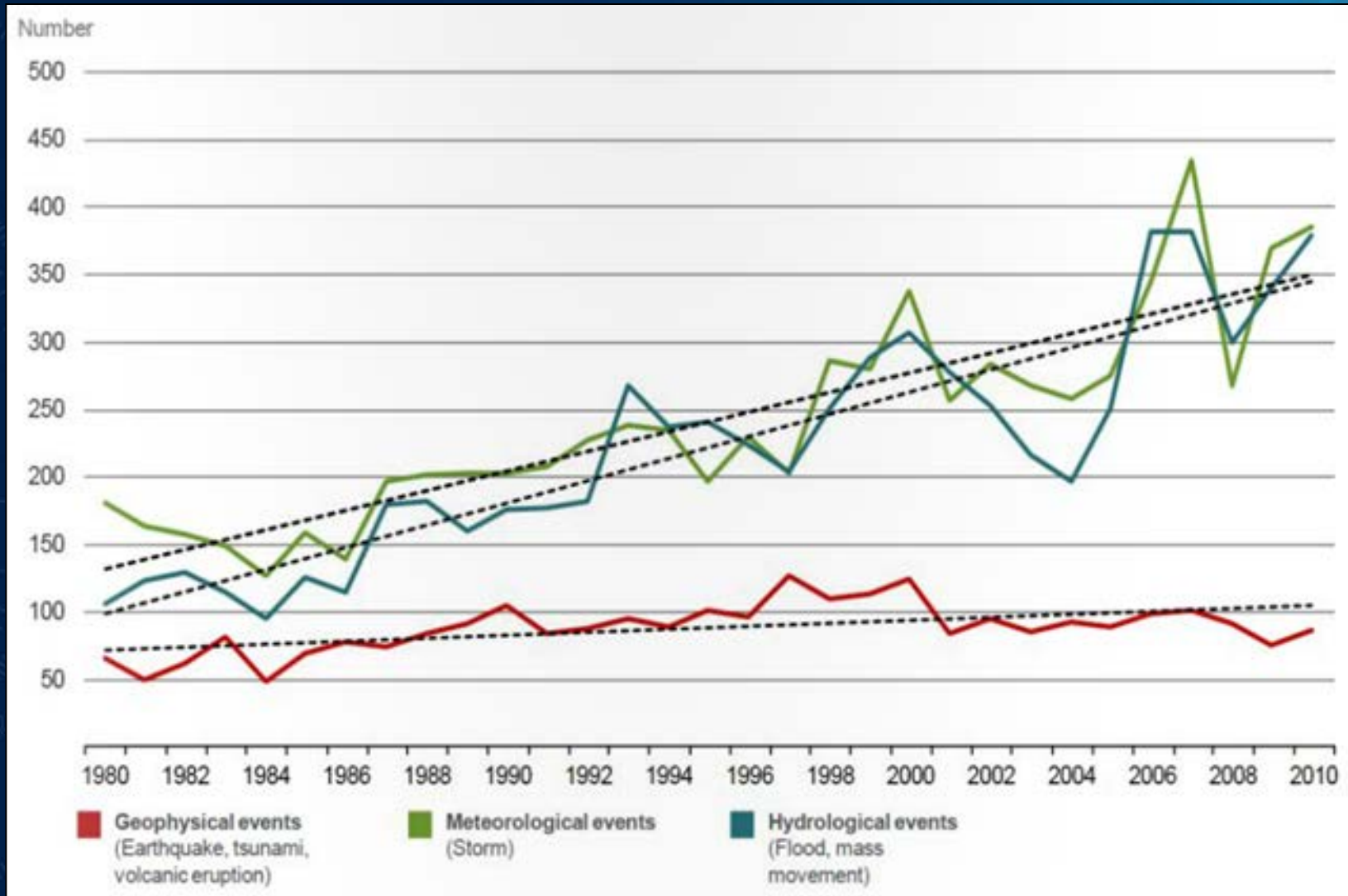
A Record 14 Disasters in the U.S. in 2011
Three more approaching \$1B



Source: NOAA



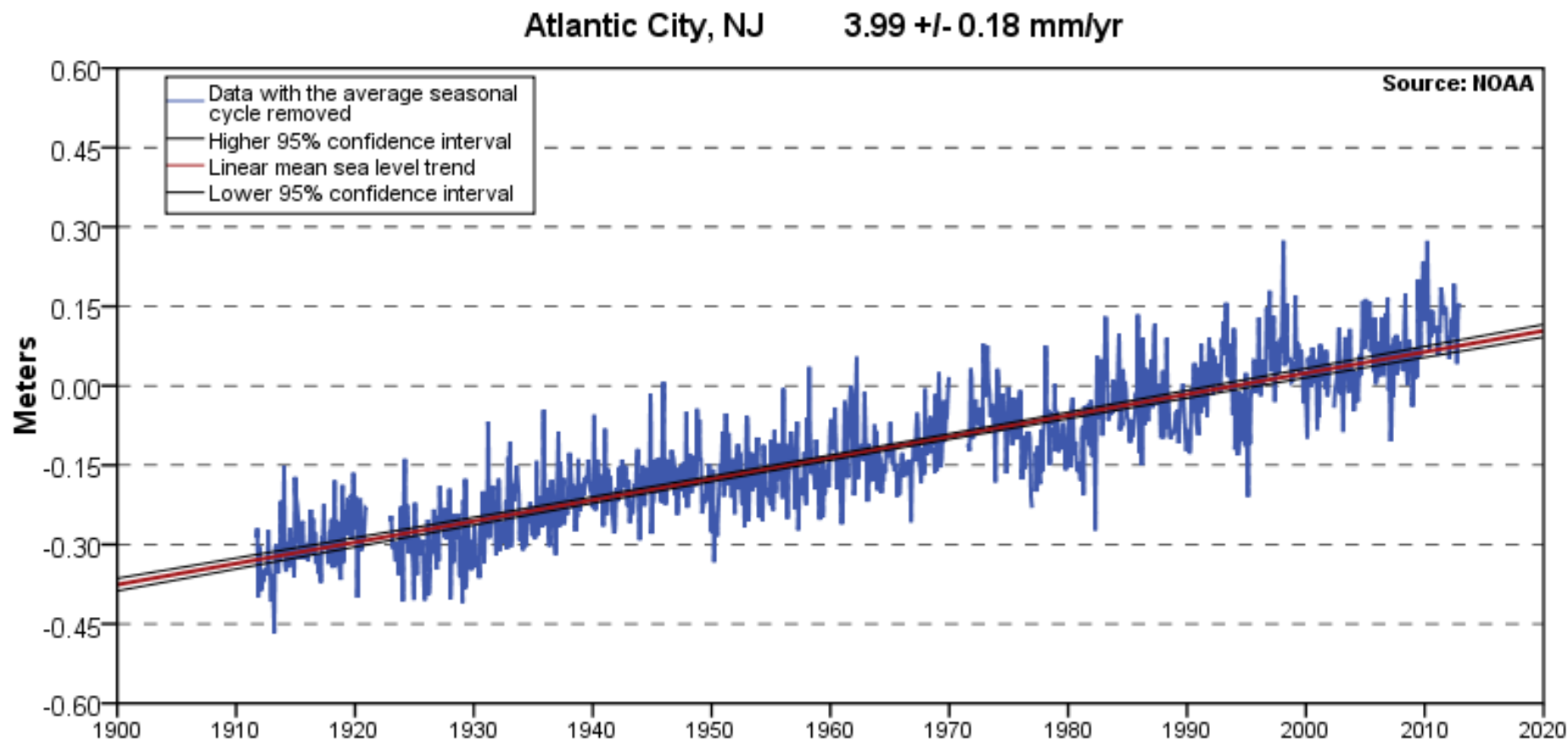
Weather-related versus Geophysical Events



Source: Munich RE



Sea Level Trend: Atlantic City, NJ



Mean Sea Level Trend



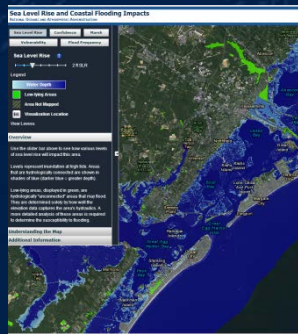
Sandy: A Turning Point?



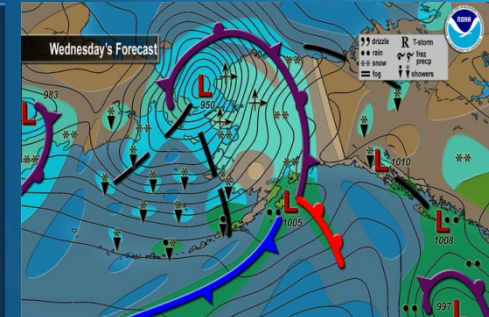
Coastal Intelligence

Planning for Long-Term Resilience

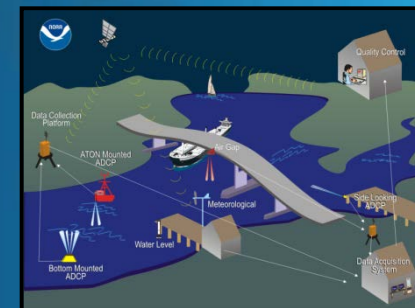
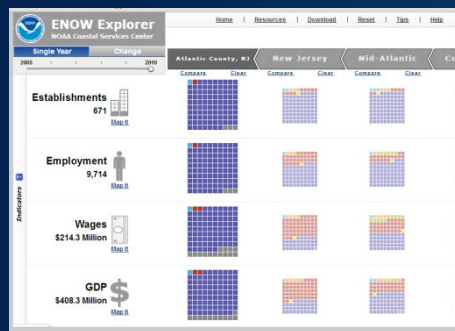
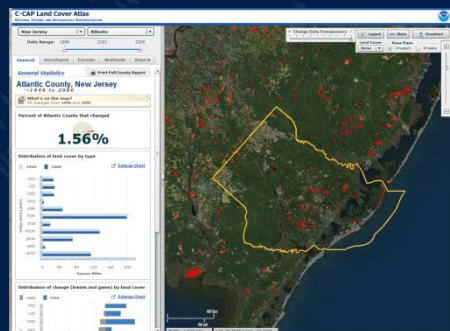
Promoting Resilience to Coastal Hazards and Climate Change



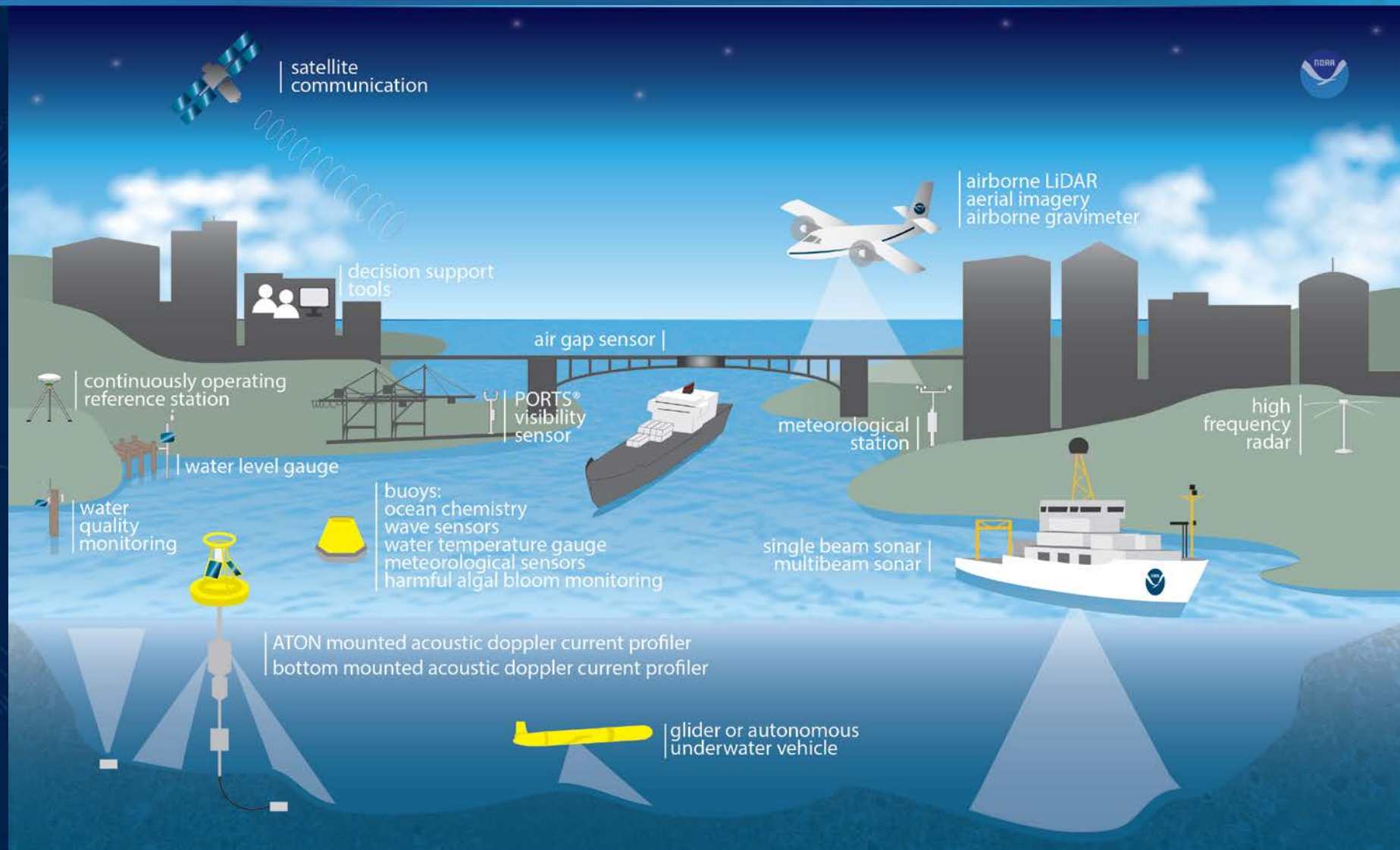
Building a Weather-Ready Nation



Supporting Community Livability



Coastal Intelligence: Foundational Data



Coastal Intelligence and the MTS

Things for FAC to consider:

- What should NOAA contribute or could contribute to the issue of coastal resiliency, such as through coastal intelligence?
- Where does informational infrastructure fall in prioritizing the need for infrastructure investment?
- How can NOAA better help U.S. ports be competitive globally? Or drive creation of U.S. jobs?
- How can NOAA better message its role in these developments and priorities of our Nation?

