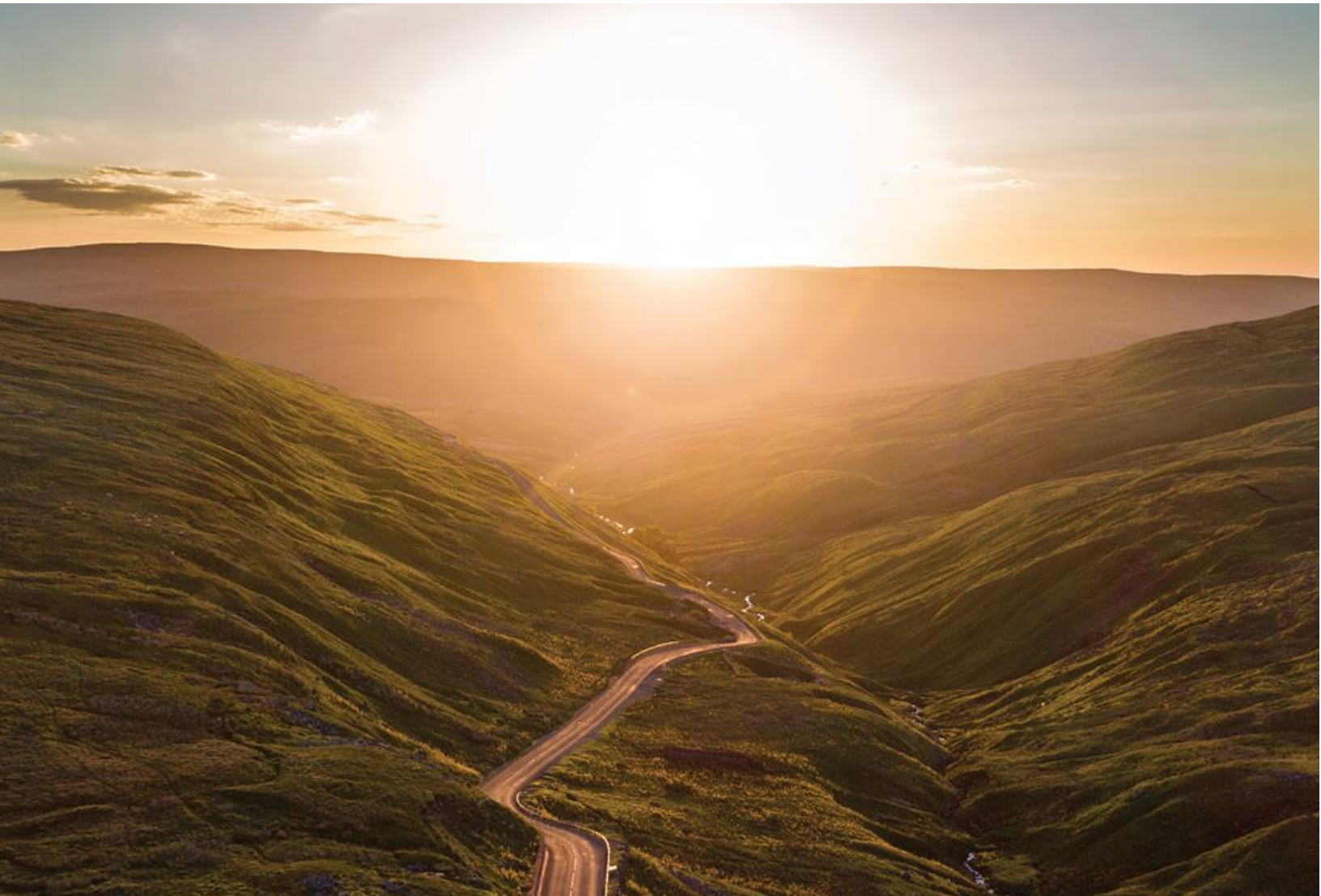
Weekly Cat Report

December 2, 2022



Executive Summary

Event	Affected Region(s)	Fatalities	Economic Loss ($)	Page
Severe Convective Storm	United States	2	100s of Millions	3
Flooding	Saudi Arabia	2	Millions	5
Flooding & Landslides	Italy	12	Millions	5
Flooding & Landslides	Cameroon	14+	Unknown	5
Flooding	Indonesia	1	Unknown	5

Please note that any financial loss estimate is preliminary and subject to change. These estimates are provided as an initial view of the potential financial impact from a recently completed or ongoing event based on early available assessments. Significant adjustments may inevitably occur. All losses in US dollars ($) unless noted otherwise.

Along with this report, we continue to welcome users to access current and historical natural catastrophe data and event analysis on Impact Forecasting's Catastrophe Insight website: http://catastropheinsight.aon.com

United States: Severe Convective Storm

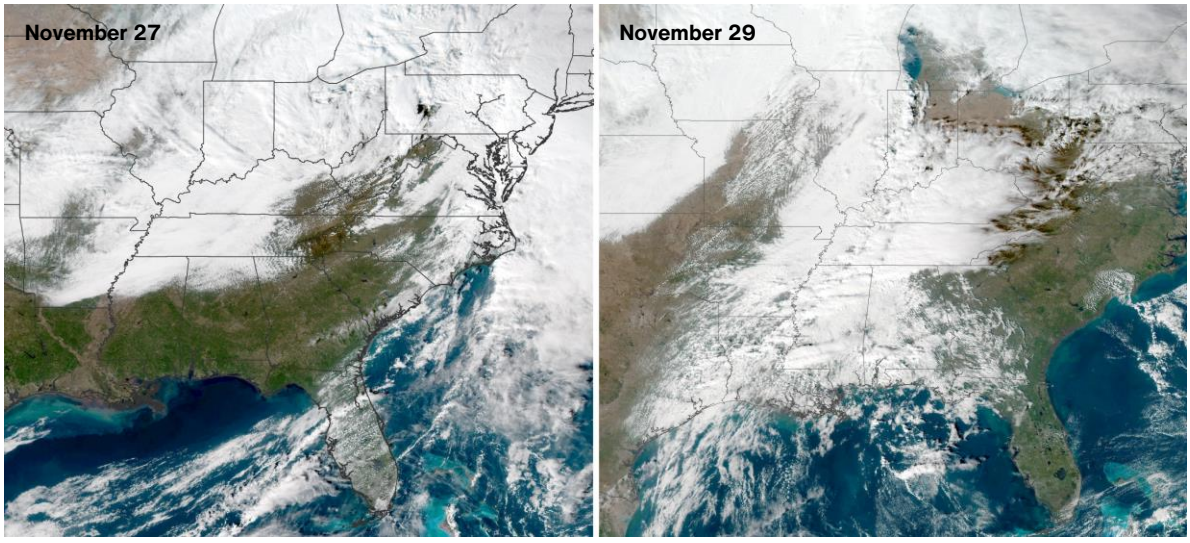
Overview

United States saw two separate severe convective storm outbreaks in late November (27 & 29), each with notable impacts. In particular, the late-season tornado outbreak on November 29, which affected the Lower Mississippi Valley, resulted in two fatalities and several injuries, along with notable material damage. Total economic and insured losses were expected to run well into the tens of millions USD, likely higher.

Meteorological Recap

A frontal system associated with a surface low-pressure area progressed through Midwest towards the U.S. Northeast on November 27. Strong winds, large hail and locally heavy rain particularly affected northern West Virginia and parts of southwest Pennsylvania.

A couple of days later, the National Weather Service warned of moderate thunderstorm risk for lower Mississippi Valley, with a possibility of tornadic activity and heavy rainfall. Strong frontal boundary, associated with a deepening wave of low pressure over the Central Plains, advanced eastward and influx of moisture from the Western Gulf of Mexico into the lower Mississippi Valley region and the Upper Great Lakes aided in storm development. Resulting showers and thunderstorms locally generated associated hazards, including hail, wind and heavy rainfall.



Event Details

On November 27, hailstones with maximum diameter of 2 inches was reported in Fayette and Washington counties. Majority of storm reports consisted of damaging wind observations in Fayette, Westmoreland, Monroe, Wood, Washington counties and elsewhere. Highest wind gust reported was 87 mph (140 kph).

Two people were killed on November 29 by a tornado in Montgomery County of Alabama near Boylston. Reports of multiple tornado touchdowns also came from other parts of Alabama, Louisiana, and Mississippi. For example, a large tornado caused structural damage and four injuries in Caldwell Parish of Louisiana. In total, 73 tornado warnings were issued throughout the outbreak.

Largest hailstones recorded on November 29 were reported from Carroll and Amite Counties of Mississippi, with other affected areas located in Louisiana, Tennessee, Texas, Kentucky or Arkansas. Tens of thousands of power outages were reported due to downed power lines across the Southeast

Financial Loss

Total economic losses from both outbreaks were expected to run well into the tens of millions USD, likely higher, and insurance sector was likely to cover majority of that cost.

Natural Catastrophes: In Brief

Flooding (Saudi Arabia)

Record-breaking rainfall with 179 mm (7.0 in) in just six hours flooded Jeddah, Saudi Arabia on November 24. Two people were killed. Flights and road traffic were disrupted for hours as major roads and highways were inundated. Several streets in the residential areas were flooded and caused breakdown to at least hundreds of vehicles. Schools were closed in Jeddah, Rabigh, and Khulais. The economic losses were expected to reach into the millions (USD).

Flooding & Landslides (Italy)

Area of low pressure continues to bring heavy rainfall associated with flooding and landslides in several parts of Italy. On November 26, intense rainfall up to 80 mm (3.1 in) in less than five hours triggered flash flooding and massive landslides on the Ischia Island, southern Italy, claiming at least 11 lives and five injuries, while one person remained missing at the time of this writing, according to authorities. About 30 houses were damaged, dozens of vehicles were swept into the sea, and hundreds of people were forced to evacuate. An initial relief fund of €2 million ($2 million) was released after local government declared the state of emergency.

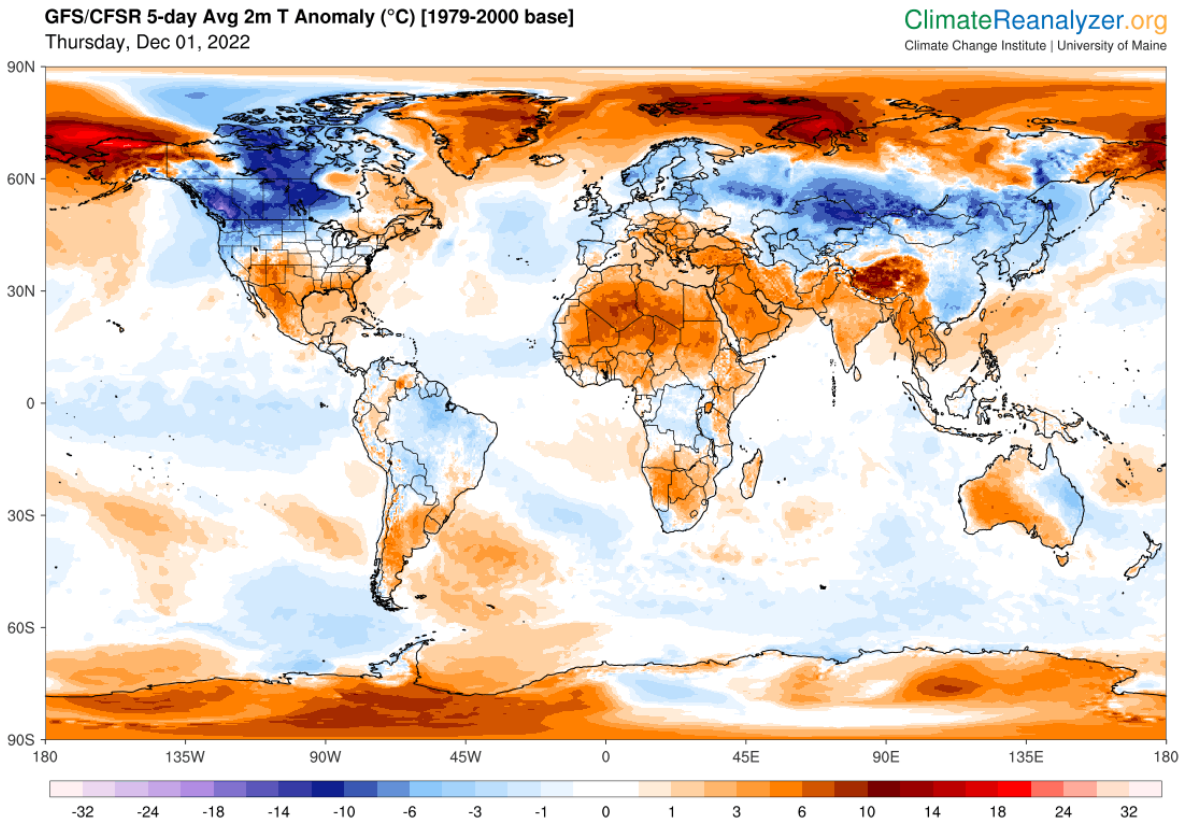
Flooding & Landslides (Cameroon)

At least fourteen people died in landslide that occurred in Cameroon's capital Yaounde on November 27. Several people are still missing. Significant material damage was not incurred. Above-average rainfall have triggered severe flooding and many landslides event this year across West and Central Africa, including Cameroon.

Flooding (Indonesia)

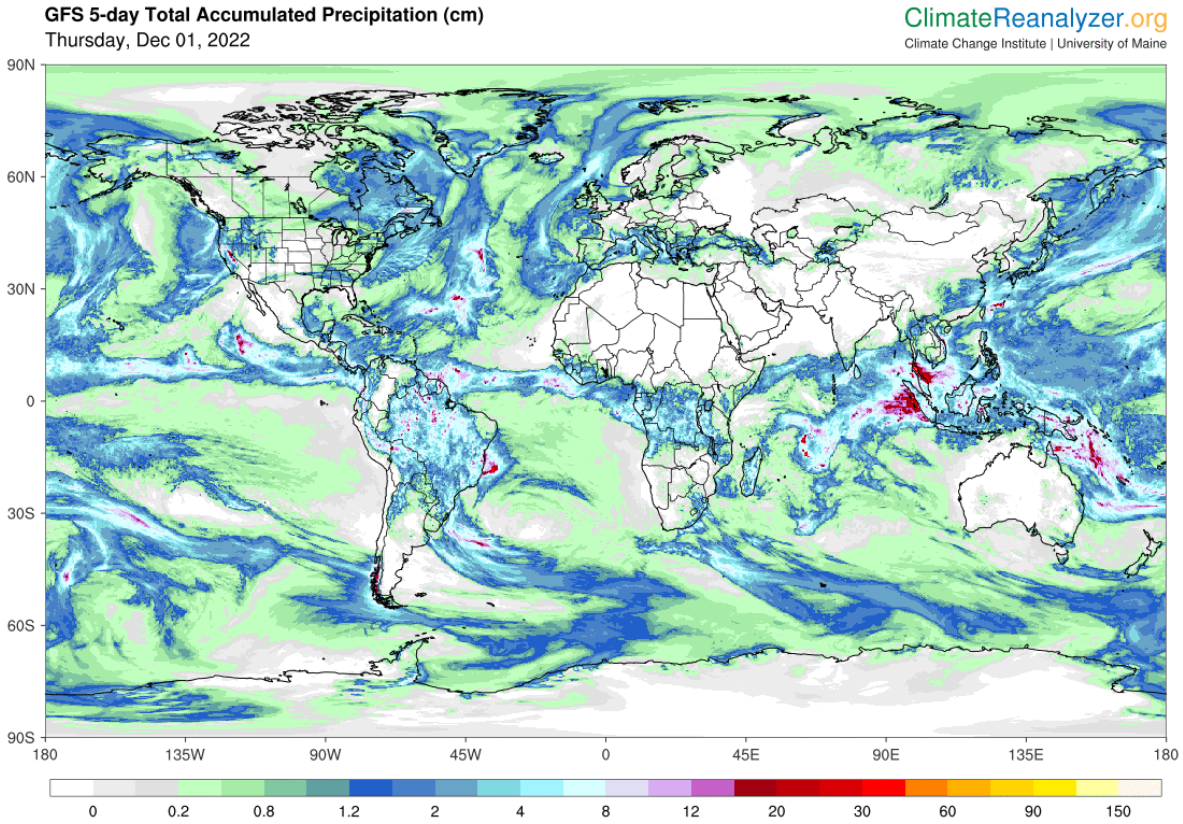
Heavy rainfall and strong winds resulted in casualties and material damage on the eastern Java Island, Indonesia on November 25-27. The ASEAN Disaster Information Network (ADINet) reported one dead, about 12,750 affected people and more than 2,500 flooded buildings across the East Java Province.

Global Temperature Anomaly Forecast



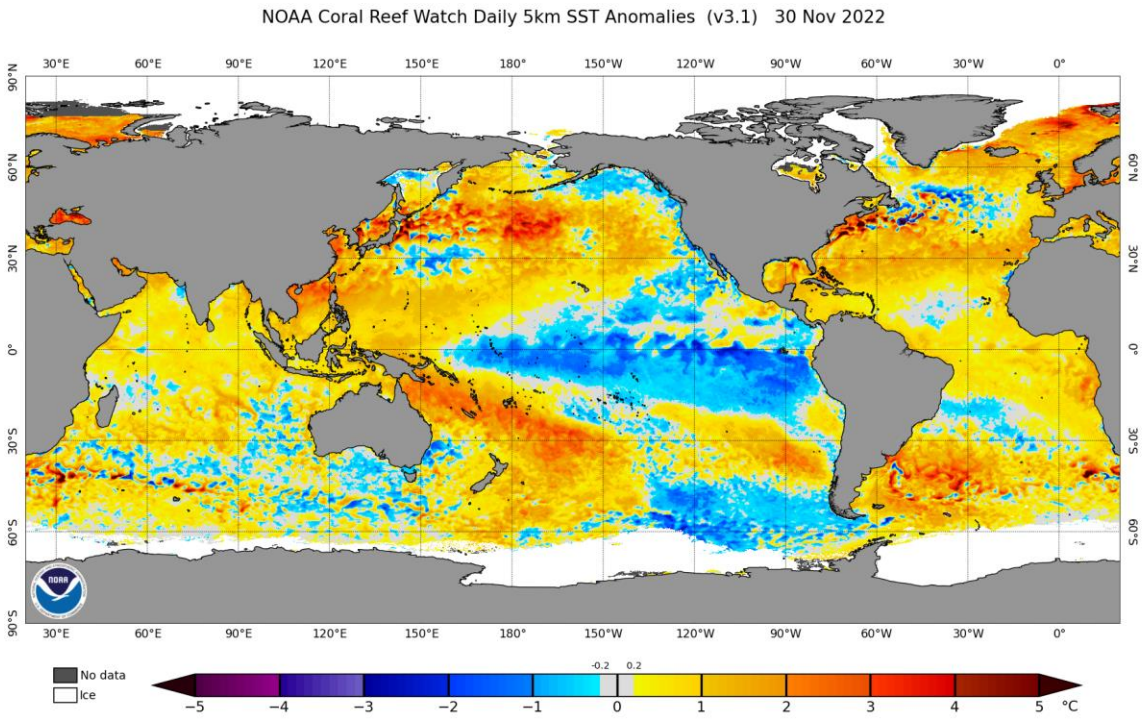
Source: Climate Reanalyzer, Climate Change Institute, University of Maine, USA

Global Precipitation Forecast

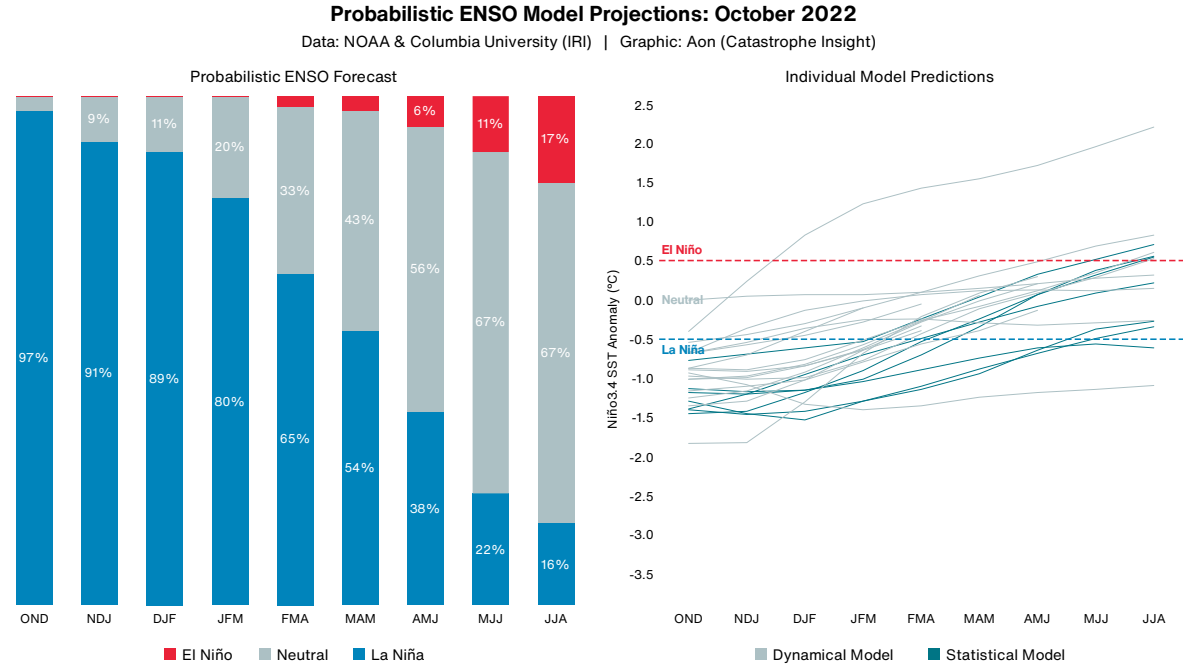


Source: Climate Reanalyzer, Climate Change Institute, University of Maine, USA

Weekly Sea Surface Temperature (SST) Maps (°C)



El Niño-Southern Oscillation (ENSO)



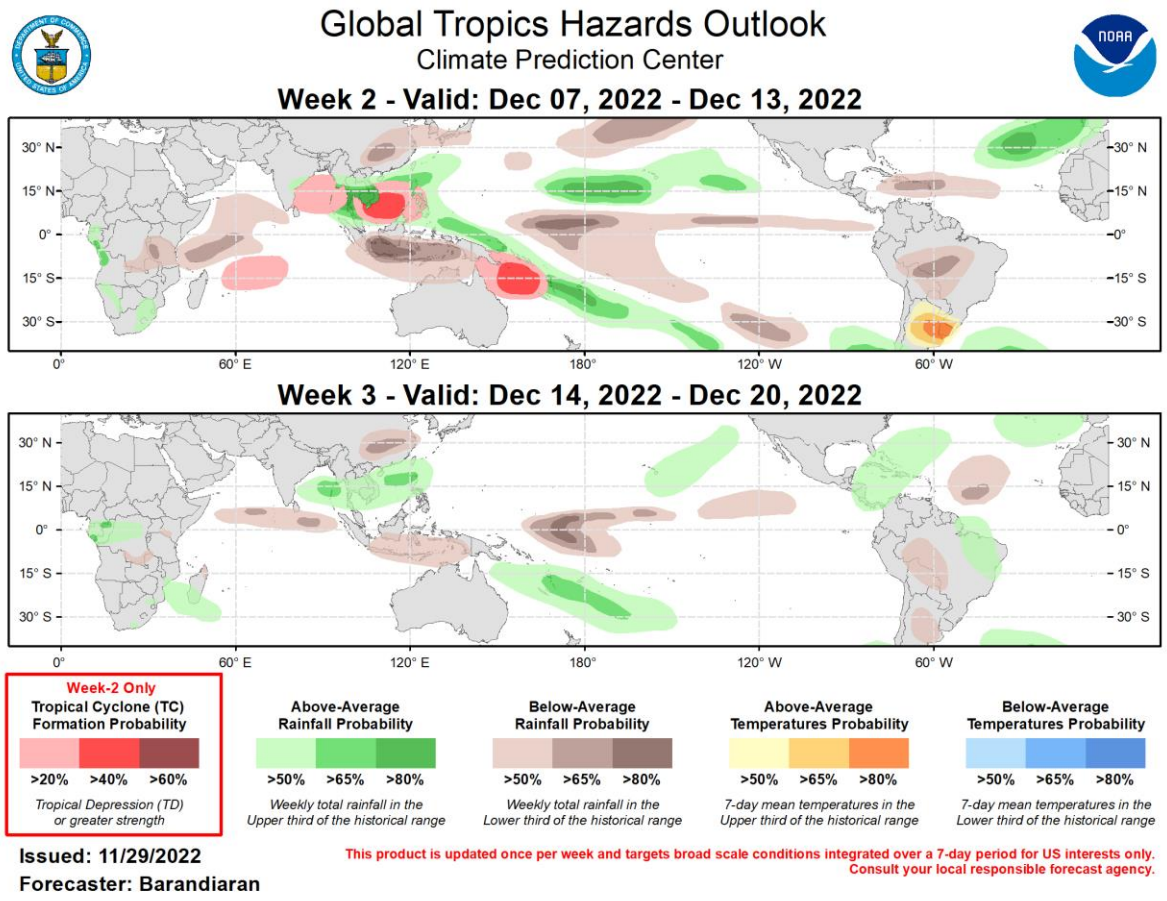
El Niño: *Warm phase of an ENSO cycle. Sea surface temperatures of +0.5°C occur across the east-central equatorial Pacific.*

La Niña: *Cool phase of an ENSO cycle. Sea surface temperatures of -0.5°C occur across the east-central equatorial Pacific.*

Neutral: *A period when neither El Niño nor La Niña conditions are present.*

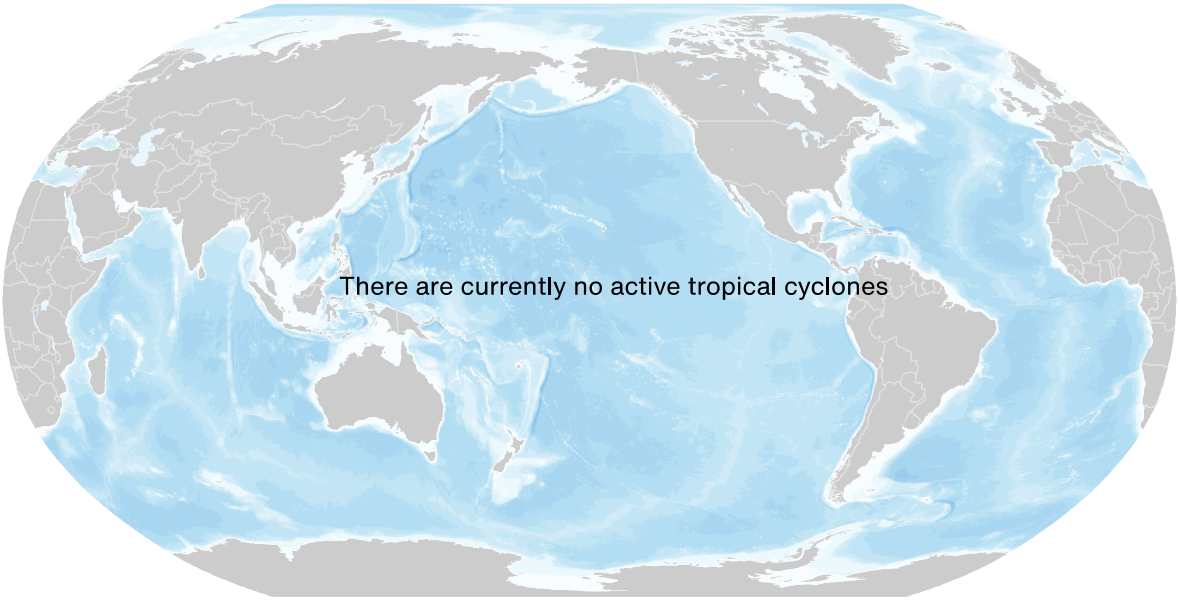
El Niño (La Niña) is a phenomenon in the equatorial Pacific Ocean characterized by a five consecutive 3-month running mean of sea surface temperature (SST) anomalies in the Niño 3.4 region that is above the threshold of +0.5°C (-0.5°C). This is known as the Oceanic Niño Index (ONI).

Global Tropics Outlook



Source: Climate Prediction Center (NOAA)

Current Tropical Cyclone Activity



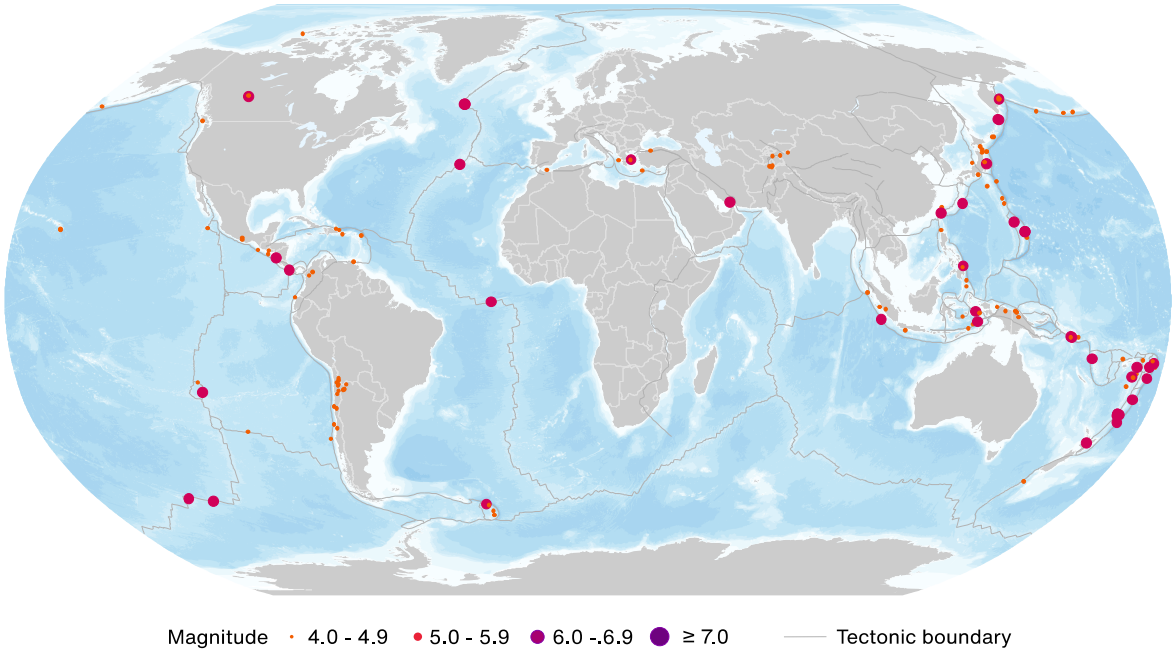
Tropical Depression Tropical Storm Category 1 Category 2 Category 3 Category 4 Category 5

Storm Name	Location	Winds	Location from Nearest Land Area

* TD: Tropical Depression, TS: Tropical Storm, HU: Hurricane, TY: Typhoon, CY: Cyclone
** N: North, S: South, E: East, W: West, NW: Northwest, NE: Northeast, SE: Southeast, SW: Southwest

Source: National Hurricane Center, Joint Typhoon Warning Center, Central Pacific Hurricane Center (NOAA)

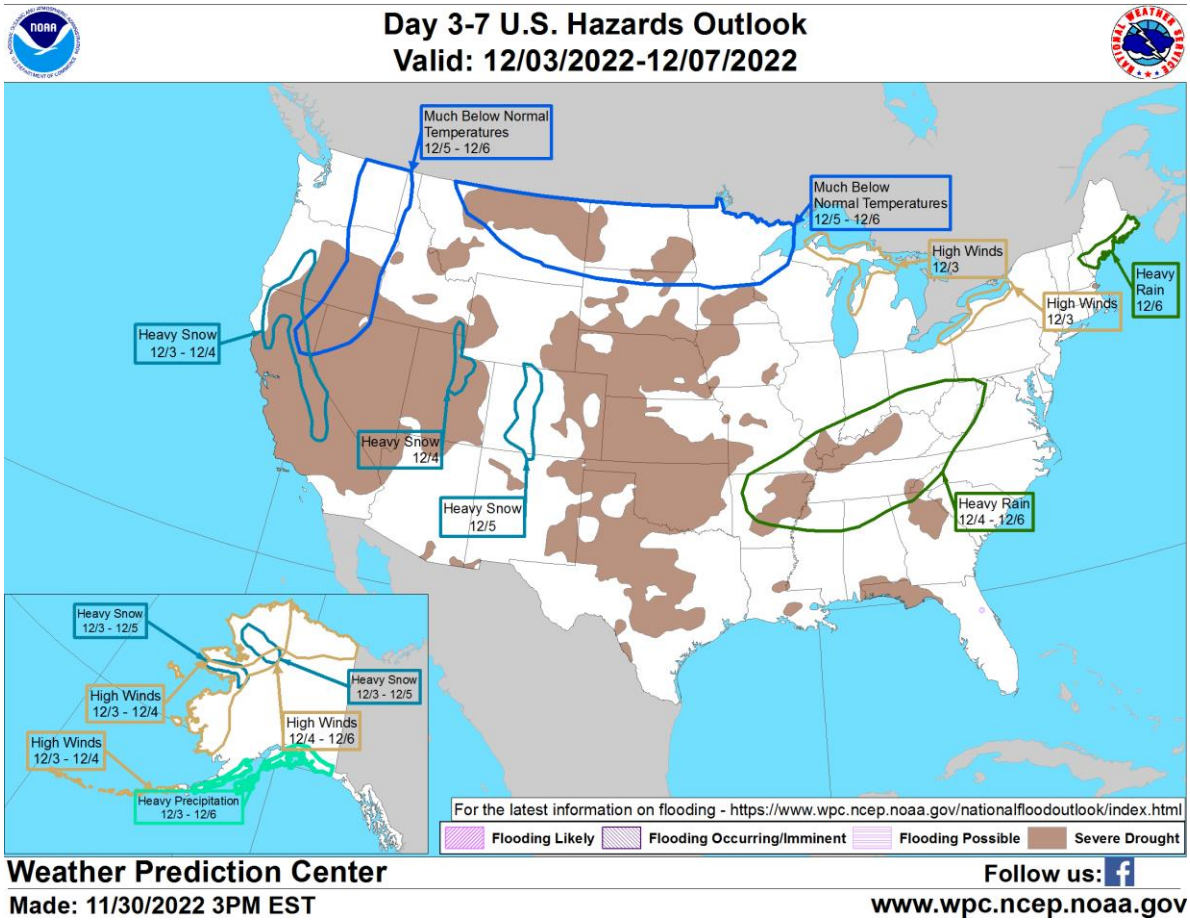
Global Earthquake Activity (≥M4.0): Nov 25 – Dec 1



Date (UTC)	Location	Magnitude	Epicenter

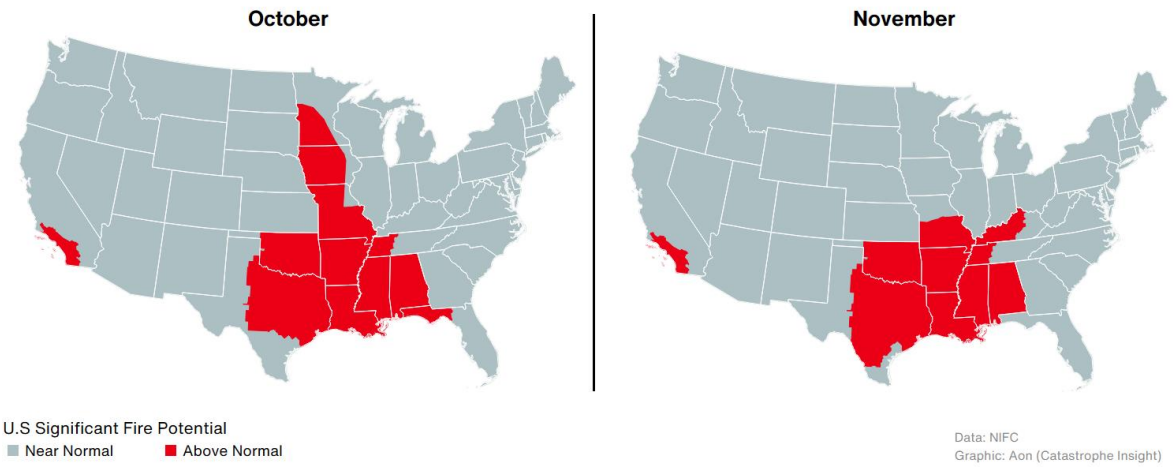
Source: United States Geological Survey

U.S. Hazard Outlook



Source: Climate Prediction Center (NOAA)

U.S. Wildfire: Significant Fire Risk Outlook & Activity



Annual YTD Wildfire Comparison: November 22

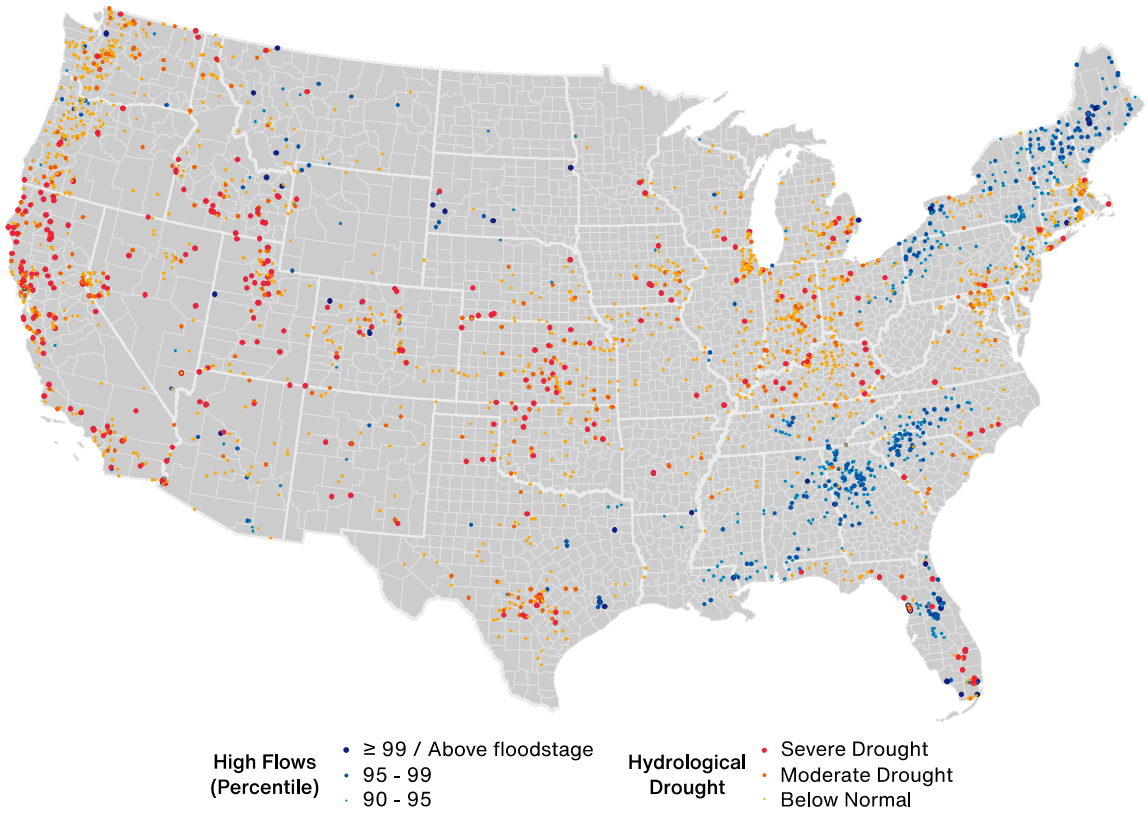
Year	Number of Fires	Acres Burned	Acres Burned Per Fire
2018	51,898	8,512,844	164
2019	45,959	4,602,023	100
2020	50,012	8,755,129	175
2021	49,752	6,546,939	132
2022	61,390	7,251,835	118
10-Year Average (2012-2021)	52,007	6,859,200	132

Top 5 Most Acres Burned by State: November 22

State	Number of Fires	Acres Burned	Acres Burned Per Fire
Alaska	595	3,110,976	5,229
New Mexico	733	858,809	1,172
Texas	11,217	666,594	59
Oregon	1,958	445,343	227
Idaho	1,045	401,143	384

Source: National Interagency Fire Center

U.S. Current Riverine Flood Risk



A ≥99th percentile indicates that estimated streamflow is greater than the 99th percentile for all days of the year. This methodology also applies for the other two categories. A steam in a state of severe drought has 7-day average streamflow of less than or equal to the 5th percentile for this day of the year. Moderate drought indicates that estimated 7-day streamflow is between the 6th and 9th percentile for this day of the year and 'below normal' state is between 10th and 24th percentile.

Source: United States Geological Survey

Source Information

United States: Severe Convective Storm

National Weather Service

At least 2 killed in Alabama as severe storms and tornadoes sweep across the South. CNN

Natural Catastrophes: In Brief

European Severe Weather Database (ESWD)

ReliefWeb

Italy declares state of emergency in Ischia following devastating landslide, *France24*

Landslide in Ischia: eight confirmed victims, four missing. Investigations are made into illegal activity and failed demolitions, *ANSA*

Landslide Kills at Least 14 at Funeral in Cameroon, *The New York Times*

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