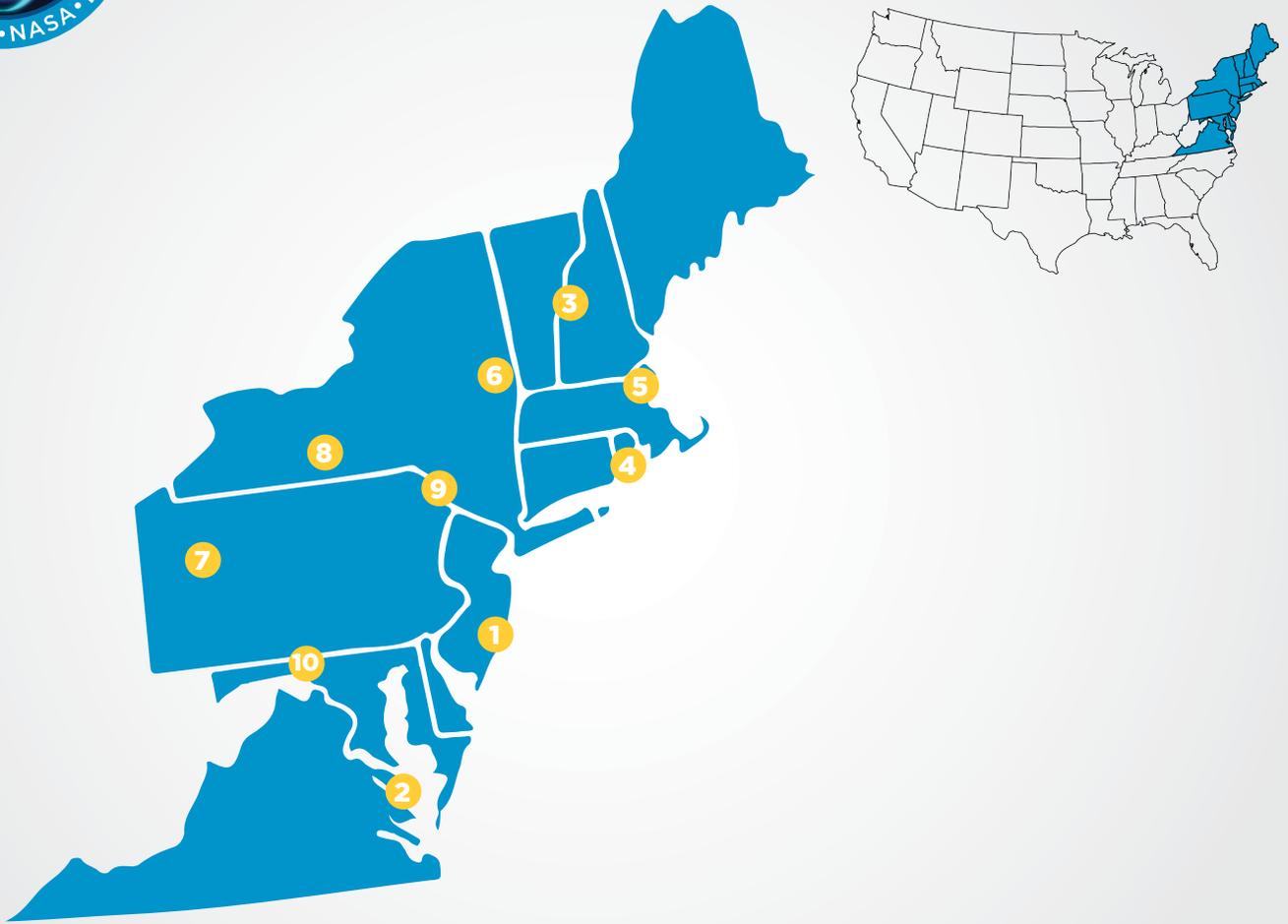




# NORTH ATLANTIC REGION



## SUPPORTING WEATHER FORECASTING IN YOUR REGION

The North Atlantic region hosts approximately 14 Weather Forecast Offices that receive direct data from JPSS. The 70 million people live mostly in coastal counties and this region is the oldest by population—residents who are particularly vulnerable to extreme weather events. The North Atlantic has four of the top ten most populated metro areas and five of the top 20 busiest ports in the country. The region has significant coastal-dependent industries such as commercial fishing, tourism and recreation.

In October 2012, Hurricane Sandy slammed into the New Jersey shoreline, with ferocious winds, rising sea levels and powerful storm surges. During the early stages of the storm’s development, polar-orbiting satellite data helped accurately predict Sandy’s hurricane track and infamous “left hook” landfall into New York and New Jersey—more than five days in advance. This advanced notice allowed emergency managers and state leaders to warn and evacuate communities in flood-prone areas and coastal zones.

## BILLION DOLLAR DISASTERS

\$ (in billions) (casualties)

1	Hurricane Sandy (2012)	68.3	159
2	Hurricane Isabel (2003)	7.2	55
3	Northeast Ice Storm (1998)	12.1	16
4	Northeast Flooding (2010)	1.7	11
5	Eastern Cold Wave (2015)	3.1	30
6	Hurricane Irene (2011)	14.4	45
7	Eastern Drought (2007)	4.1	15
8	Eastern Heat Wave (1999)	3.6	502
9	Tropical Storm Lee (2011)	2.7	21
10	Hurricane Ivan (2004)	26.2	57

Sampling of natural disasters costing over a billion dollars to the economy in the last 20 years in the North Atlantic region. Data credit: NCEI

# SUPPORTING A “WEATHER-READY NATION”

The Joint Polar Satellite System (JPSS) is the Nation’s advanced series of polar-orbiting environmental satellites. JPSS satellites provide sophisticated meteorological data and observations of atmosphere, ocean and land for short-term, seasonal and long-term monitoring and forecasting.

Specifically, data from the infrared and microwave sounding instruments is assimilated into numerical weather prediction models which forecast the path and intensity of severe weather events such as blizzards, storms, and hurricanes that can have devastating impacts on the North Atlantic region. The visible and infrared imaging capabilities of the satellite provide comprehensive Earth observation for mitigating hazardous events by monitoring the spread and impact of droughts and flooding events in the area.

JPSS satellites increase the timeliness and accuracy of forecasts three to seven days in advance of a severe weather event. NOAA’s National Weather Service uses JPSS data as critical input for numerical forecast models, providing the basis for these mid-range forecasts. These forecasts allow for early warnings and enable emergency managers to make timely decisions to protect American lives and property, including ordering effective evacuations.

JPSS satellites circle the Earth from pole-to-pole and cross the equator 14 times daily in the afternoon orbit—providing full global coverage twice a day. Polar satellites are considered the backbone of the global observing system.

Information from JPSS supports NOAA’s mission to ensure a more “Weather-Ready Nation.”

## Which industries benefit from JPSS data?

- Emergency management
- Agriculture
- Transportation
- Commercial aviation
- Regional general aviation
- Maritime transportation
- Commercial fishing industry
- Transoceanic container shipping industry
- Recreational boating
- Land transportation
- Defense
- Coastal community preparedness
- Tourism (land and ocean)
- Energy
- Construction
- Insurance
- Conservation
- Oil spill trajectories (ocean)
- Vegetation health

## PARTNERS IN YOUR REGION

JPSS commits to continually improving forecasting capabilities by leveraging its relationships with academic institutions, government agencies, ongoing research and development, and working closely with industry contractors.

### ACADEMIC AND INDUSTRY PARTNERS

- Boston University, MA
- Bowie State University, MD
- City College New York
- Cooperative Remote Sensing Science and Technology Center (CREST), City University of New York (CUNY)
- George Mason University, VA
- Hampton University, VA
- MIT Lincoln Lab, MA
- Morgan State University, MD
- NASA Goddard, Greenbelt, MD
- Orbital ATK, Dulles, VA
- Penn State University, PA
- Satellite Climate Studies Branch (SCSB) and Cooperative Institute for Climate and Satellites (CICS), University of Maryland College Park
- University of Maryland Baltimore County
- University of Maryland College Park (NOAA Cooperative Institute)
- University of Massachusetts

