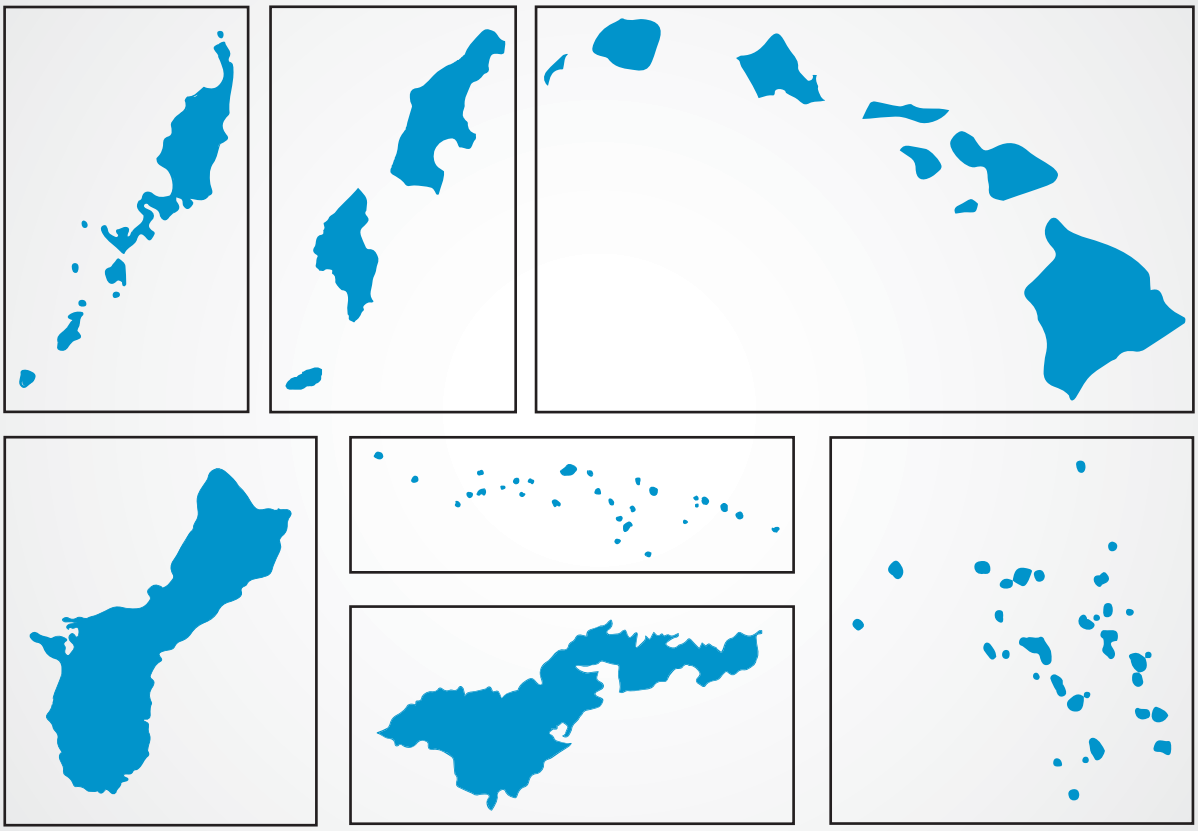
PACIFIC ISLAND
REGION



Note: Size and placement not to scale.

SUPPORTING WEATHER FORECASTING IN YOUR REGION

In the Pacific Island region, two Weather Forecast Offices receive direct data from JPSS, critical for providing an accurate forecast three to seven days in advance. This is NOAA's largest geographic region and has a population of almost 1.7 million people. The distinctive geography and coastal exposure present acute vulnerability to hazards and climate variables that threaten island wildlife and ecosystems. Severe weather events such as typhoons, tornados, tsunamis, heavy rains, droughts and tropical cyclones affect the Pacific Island region. These events can be extremely detrimental to Hawaii's tourism industry which generates on the order of $15 billion annually. The tourism and fishing industries are also negatively impacted by harmful microalgal blooms, a reoccurring problem along the Kihei coast that has resulted in more than $20 million in lost revenue.

Data credit: Hawaii Tourism Authority

Hurricane Iwa (Category 1)
Year: 1982
Cost: $312,000,000
Casualties: 4

Hurricane Iniki (Category 4)
Year: 1992
Cost: $5,000,000,000
Casualties: 7

Hurricane Iselle (Category 4)
Year: 2014
Cost: $79,200,000
Casualties: 0

Sampling of recent damaging hurricanes in the Pacific 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 the damaging hurricanes that threaten the Pacific Island region. The visible and infrared imaging capabilities of the satellite provide comprehensive Earth observation for mitigating hazardous events including wildfires, oil spills, harmful algal blooms, drought and floods.

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

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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.nnvl.noaa.gov/view**