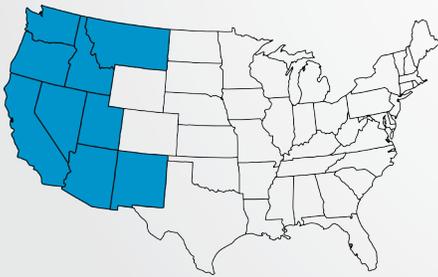




# WESTERN REGION



## SUPPORTING WEATHER FORECASTING IN YOUR REGION

With a population of over 73 million people, the Western region is one of the largest U.S. regions in terms of geography and is a mix of urban and rural communities along with 221 tribal entities. The region covers 1.2 million square miles and is comprised of topographic extremes with both the highest summit in the contiguous U.S., Mount Whitney, and the lowest point, Badwater Death Valley National Park. Twenty-five Weather Forecast Offices across this region receive direct data from JPSS to monitor and forecast weather in this diverse region which can significantly impact the local economy. Outdoor recreation and tourism accounts for \$194 billion in annual spending and the region is dependent on environmental resource sectors such as timber, fishing, mining and agriculture.

Data credit: [www.regions.noaa.gov](http://www.regions.noaa.gov)

## BILLION DOLLAR DISASTERS

\$ (in billions)  (casualties)

1	U.S. Drought (2012)	31.5	123
2	California Wildfires (2003)	5.1	22
3	Western Wildfires (2007)	3.1	12
4	AZ Severe Weather (2010)	4.2	0
5	Hurricane Dolly (2008)	1.5	3
6	Western Plains Drought (2013)	10.7	53
7	Southwest Heat Wave (2011)	12.8	95
8	Western Drought (2000)	4.1	0
9	CA Freeze (2007)	1.6	1
10	Western Drought (2000)	7.0	140

Sampling of billion dollar disasters over the last 20 years in the Western 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 severe storms and intense snowfall. The visible and infrared imaging capabilities of the satellite provide comprehensive Earth observation for mitigating hazardous events common to the Western region, including devastating droughts and raging wildfires.

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 Oceanographic Satellite Studies (CIOSS), Oregon State University
- Microsemi Corporation, Aliso Viejo, CA
- Northrup Grumman Aerospace Systems, Redondo Beach, CA
- Northrup Grumman Electronic Systems, Azusa, CA
- Orbital ATK, Gilbert, AZ
- Oregon State University (NOAA Cooperative Institute)
- Raytheon Space and Airborne Systems, El Segundo, CA
- University of Southern California
- Utah State University (Space Dynamic Laboratory)

