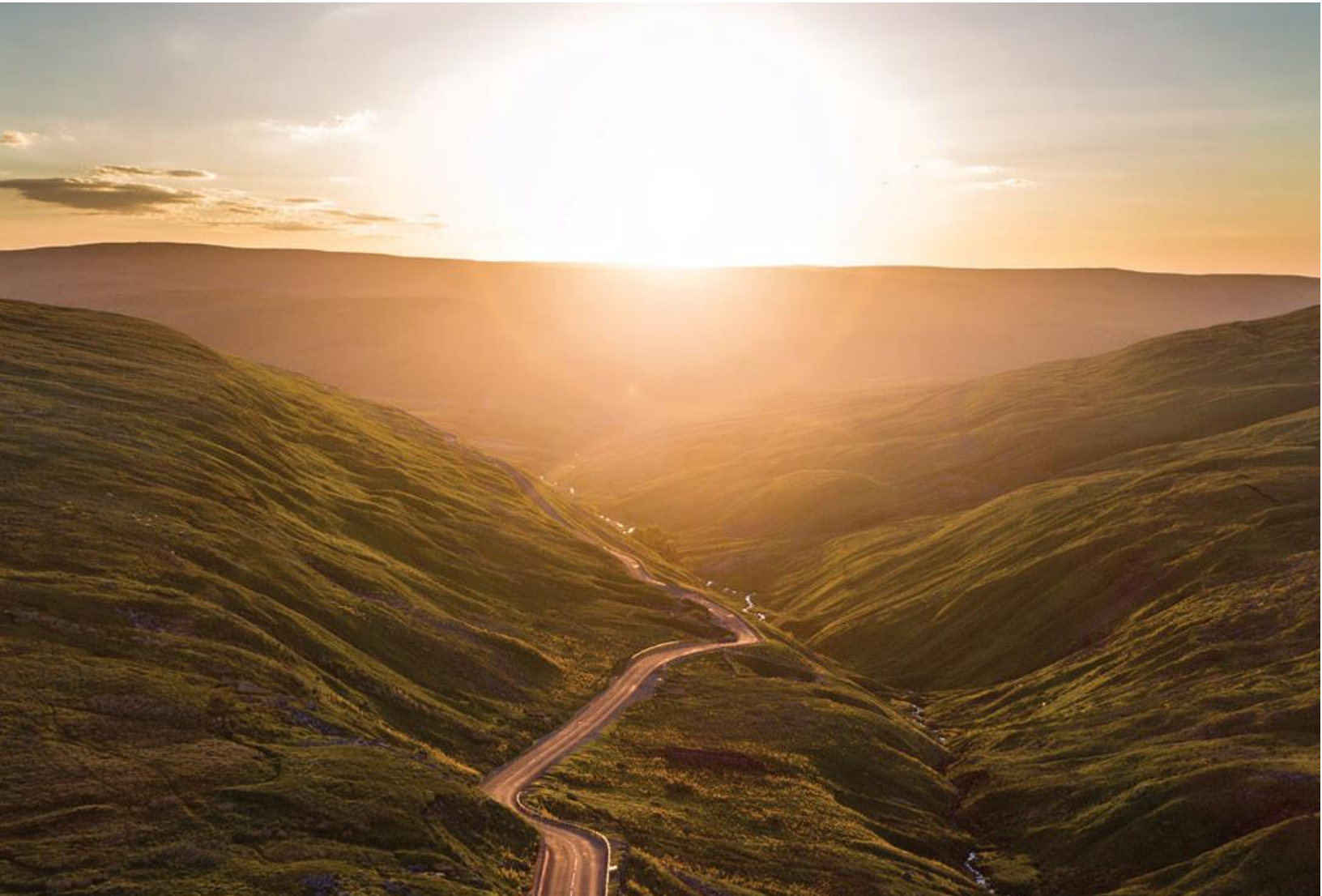
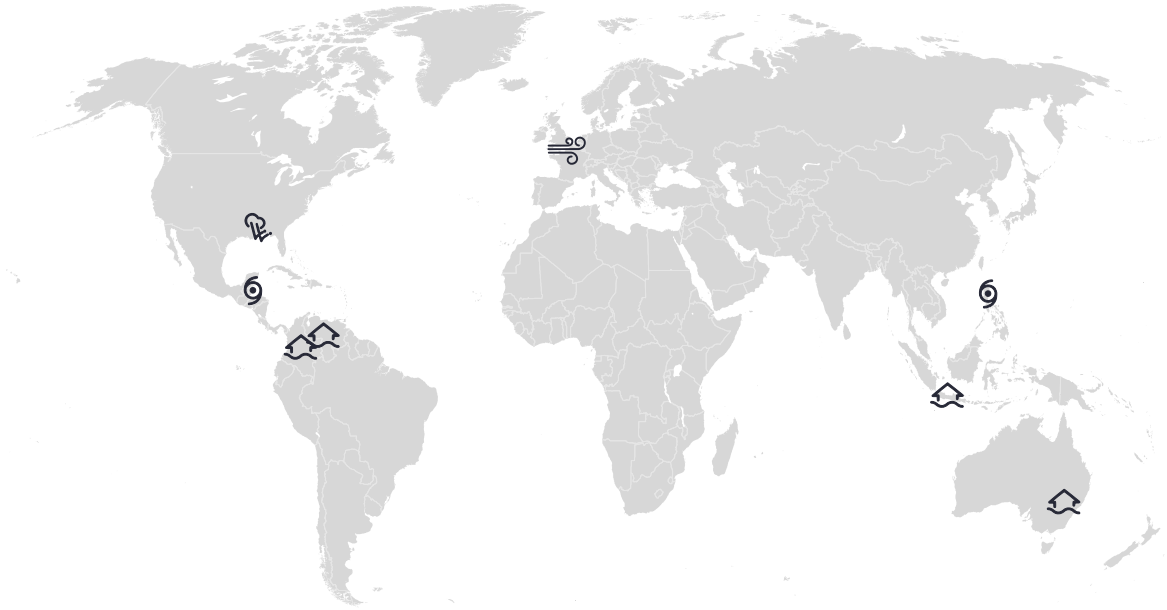


# **Weekly Cat Report**

November 4, 2022



## Executive Summary



Event	Affected Region(s)	Fatalities	Economic Loss (\$)	Page
<b>Typhoon Nalgae</b>	Philippines	150+	10s of millions	3
<b>Severe Convective Storm</b>	United States	0	Millions	6
<b>Hurricane Lisa</b>	Central America	0	Millions	6
<b>Flooding &amp; Landslides</b>	Venezuela	3+	Unknown	6
<b>Flooding &amp; Landslides</b>	Colombia	0	Unknown	6
<b>Windstorm Claudio &amp; Marion</b>	Western Europe	0	Millions	6
<b>Flooding</b>	Australia	0	Unknown	7
<b>Flooding</b>	Indonesia	11	Unknown	7

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.

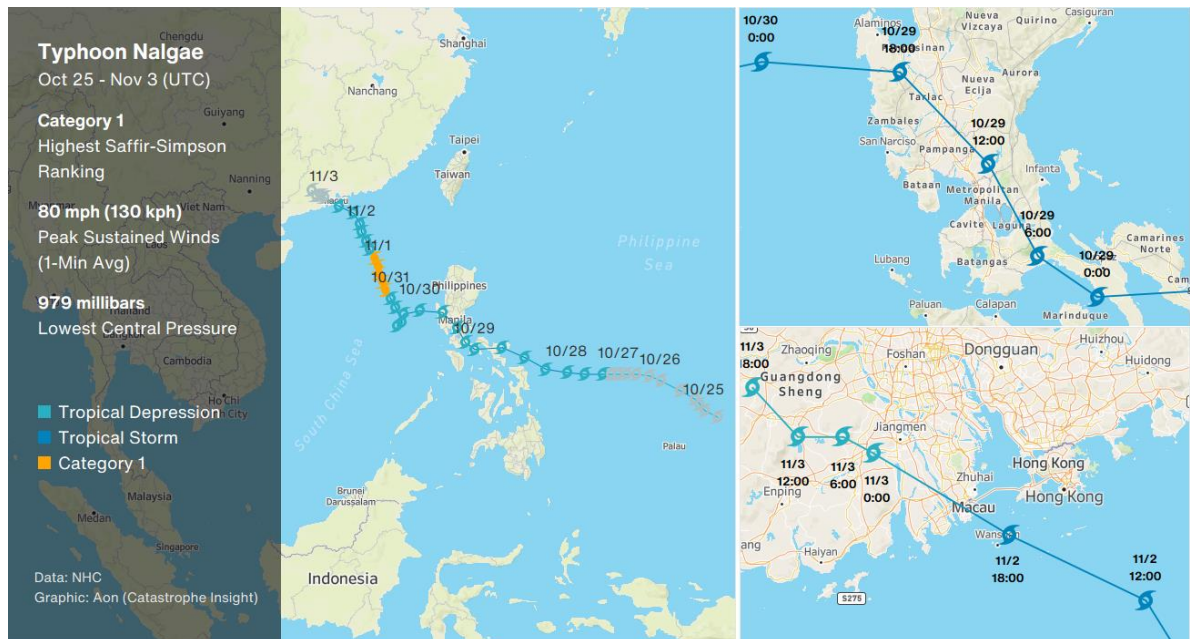
Along with this report, we continue to welcome users to access current and historical natural catastrophe data and event analysis on Impact Forecasting's Catastrophe Insight website: <http://catastropheinsight.aon.com>

## Philippines: Typhoon Nalgae

### Overview

*Nalgae swept through the Philippines over the weekend with torrential rainfall, which resulted in catastrophic flooding and landslides across the country. At least 154 people were likely killed, 128 injured, and 35 others were missing. No fewer than 25,000 homes were damaged or destroyed. Initial assessments by the Philippines' authorities estimated preliminary, partial economic losses at around \$92 million, yet the total impact will likely reach into the hundreds of millions (USD) in the coming days and weeks, as losses continue to evolve.*

### Meteorological Recap



The Joint Typhoon Warning Center (JTWC) began tracking a consolidating low-pressure system early on October 26 in its Tropical Cyclone Formation Alert (TCFA) bulletin. At around the same time, the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) assigned the name “**Paeng**” to the tropical depression that was initially set to pass close to northern Luzon. However, steered by the entrenched subtropical ridge to the north, subsequent forecasts revised the storm track to a more westward path. The Japan Meteorological Agency (JMA) upgraded the system to a tropical storm and gave the international name “**Nalgae**” in the morning of October 27. PAGASA raised Tropical Cyclone Wind Signals to level 3, the third-highest level, in the early hours of Saturday as Nalgae intensified into a severe tropical storm. The storm reached a peak intensity of 100 kph (65 mph) while cutting a deadly path through central Philippines. Nalgae made a total of five landfalls on October 29, first at 1:10 AM local time in Virac, Catanduanes and finally at 1:40 PM local time in Sariaya, Quezon.

The storm began to weaken as it traversed the main landmass of Luzon with rugged terrain to the south. It exited into the West Philippine Sea by the predawn hours of October 30. Following a brief quasi-stationary phase, tropical Storm Nalgae then strengthened into a typhoon in the South China Sea on Monday afternoon. The dry cold surge and strong vertical windshear subsequently weakened the storm prior to its landfall in Zhuhai, China at around 4:50 AM local time on October 3.

## Event Details

Even before Nalgae's first landfall, there were already reports of fatalities. Widespread, convective outer rainbands wrapping around the storm intensified on Friday, bringing flooding to the Visayas and Mindanao archipelagos. Of the **154 fatalities** reported as of November 4, nearly a half came from **Maguindanao**, a province in southern Philippines far from the typhoon path. Most of the fatalities were a result of deadly landslides. Western Visayas (Region VI) including Capiz and Negros Occidental were also badly inundated. Additional 128 people were injured, and 36 persons remain missing. Nearly 4 million people were affected with more than a million people displaced, with roughly 125,000 still housed in evacuation centers as of November 4.



**Flooding and landslides damages in Maguindanao Province**

Source: Philippines' Army

**Material damage** was significant. The National Disaster Risk Reduction and Management Council (NDRRMC) reported 25,100 homes damaged, of which 2,600 were completely destroyed. Nalgae also affected a large number of public and infrastructural facilities, including 110 schools, 500 road sections or 120 bridges. Impacts on the nation's agricultural sector was equally notable, with more than 77,000 ha (190,000 acres) of crops affected. More than 350 municipalities across the country experienced power outages. Although many regions were affected, most of the damage was concentrated in a few provinces and a national state of calamity was eventually not declared.

Full breakdown of damage per region, as published by the NDRRMC as of November 4, is provided in the table below:

Region	Killed	Injured	People Affected	Bridges Affected	Hectares Damaged	Homes Damaged	Homes Destroyed	Total homes
<b>Region 6</b>	33	1	1,384,686	12	18,590	8,817	722	9,539
<b>CALABARZON</b>	33	29	698,133	1	8,597	5,004	410	5,414
<b>Region 5</b>	2	17	251,176	0	21,338	2,388	165	2,553
<b>MIMAROPA</b>	3	5	66,323	0	7,478	2,114	132	2,246
<b>Region 12</b>	4	2	201,856	4	0	1,049	332	1,381
<b>Region 8</b>	5	16	351,831	1	0	710	273	983
<b>Region 10</b>	0	0	6,069	0	0	669	95	764

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<b>CAR</b>	1	6	35,045	0	264	585	24	609
<b>Region 1</b>	0	0	4,178	0	0	420	17	437
<b>Region 3</b>	2	11	305,895	0	21,135	315	58	373
<b>BARMM</b>	63	40	418,753	5	33	125	190	315
<b>Region 9</b>	4	1	79,636	0	196	157	148	305
<b>Region 2</b>	2	0	276,667	71	0	54	28	82
<b>Region 7</b>	2	0	1,699	0	0	39	11	50
<b>CARAGA</b>	0	0	4,817	0	0	17	14	31
<b>Region 11</b>	0	0	352	0	0	24	3	27
<b>NCR</b>	0	0	37,151	0	0	0	0	0
<b>TOTAL</b>	<b>154</b>	<b>128</b>	<b>4,124,267</b>	<b>94</b>	<b>77,629</b>	<b>22,487</b>	<b>2,622</b>	<b>25,109</b>

### Financial Loss

Current assessments of total losses by NDRRMC were placed at minimally ₱5.7 billion (\$97 million), with ₱2.9 billion (\$50 million) from infrastructural damage and ₱2.7 billion (\$47 million) as a result of losses in the agricultural sector. Total Losses were expected to evolve in the coming weeks. Impact on the insurance sector was expected to be largely negligible from the global perspective.

## Natural Catastrophes: In Brief

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### **Severe Convective Storm (United States)**

At least five tornadoes touched down on the U.S. Gulf Coast on October 29. Three EF1 tornadoes hit Mississippi's Jackson County and two weaker tornadoes landed in Alabama. No casualties were reported although few homes and outbuildings in Vancleave and Theodore suffered damages. Light infrastructural damages were also confirmed in other places. Thousands of users east of Mobile Bay experienced power blackouts overnight.

### **Hurricane Lisa (Central America)**

Lisa made landfall between the beach town of Dangriga and Belize City at 4:20 PM CDT with maximum sustained winds of 75 mph (120 kph). Electric posts were toppled, causing blackouts to the Central American nation. Parked airplanes at the Philip Goldson International Airport were also dragged and flipped by strong winds. As many as 50 homes reportedly collapsed, and many more sustained damage. Major flooding was reported across Belize City. As the storm weakened tracking inland, it caused relatively minor damage in Mexico, particularly in Campeche and Quintana Roo states.

### **Flooding & Landslides (Venezuela)**

Flooding and landslides prompted by another round of torrential rainfall affected several states in northern Venezuela over the last week, particularly in La Guaira State and the capital Caracas. Flash flooding and landslide events claimed at least three fatalities, dozens of damaged houses and destroyed roads, and caused power outages across the region.

### **Flooding & Landslides (Colombia)**

Heavy rainfall within active rainy season this year has been affecting several departments in Colombia. Over past week, National Disaster Risk Management (UNGRD) reported notable flooding and landslide events in the capital Bogotá, also in Departments of Antioquia, Atlántico, Bolívar, Boyacá, La Guajira, Magdalena and Tolima, affected no fewer than 15,000 of people and damaged hundreds of houses across the country.

### **Windstorm Claudio & Marion (Western Europe)**

Western Europe was affected by a pair of relatively minor windstorms this week. Claudio, named by Météo-France (Karsta by the FU Berlin), caused windy conditions in the area around the English Channel, particularly in northwestern France and southern England in the night from October 31 to November 1. Despite the French agency declaring this a named event and initially issuing medium warnings, the storm eventually tracked further north and impacts in coastal France were minimal. Additionally, heavy rainfall related to Claudio resulted in localized flooding in southeastern France. Another storm, named Marion by the FU Berlin, primarily impacted Ireland and the United Kingdom, yet eventual impacts were mainly limited to power outages and minor property damage.

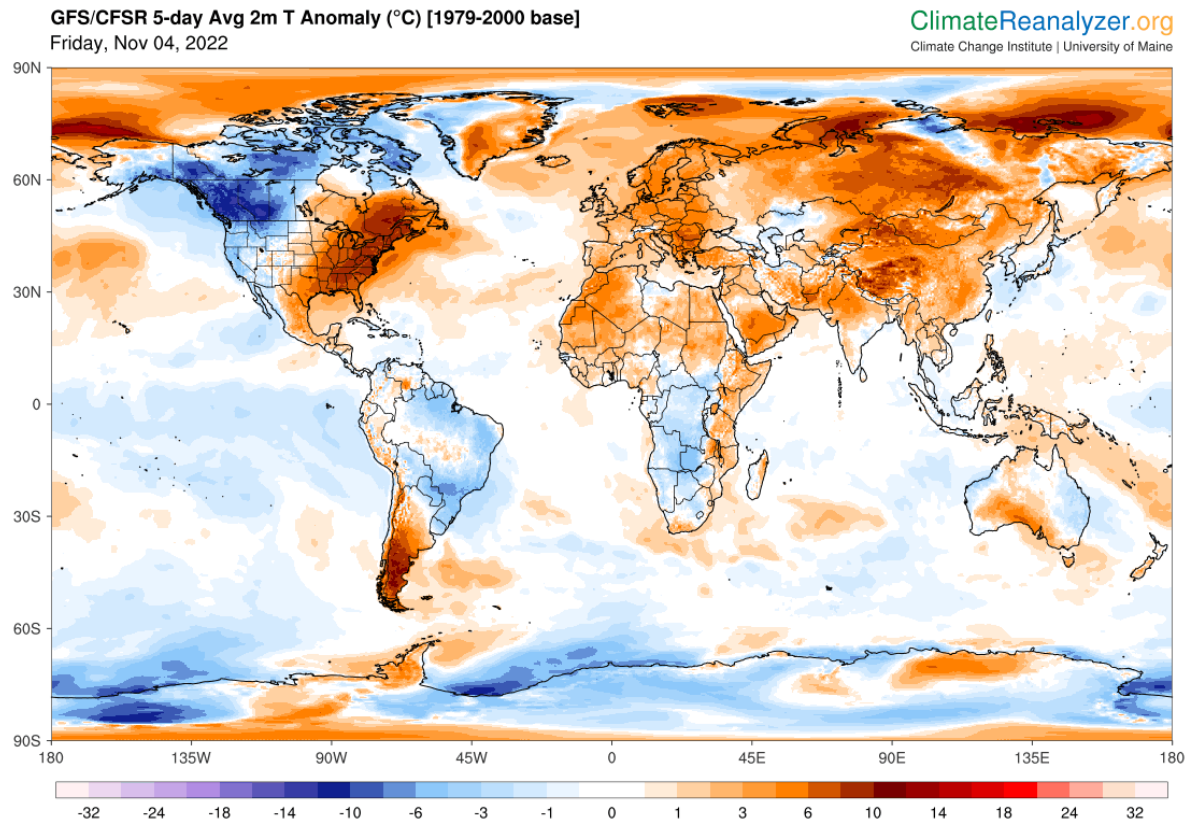
## **Flooding (Australia)**

Significant flooding continued across parts of Australia, with particularly difficult situation observed along rivers of New South Wales. On November 4, potentially record flooding was expected around Forbes, with more than 1,000 evacuated from their homes, as Lachlan River threatened to exceed record crest seen in 1952. Significant flooding was also anticipated along Wagga Wagga and Murray rivers.

## **Flooding (Indonesia)**

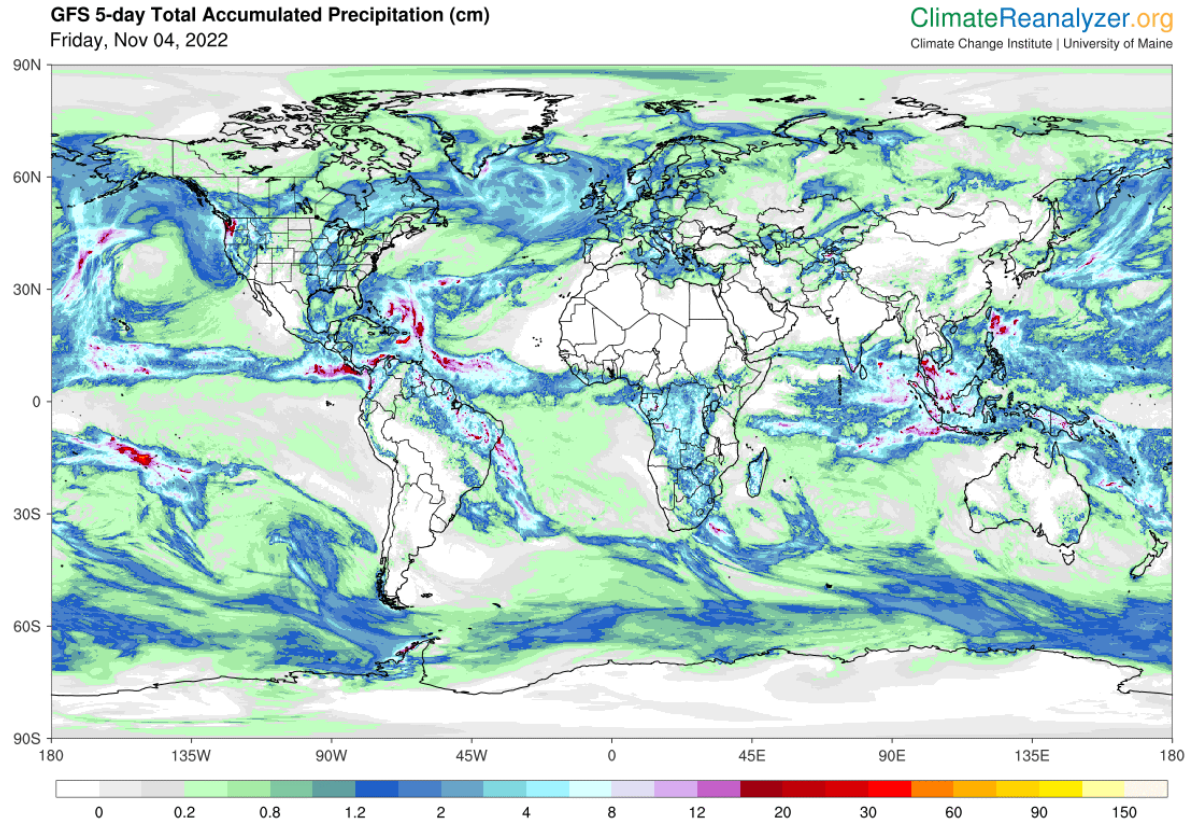
Notable flooding activity has been affecting multiple parts of Indonesia since late October. At least 11 people were killed and thousands of homes were reported to be damaged and inundated by the National Agency for Disaster Countermeasure (BNPB). Among the most affected areas were Central and West Java, Aceh and North Sumatra Provinces in Sumatra, as well as East Nussa Tenggara.

## Global Temperature Anomaly Forecast



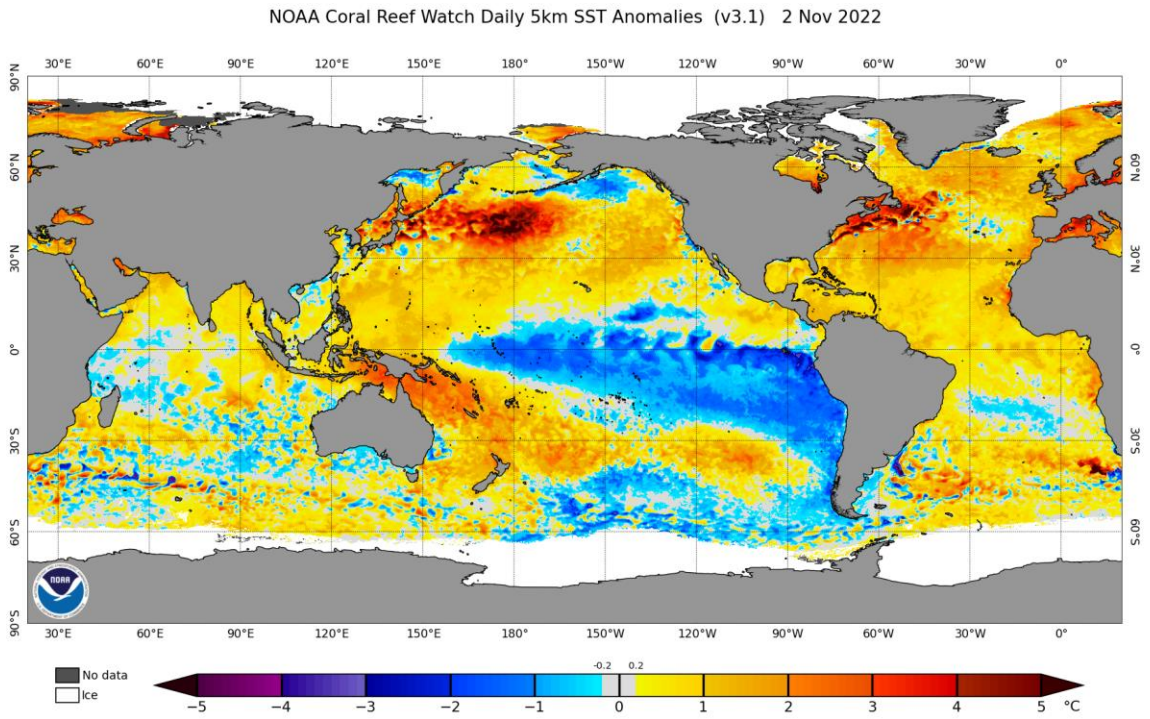


## Global Precipitation Anomaly Forecast

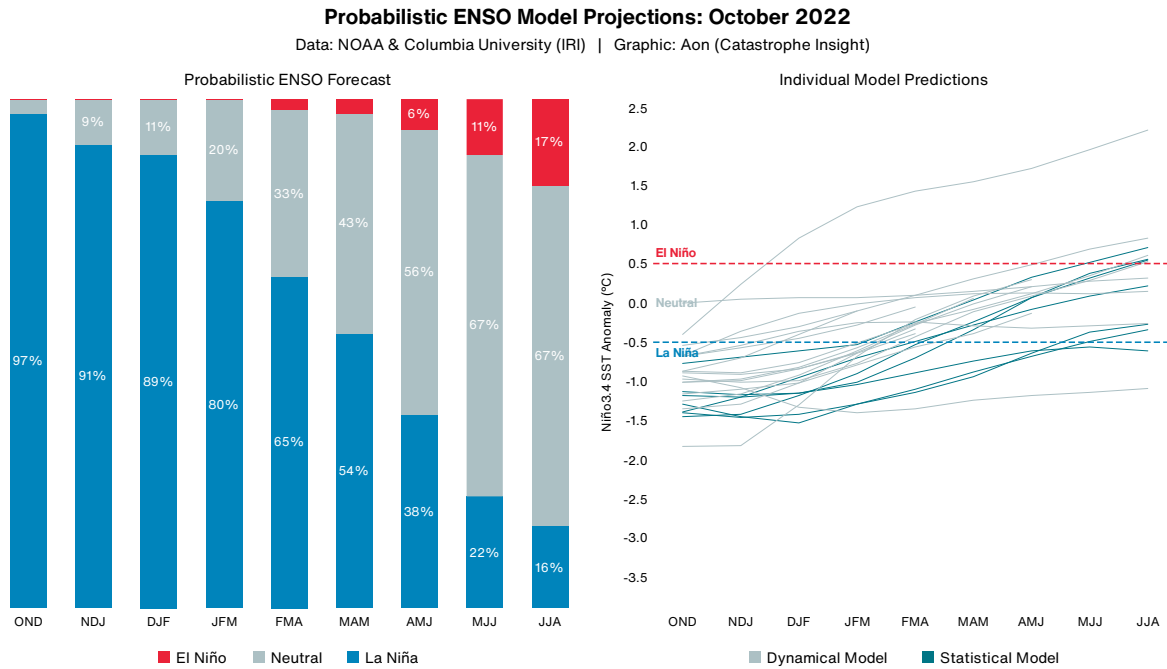


Source: Climate Reanalyzer, Climate Change Institute, University of Maine, USA

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



## El Niño-Southern Oscillation (ENSO)



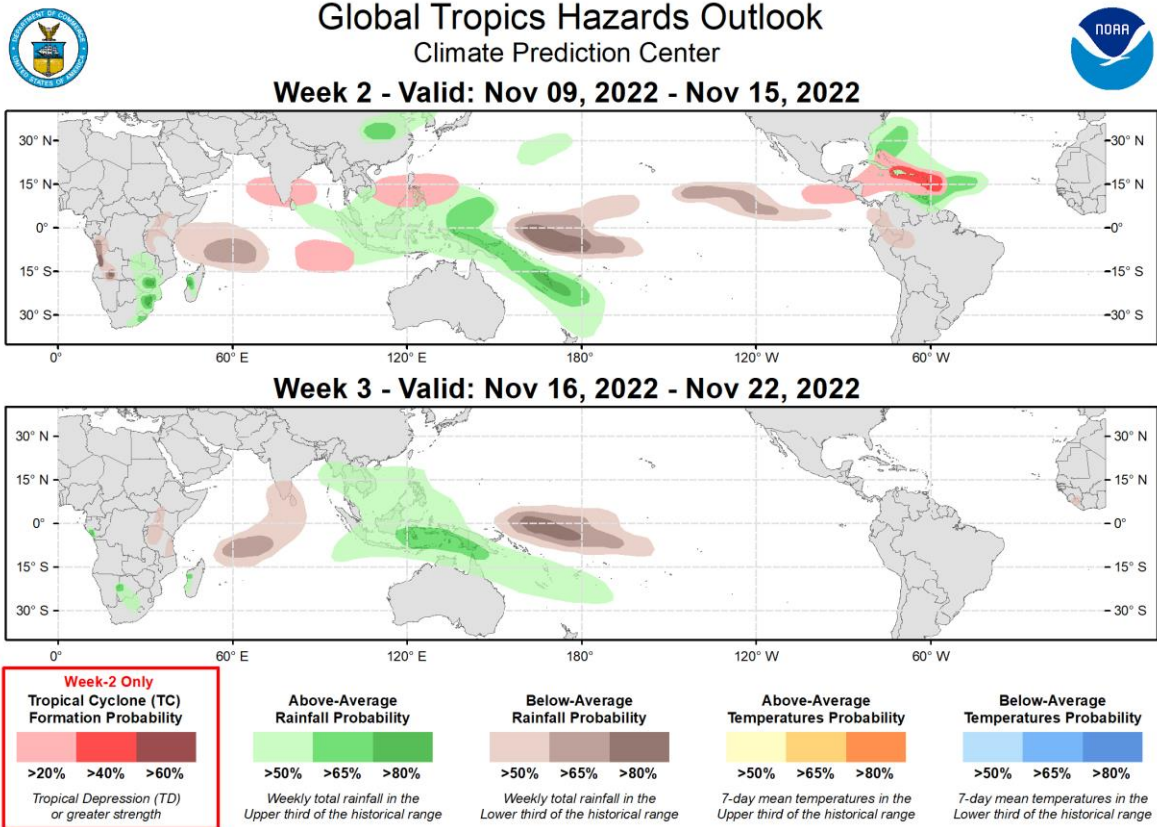
**El Niño:** Warm phase of an ENSO cycle. Sea surface temperatures of +0.5°C occur across the east-central equatorial Pacific.

**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



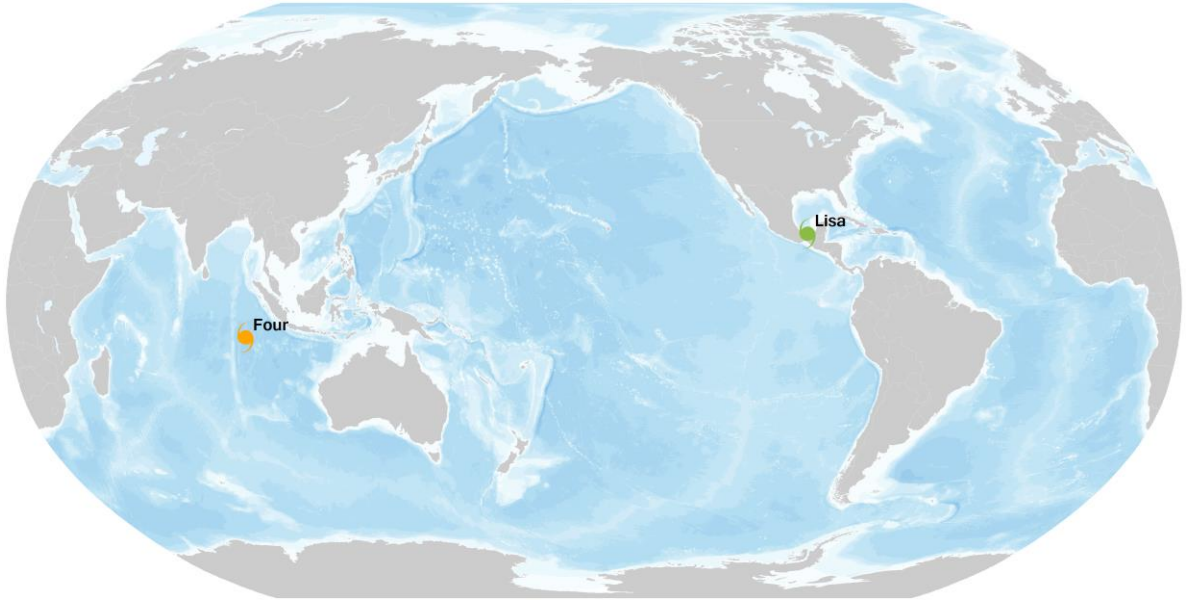
Issued: 11/01/2022

Forecaster: Barandiaran

This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

Source: Climate Prediction Center (NOAA)

## Current Tropical Cyclone Activity



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

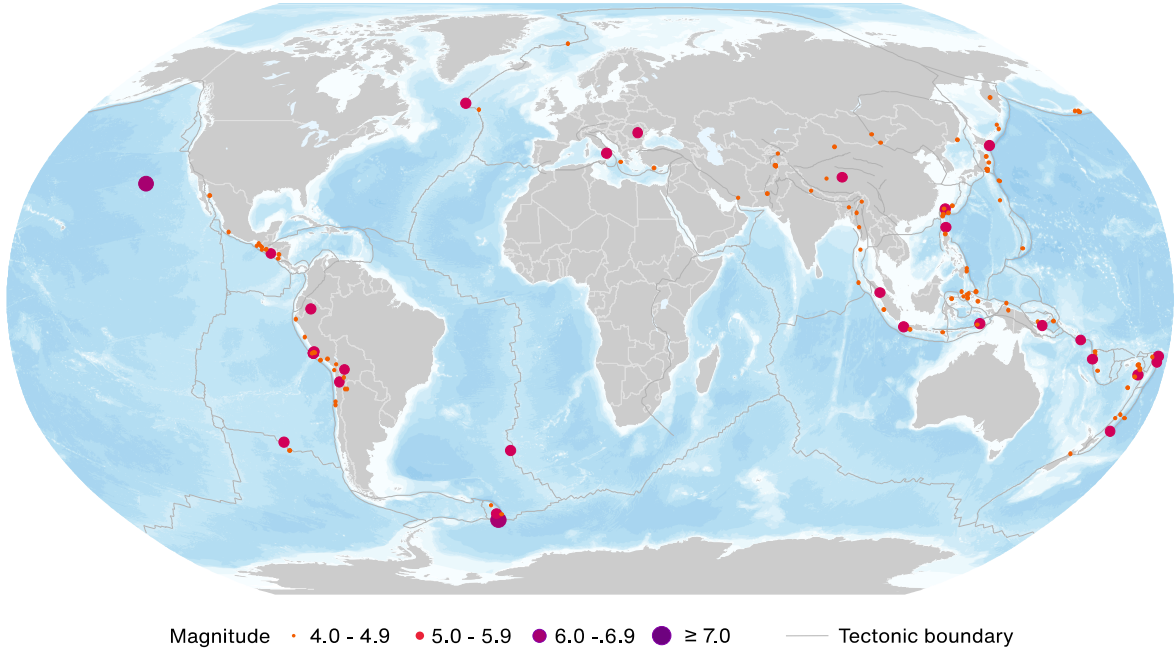
Storm Name	Location	Winds	Location from Nearest Land Area
HU Lisa	18.3N, 93.6W	30	50 miles (80 km) NW from Villahermosa, Mexico
CY Four	9.8S, 92.9E	40	765 miles (1,230 km) SW from Bengkulu, Indonesia

\* 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)

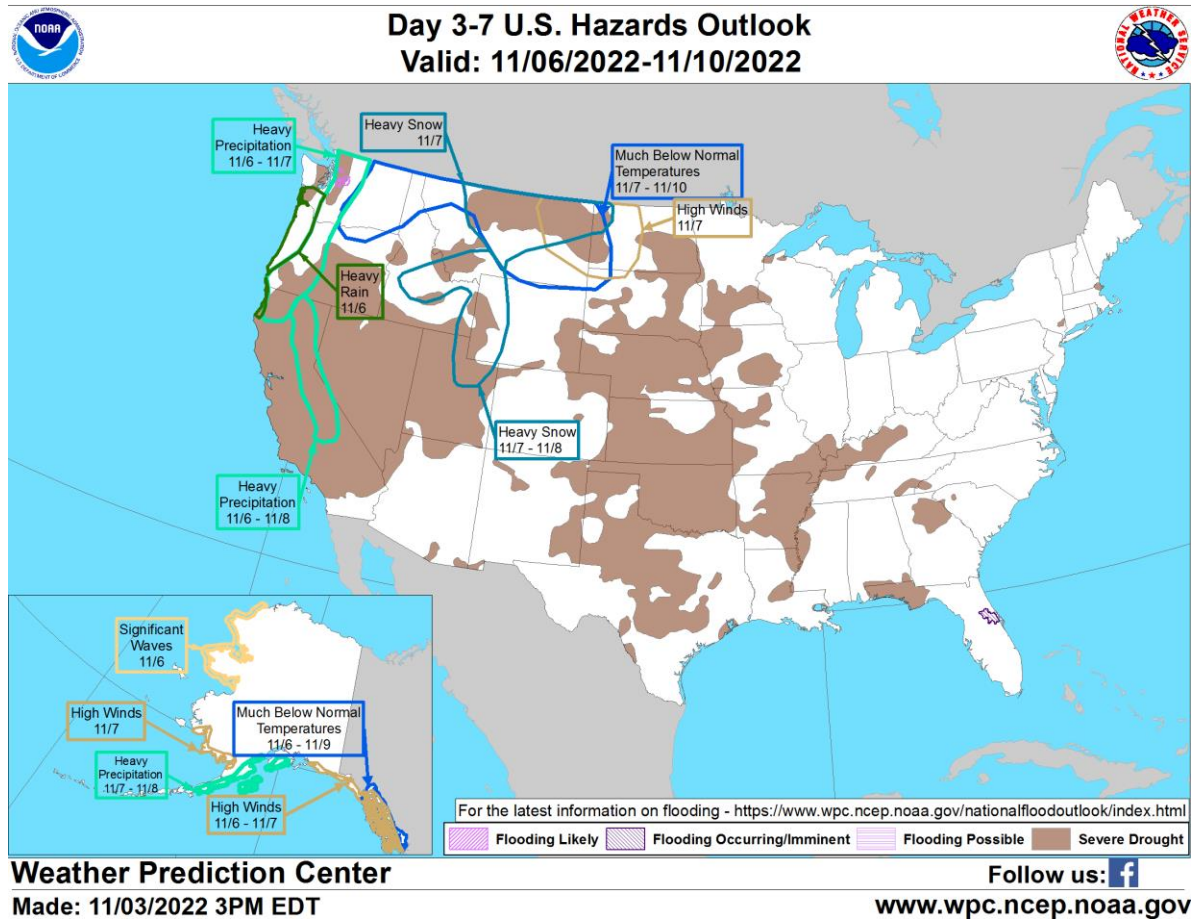
## Global Earthquake Activity ( $\geq M4.0$ ): Oct 28 – Nov 3



Date (UTC)	Location	Magnitude	Epicenter
11/2/2022	31.51N, 133.35W	6	North Pacific Ocean
11/2/2022	60.80S, 25.73W	6.1	South Sandwich Islands region

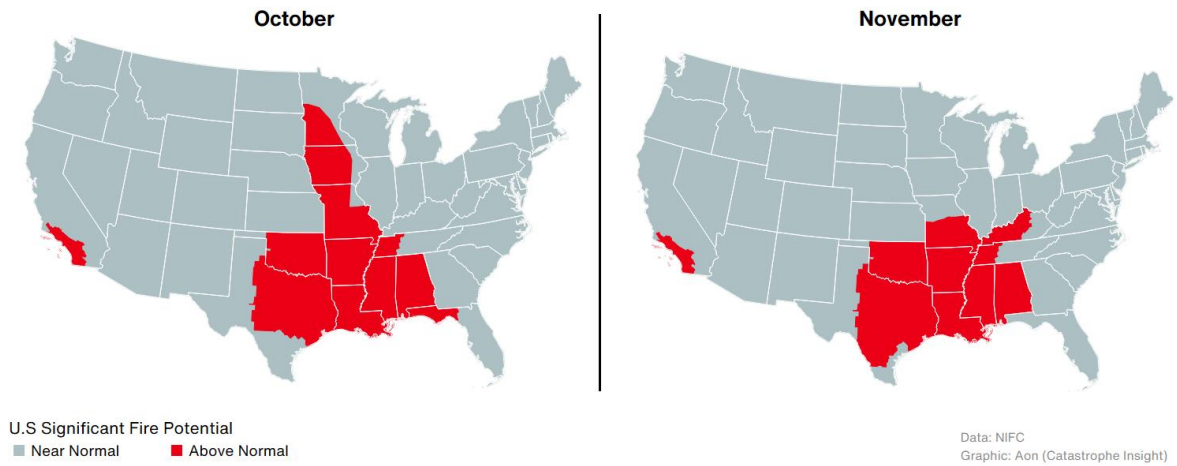
Source: United States Geological Survey

## U.S. Hazard Outlook



Source: Climate Prediction Center (NOAA)

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



### Annual YTD Wildfire Comparison: October 27

Year	Number of Fires	Acres Burned	Acres Burned Per Fire
2018	50,735	8,236,466	162
2019	44,390	4,515,860	102
2020	46,998	8,533,854	182
2021	48,333	6,523,921	135
2022	59,441	7,210,454	121
<b>10-Year Average (2012-2021)</b>	48,193	8,967,296	186

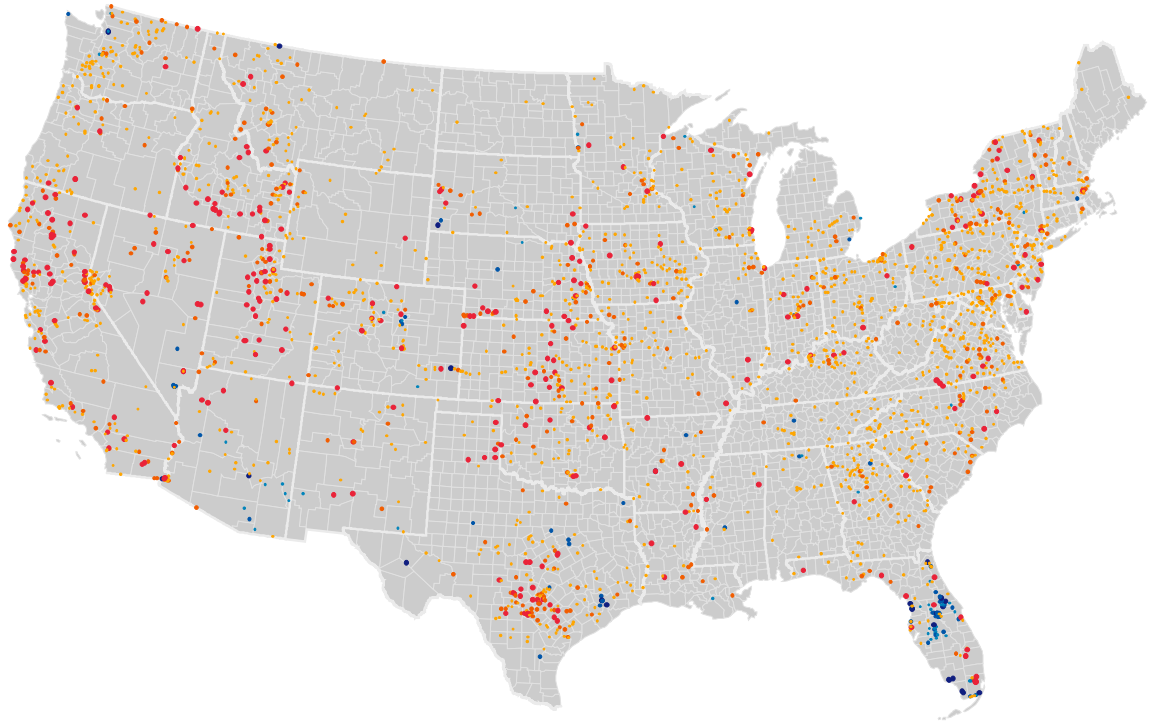
### Top 5 Most Acres Burned by State: October 27

State	Number of Fires	Acres Burned	Acres Burned Per Fire
California	Alaska	595	3,110,976
Arizona	New Mexico	724	858,995
Idaho	Texas	10,742	655,101
Montana	Oregon	1,919	435,924
Oregon	Idaho	1,024	400,433

Source: National Interagency Fire Center



## U.S. Current Riverine Flood Risk



<b>High Flows (Percentile)</b>	• $\geq 99$ / Above floodstage	<b>Hydrological Drought</b>	• Severe Drought
	• 95 - 99		• Moderate Drought
	• 90 - 95		• Below Normal

A  $\geq 99^{\text{th}}$  percentile indicates that estimated streamflow is greater than the 99<sup>th</sup> percentile for all days of the year. This methodology also applies for the other two categories. A stream in a state of severe drought has 7-day average streamflow of less than or equal to the 5<sup>th</sup> percentile for this day of the year. Moderate drought indicates that estimated 7-day streamflow is between the 6<sup>th</sup> and 9<sup>th</sup> percentile for this day of the year and 'below normal' state is between 10<sup>th</sup> and 24<sup>th</sup> percentile.

Source: United States Geological Survey

## Source Information

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### **Philippines: Tropical Storm Nalgae**

Joint Typhoon Warning Center (JTWC)

National Disaster Risk Reduction and Management Council (NDRRMC)

Marcos rejects year-long national state of calamity after Paeng, *Rappler*

### **Natural Catastrophes: In Brief**

At Least 5 Tornadoes Confirmed in Gulf Coast Outbreak, *U.S. News & World Report*

National Hurricane Center

Floods in La Guaira Leave 3 Dead, *Floodlist*

Colombia's Disaster Risk Management (UNGRD)

## Contacts

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