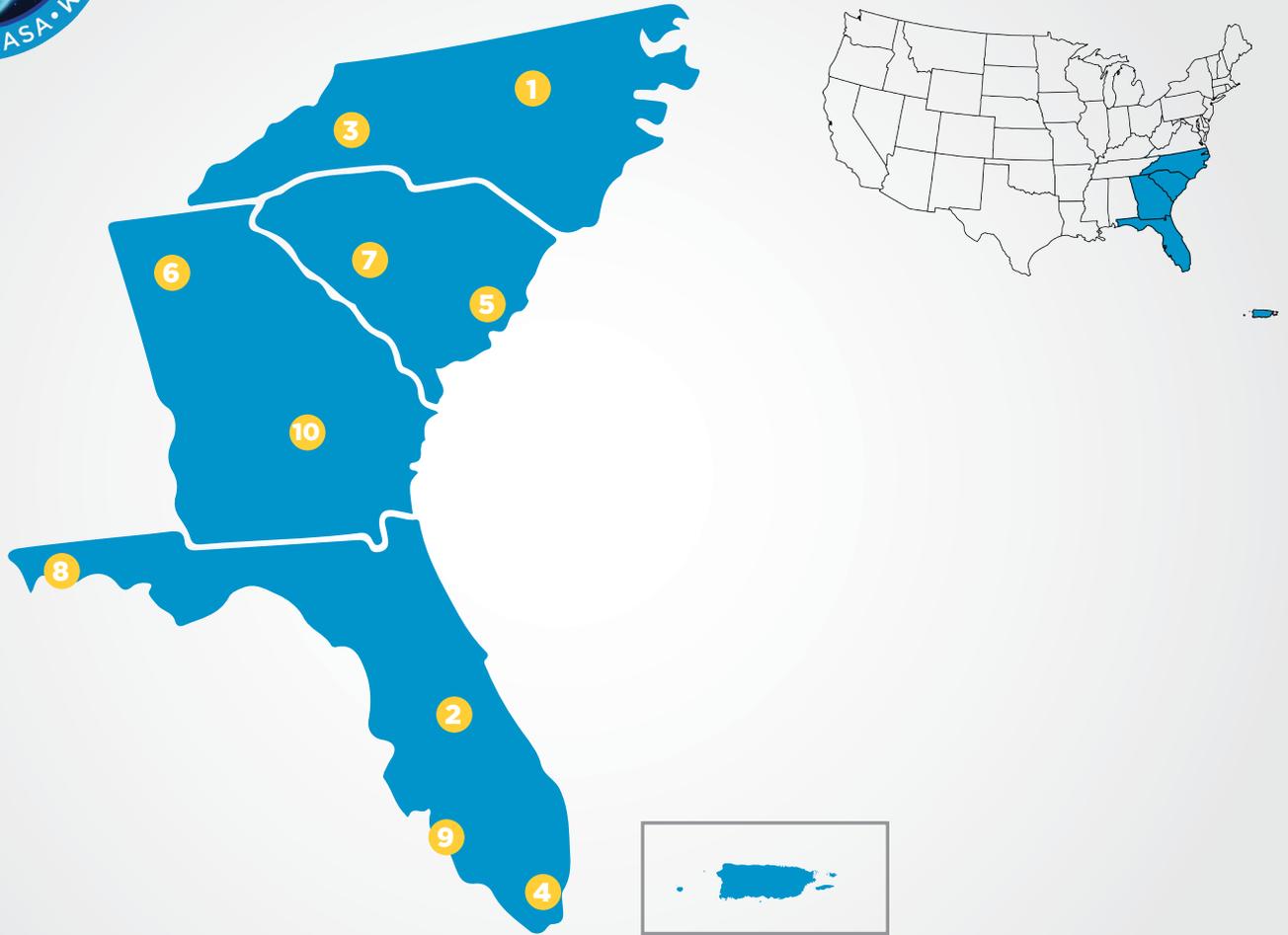




SOUTHEAST & CARIBBEAN REGION



SUPPORTING WEATHER FORECASTING IN YOUR REGION

The Southeast and Caribbean region hosts approximately 14 Weather Forecast Offices which receive direct data from JPSS to monitor weather and environmental conditions. More than 43 million people reside in the Southeastern states—with an additional 3.8 million living in the Caribbean territories of Puerto Rico and U.S. Virgin Islands. The Southeast’s climate is warm, wet and humid, with short winters and long summers. The majority of Southeastern states are close to the Gulf of Mexico and Atlantic Ocean, which introduces humidity, frequent thunderstorms and flooding. Coastal communities in the Southeast and Caribbean region also experience increased hurricane intensity and storm surge.

BILLION DOLLAR DISASTERS

\$ (in billions) (casualties)

| | | | |
|----|-------------------------------|-------|-------|
| 1 | Eastern Drought (2007) | 4.1 | 15 |
| 2 | Kissimmee Tornadoes (1998) | 1.5 | 132 |
| 3 | Hurricane Matthew (2016) | 10.0 | 49 |
| 4 | Hurricane Katrina (2005) | 153.8 | 1,833 |
| 5 | SC Flooding (2015) | 2.0 | 25 |
| 6 | Southeast Tornadoes (2012) | 3.3 | 42 |
| 7 | Southern Drought (1998) | 5.2 | 200 |
| 8 | Hurricane Ivan (2004) | 26.2 | 57 |
| 9 | Hurricane Charley (2004) | 21.1 | 35 |
| 10 | Dodge County Tornadoes (2011) | 3.0 | 9 |

Sampling of natural disasters costing over a billion dollars to the economy in the last 20 years in the Southeast and Caribbean 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, including the damaging tornadoes and hurricanes that affect the Southeast. The visible and infrared imaging capabilities of the satellite provide comprehensive Earth observation for mitigating hazardous events such as the droughts and floods that threaten this region.

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

- Cooperative Institute for Climate and Satellites (CICS), North Carolina State University
- NASA Kennedy Space Center, Cocoa Beach, FL
- NOAA, National Centers for Environmental Information, Asheville, NC
- University of Miami, FL
- University of Southern Mississippi



To learn more about the science behind JPSS, visit www.jpss.noaa.gov

To view an interactive tool that allows users to explore NOAA data, visit: www.nvli.noaa.gov/view