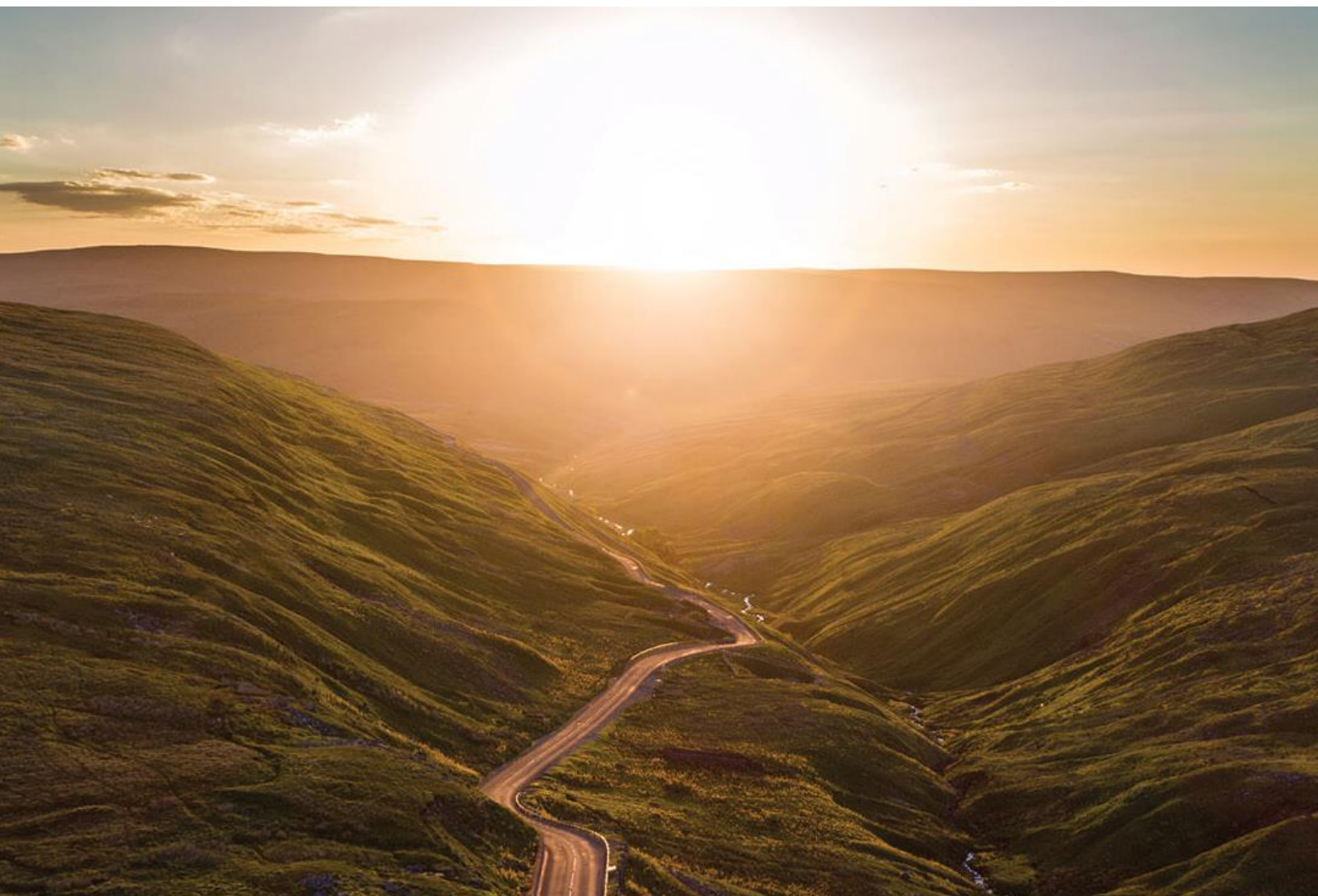
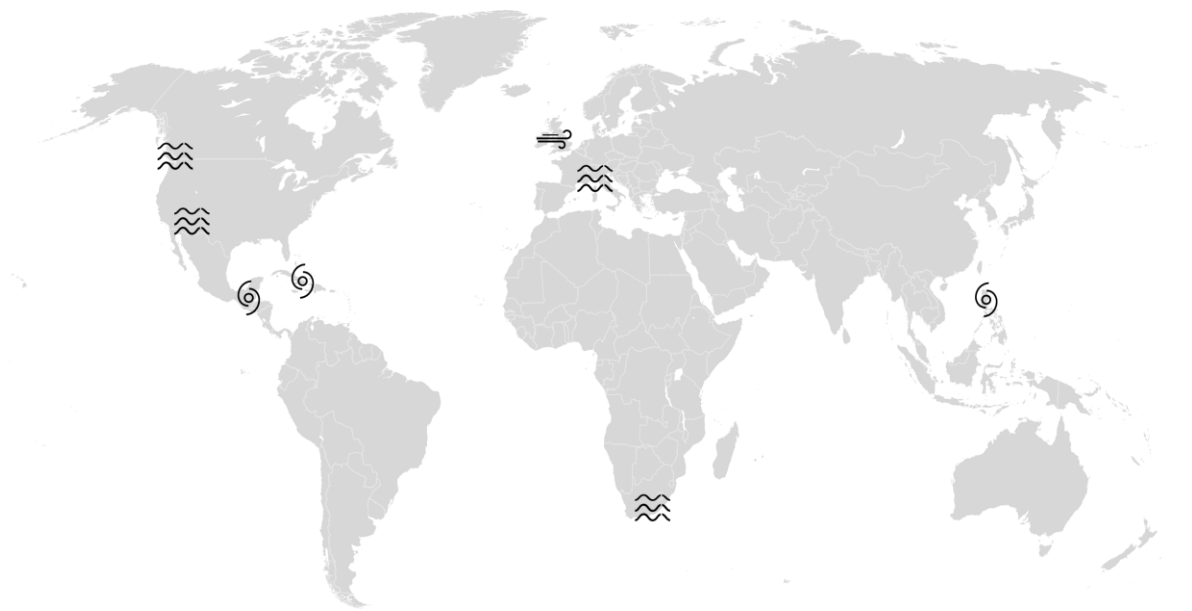


Weekly Cat Report

October 25, 2024



Executive Summary



Event	Affected Region(s)	Fatalities	Economic Loss (\$)	Page
Flooding	United States	2	10s of millions	3
Windstorm Ashley	Northern Europe	0	10s of millions	5
Flooding (Update)	France, Italy	1	100s of millions	7
Flooding & Landslide	Canada	3	10s of millions	9
Hurricane Oscar	Cuba	7	10s of millions	11
Tropical Storm Nadine	Mexico, Belize	3	Unknown	13
Tropical Storm Trami	Philippines	12	Millions	13
Flooding	South Africa	10	Millions	13

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: Flooding

Overview

Persistent storms ahead of a stagnant low-pressure system impacted parts of New Mexico within the southwest United States on October 18-20. The town of Roswell experienced historic rainfall, triggering deadly flash flooding which inundated hundreds of homes, businesses, and roads. At least two people were killed, over 300 more were rescued, and economic losses may reach into the tens of millions USD.

Meteorological Recap

October 2024

New Mexico Flooding

Radar-Estimated
Precipitation

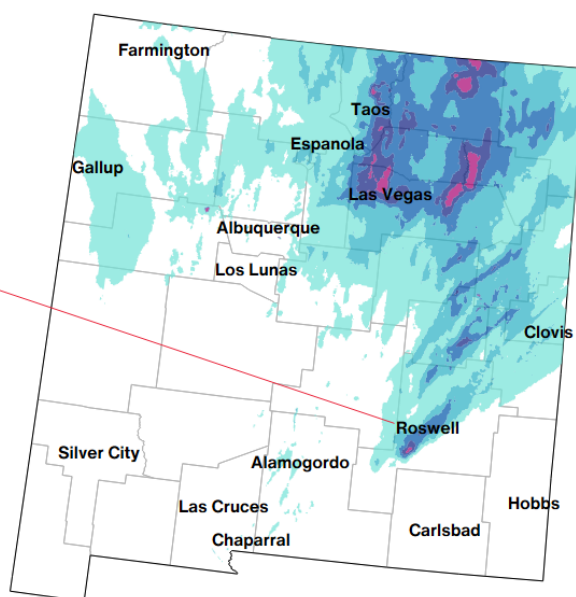
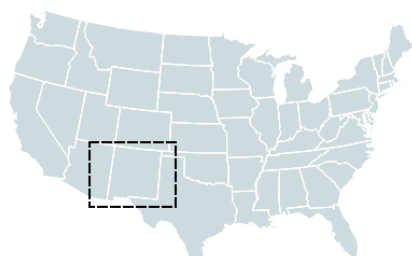
Oct 18-20, 2024
(05z - 05z)

Graphic: Aon's Catastrophe Insight
Data: NOAA

Rainfall
(inch)

- 1-2
- 2-3
- 3-4
- 4-5
- 5+

Storm Total Rainfall:
5.78 in (147 mm)



On October 18-20, a cutoff, low-pressure system stalled out over Arizona and New Mexico. Immediately east of the low, adequate moisture, atmospheric instability, and wind shear led to widespread and persistent thunderstorm development over New Mexico. Many of these storms produced torrential rain, especially across the northern and eastern portions of the state.

Notably, the town of Roswell in Chaves County experienced historic rainfall late on October 19 into the following morning. Despite Roswell normally receiving less than one foot (305 mm) of rain annually, the town recorded 5.78 inches (147 mm) of rain in less than 12 hours. A new, all-time daily rainfall record was set as a result, breaking the previous record of 5.65 inches (143 mm) set back in November 1901, according to the National Weather Service (NWS). The rapid onset of heavy precipitation also prompted the NWS office in Albuquerque to issue a rare flash flood emergency for all of Roswell beginning late on October 19.

Event Details

The extreme rainfall and flash flooding seen in Roswell led to a state of emergency declaration across all of Chaves County. Significant water inundation stalled hundreds of vehicles and temporarily closed all roads in and out of Roswell. Hundreds of homes, businesses, roads, and bridges were damaged as floodwaters reached as high as 6 feet (1.8 meters), leaving behind layers of silt in many areas. At least two people were killed, 38 more were injured, and 309 were rescued.

Financial Loss

At least \$1 million in flooding relief has been issued due to the state of emergency declaration for Chaves County. Despite local officials noting the lack of flood insurance in affected areas, total economic losses may still reach into the tens of millions USD.



Flash flooding in Roswell, New Mexico

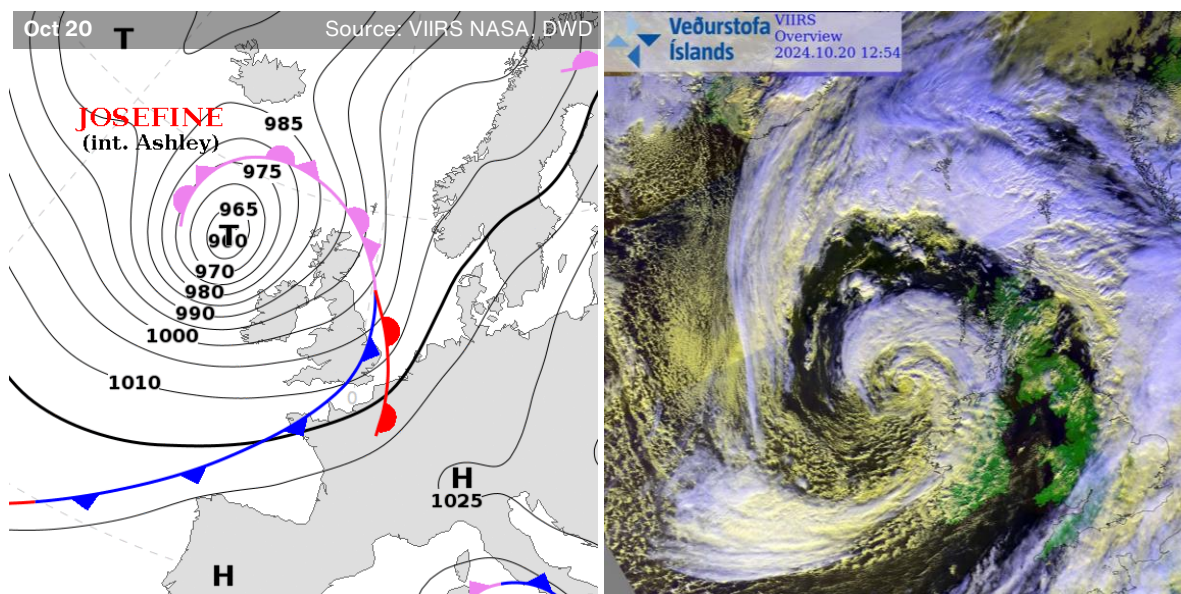
Source: Chaves County Sheriff Office

Northern Europe: Windstorm Ashley

Overview

Windstorm Ashley brought strong winds and localized heavy precipitation to Ireland, northern parts of the United Kingdom, and Norway on October 20-22. Ashley also underwent bomb cyclogenesis after dropping its central pressure down to 950 mb. Inclement weather resulted in disruptions and relatively minor material damage. According to preliminary estimates, aggregated economic and insured losses can reach tens of millions EUR.

Meteorological Recap



Windstorm **Ashley**, named by the Irish Meteorological Service (Met Éireann), became the first storm of the current season jointly named by the Western European group of meteorological offices (UK, Ireland, and the Netherlands). Alternatively, the FU Berlin named it Josefine. On October 19, the system underwent rapid intensification with a 37 hPa (mb) pressure drop within a 24-hour period (*bomb cyclogenesis*) and reached its lowest central pressure of around 950 hPa (mb).

Orange and yellow warnings were issued for parts of Ireland and the UK due to strong winds, high tides, and coastal flooding. An orange wind warning was in effect also in western Norway. The table below highlights the highest wind gusts recorded across Scotland (UK) and Ireland as the storm unfolded.

Location in Scotland	Wind Gust (kph/mpg)	Location in Ireland	Wind Gust (kph/mpg)
Bealach na Bà	177 / 110	Mace Head	137 / 85
Aonach Mor	169 / 105	Belmullet	133 / 83
Cairngorm	166 / 103	Connaught Airport	119 / 74

Event Details

Relatively minor storm impacts were reported in the **Irish counties** of Clare, Kerry, Donegal, Galway, Leitrim, Mayo, Sligo, and **UK's** Scotland. Ashley caused notable transport disruptions, including dozens of canceled flights, and left more than 53,000 customers without power. Numerous flood warnings were in effect across UK's England and Scotland due to heavy precipitation. Minor impacts were also felt in Norway.

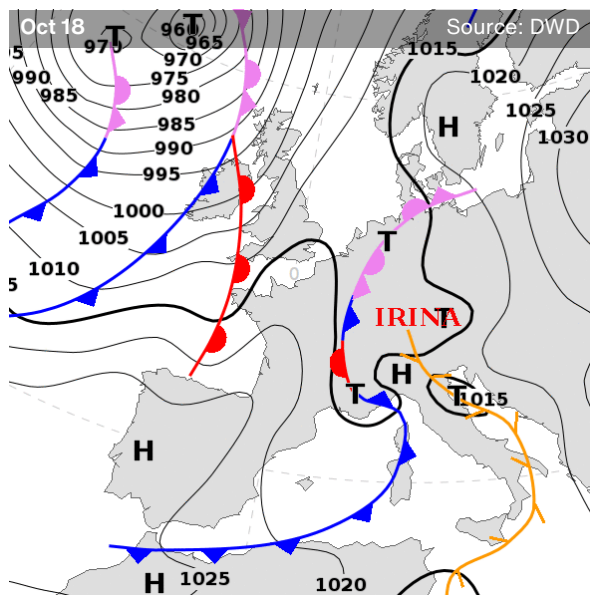
Financial Loss

It is still too early to determine losses related to Windstorm Ashley as damage assessment remains ongoing. Given the extent and localized severity of the events, aggregated losses have the potential to reach at least tens of million EUR.

France, Italy: Flooding (update)

Overview

A major flooding event impacted south-eastern France late last week on October 17-18, and additional flooding continued to impact parts of Italy. The impact on the insurance sector in France has been preliminarily estimated in hundreds of millions EUR. Economic losses in Italy are being assessed, with initial estimates in hundreds of millions.



Meteorological Recap

Southeast and central France is recovering from torrential rain and severe flooding associated with a low-pressure system named **Irina**, which started to affect the country on October 17.

Many locations saw extreme rainfall that resulted in a significant hydrological response. According to the Météo-France, Mayres in the Ardèche department saw an accumulation of **694 mm (27.3 in)** of rain during the event.

As the system moved eastward, it generated heavy rainfall and flooding in Liguria and Tuscany within north-central Italy on October 17.

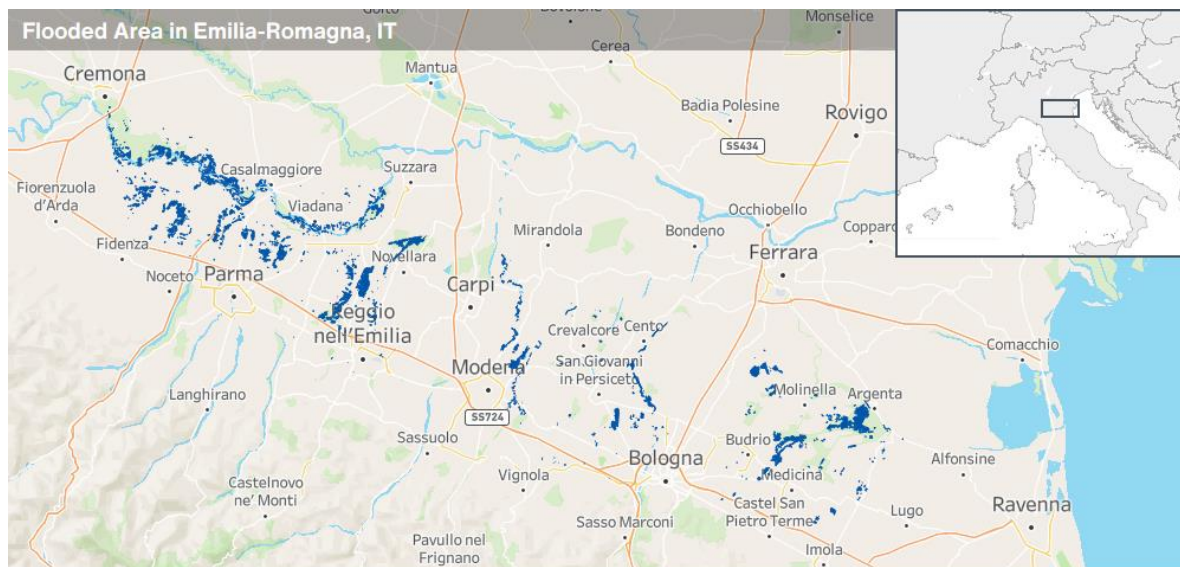
Additional flash flood events associated with the stagnant front occurred between October 19-21, affecting the provinces of Emilia-Romagna, Sicilia, and Calabria in particular.

Event Details

Six French departments were under the highest red alert: Rhône, Loire, Haute-Loire, Lozère, Ardèche, and Alpes-Maritimes. Another 34 departments were under an orange alert due to heavy rainfall and flooding. Civil security reported more than 2,600 flood-related interventions across the affected regions during the event. Severe flooding inundated thousands of residences, prompting evacuations of more than 1,000 people.



Flooding in southeast France. Source: Civil Security of France



Data: Copernicus

Various parts of **Italy** have also been severely impacted by torrential rainfall, debris, flash flooding, and landslides since October 19. Local fire brigades carried out hundreds of interventions, with more than 890 operations in **Emilia-Romagna**. This included 345 interventions in Bologna alone, which was one of the hardest hit cities by this event. One person died in Pianoro municipality due to floods and almost 3,000 people were evacuated, including 2,100 in Bologna alone. According to Copernicus, more than 11,400 hectares (28,200 acres) have been flooded within the province (see map above). Moreover, firefighters intervened more than a hundred times in the Liguria, Tuscany, and Calabria provinces.



Floods and landslides in the Catania (left) and Calabria (right) Provinces. Source: Vigili del Fuoco

Financial Loss

According to a statement released by the Central Reinsurance Fund (CCR), the impact to the French insurance market was expected to be between €340-420 million (\$370-455 million) with around 35,000 claims expected. Additional losses are being assessed in Italy, with preliminary economic damage expected to be in hundreds of millions EUR.

Canada: Flooding & Landslide

Overview

A powerful atmospheric river event brought heavy rainfall and strong winds to southern British Columbia in Canada on October 18-20. Most of the Vancouver metro area received over 100 mm (4 inch) of rainfall, leading to localized flash flooding and mudslides. North and West Vancouver, Langley, and Coquitlam were among the worst impacted as many homes, vehicles, and roads were inundated. Total economic and insured losses may reach into the tens of millions USD.

Meteorological Recap

October 2024
Vancouver Flooding

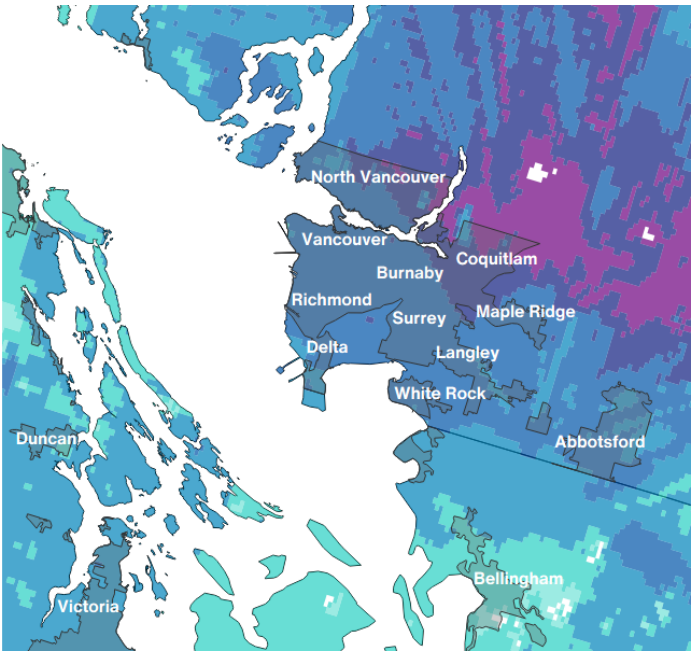
Radar-Estimated
Precipitation

Oct 18-20, 2024
(05z - 05z)

Rainfall
(inch)

- 1-2
- 2-4
- 4-6
- 6-8
- 8-10
- 10+

Graphic: Aon's Catastrophe Insight
Data: NOAA



On October 18-20, a strong atmospheric river brought high volumes of moisture to southern British Columbia in Canada, which generated persistent showers and thunderstorms. While parts of the region experienced strong wind gusts up to 120 kph (75 mph), more significant impacts were felt due to torrential rainfall. In fact, more than 100 mm (4 inch) of rain was recorded across nearly all of the Vancouver metro area during this 3-day period.

According to ECCC, the cities of Coquitlam and West Vancouver recorded the highest storm total rainfall across the Lower Mainland at over 200 mm (7.9 inch). Daily rainfall records were also set at multiple locations such as Vancouver, West Vancouver, White Rock, Langley, and Richmond.

Location	72-hour Rainfall Accumulation (mm/in)
Kennedy Lake	318 / 12.5
Coquitlam	256 / 10.1
Tofino	218 / 8.6
West Vancouver	203 / 8.0
Port Mellon	186 / 7.3

Event Details



Flash flooding in Vancouver Metro Region

Source: District of West Vancouver (left); North Vancouver RCMP (right)

The historic flooding seen across the Vancouver metro area triggered numerous flash flooding and landslide incidents. Multiple evacuation orders and a state of local emergency were issued due to the inclement weather. Areas such as West Vancouver, North Vancouver, and Langley were hit particularly hard as significant flooding and mudslides inundated and damaged many vehicles and roads. Many homes within North and West Vancouver were also flooded, despite recent investments into flood mitigation measures from the local and federal governments. According to local officials, at least three people were killed while one person remains missing.

Financial Loss

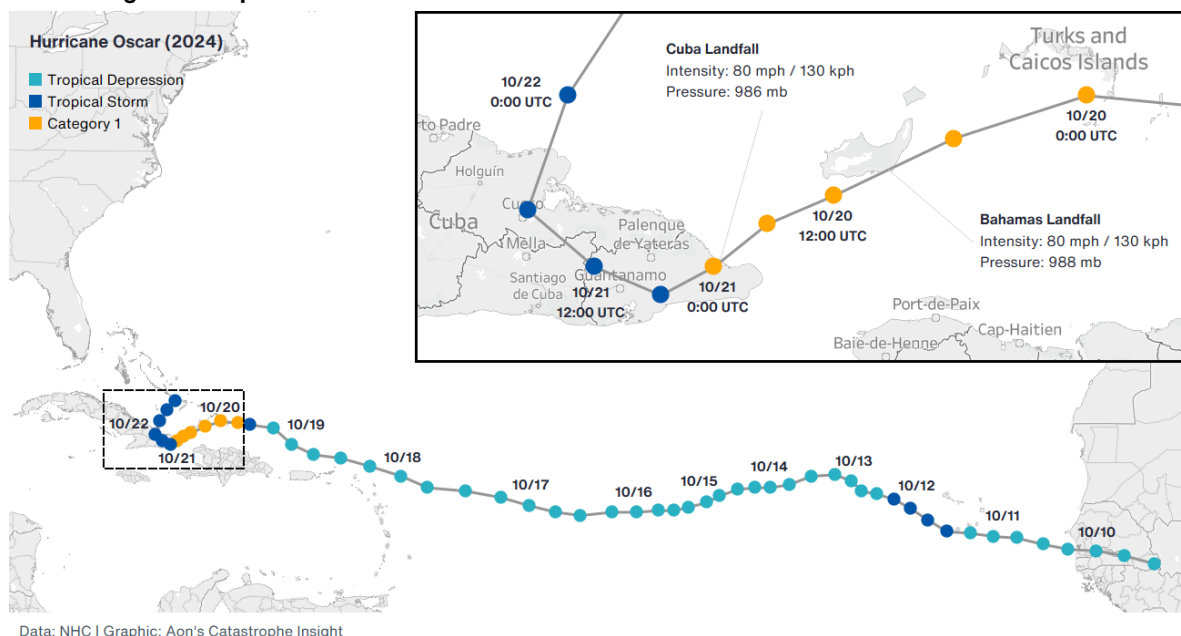
Given the extent of flooding and mudslide damage, this event may drive total economic and insured losses into the tens of millions USD.

Cuba: Hurricane Oscar

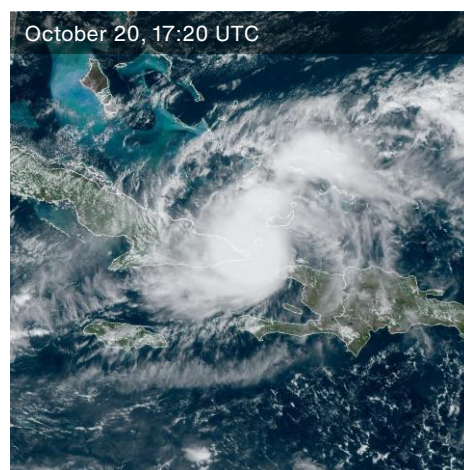
Overview

Oscar, an exceptionally small Atlantic hurricane, unexpectedly strengthened just before making landfall and impacting eastern Cuba on October 19-21. The Guantanamo Province was hit especially hard by heavy rainfall and strong winds, causing flash flooding and landslides. Multiple communities, including Imías and San Antonio del Sur, saw widespread damaged homes and power outages. At least 7 people were killed, and total losses may reach into the tens of millions USD.

Meteorological Recap



Early on October 19, the National Hurricane Center (NHC) began issuing forecast advisories for a long-lived tropical wave from the coast of Africa, now designated as tropical storm Oscar. Initial forecasts from the NHC and regional hurricane models did not favor strengthening due to incoming strong wind shear. However, aircraft reconnaissance during the afternoon of October 19 found Oscar was much stronger than previously estimated as the storm's maximum sustained winds jumped from 40 mph (65 kph) to 70 mph (115 kph) in 3 hours. Notably, Oscar's small size also made the storm prone to rapid intensity fluctuations. In fact, according to the NHC, hurricane-force and tropical-storm-force winds only extended up to 10 miles (20 km) and 45 miles (75 km), respectively, away from the center of the storm.



Later on October 19, Oscar peaked as a category 1 hurricane with winds up to 85 mph (135 kph). The following day, the storm maintained a similar intensity as it made two landfalls. Oscar made its first landfall near Great Inagua Island within the Bahamas around 5:00 am EDT (09:00 UTC). Roughly 13 hours later, the storm made another landfall around 5:50 EDT (21:50 UTC) near the town of Baracoa in eastern Cuba. As Oscar moved through eastern Cuba, strong winds and rainfall up to 10 inches (255 mm) affected much of the Guantanamo Province. By late October 22, Oscar reemerged over the Atlantic Ocean before dissipating and being absorbed by a separate low-pressure system.

Event Details



Hurricane damage in Guantanamo Province, Cuba

Source: IFRC Americas

Heavy rainfall and subsequent flash flooding and landslides caused notable impacts across Cuba's Guantanamo Province, leading to at least seven fatalities, nearly 500 rescues, and evacuation orders for another 15,000. Significant flash and river flooding, along with numerous mudslides, heavily damaged roads, leaving some communities temporarily inaccessible. More severe damage occurred within the Imías, San Antonio del Sur, Baracoa, and Maisí municipalities, prompting a state of emergency declaration. At least 2,282 homes have been damaged, with more than 1,000 homes experiencing total roof collapses, according to preliminary damage assessments. Severe impacts to local agriculture has also been reported, including extensive damage to local coffee and banana crops. More flooding and wind impacts were seen across numerous salt industrial facilities and roughly 17,000 hectares (42,000 acres) of other various crops.

Notably, widespread downed trees and powerlines led to power outages across areas affected by Hurricane Oscar. This comes on the heels of an extensive, nationwide power outage in Cuba which occurred just days before Oscar's landfall.

Financial Loss

While damage assessments are ongoing in eastern Cuba, wind and rain impacts seen thus far may drive total economic and insured losses into the tens of millions USD, possibly higher.

Natural Catastrophes: In Brief

Tropical Storm Nadine (Mexico, Belize)

Within four short days, a tropical disturbance over the western Caribbean slowly strengthened into tropical storm Nadine on October 15-19. The system eventually made landfall early on October 19 near Belize City as a tropical storm before moving into southern Mexico. Parts of Belize and Mexico were flooded, with Mexico's Chiapas, Veracruz, and Tabasco states notably impacted. In Chiapas, at least 3 people have been killed while floodwaters have damaged nearly 1,300 homes across 20 municipalities. Notably, Nadine's remnants eventually merged with another low-pressure system, becoming Hurricane Kristy which continues to spin over the open Pacific Ocean as a category 5 hurricane.

Tropical Storm Trami (Philippines)

Tropical Storm Trami, named Kristine in the Philippines, crossed Luzon Island, northern Philippines, on October 23-24, causing material damage and human losses. As of October 24, local disaster authorities (NDRRMC) reported more than 2.3 million affected people, particularly in the Bicol, Western Visayas and Eastern Visayas regions. At least 12 people died, several others were injured (4) or are still missing (7). The storm caused notable losses to local infrastructure, agriculture and more than 1,300 houses. Trami is expected to approach southern China and central Vietnam as a tropical storm in the following days.

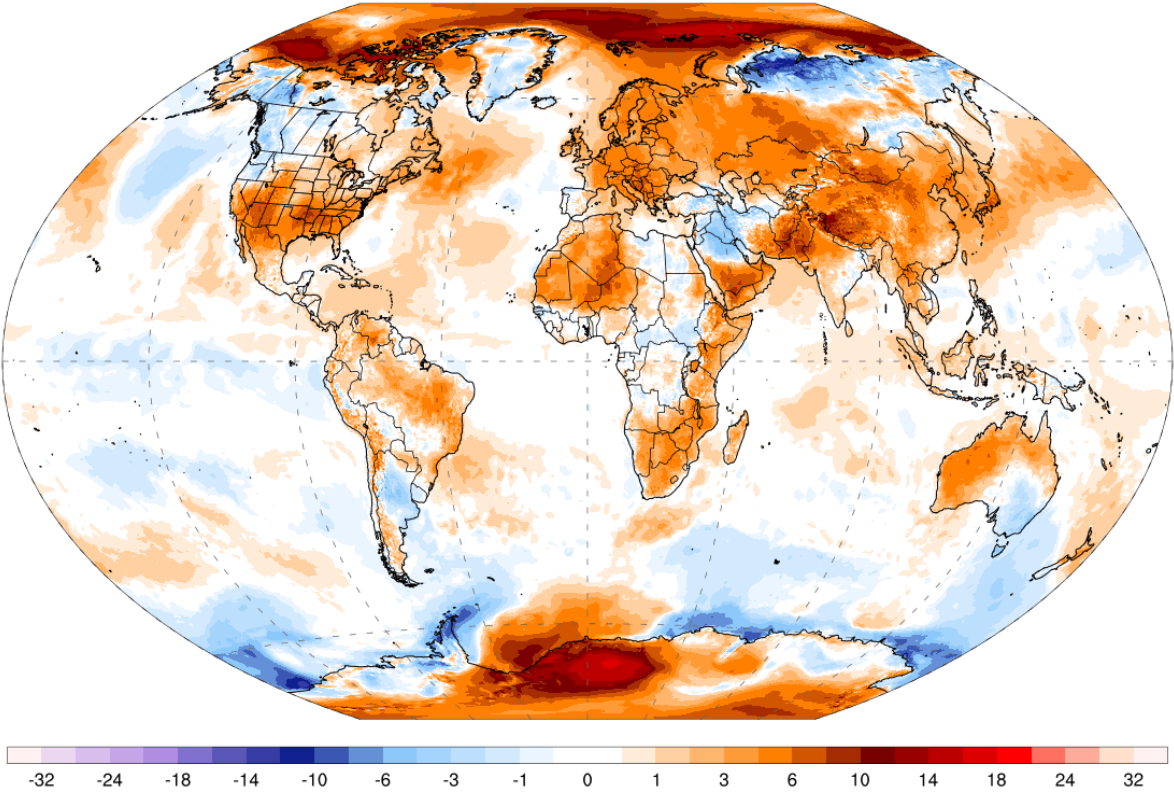
Flooding (South Africa)

South Africa's Eastern Cape Province has experienced heavy rainfall since October 21. Consequent floods claimed at least 10 lives and prompted evacuations of more than 3,000 people. Moreover, about 30 houses and dozens of bridges have been destroyed or damaged.

Global Temperature Anomaly Forecast

GFS 2m T Anomaly (°C) [CFSR 1979-2000 baseline]
Days 1-3 Avg | Thu, Oct 24, 2024

ClimateReanalyzer.org
Climate Change Institute | University of Maine

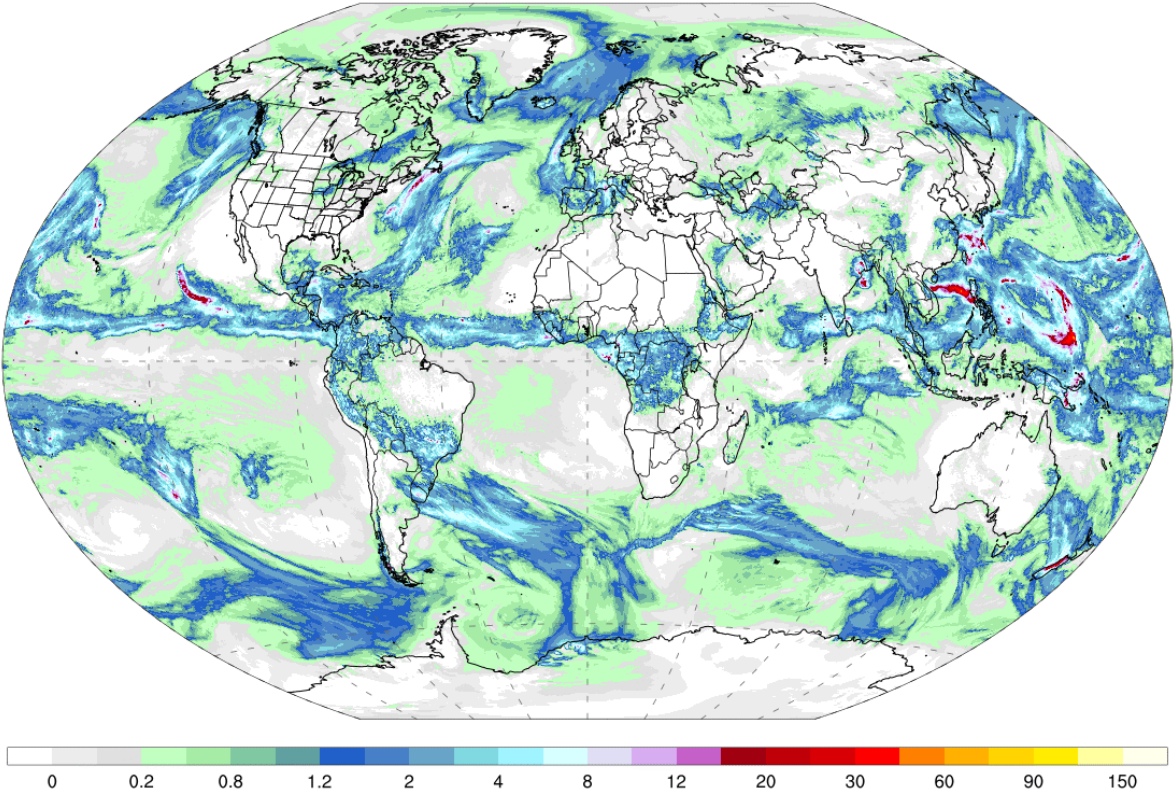


Source: Climate Reanalyzer, Climate Change Institute, University of Maine, USA

Global Precipitation Forecast

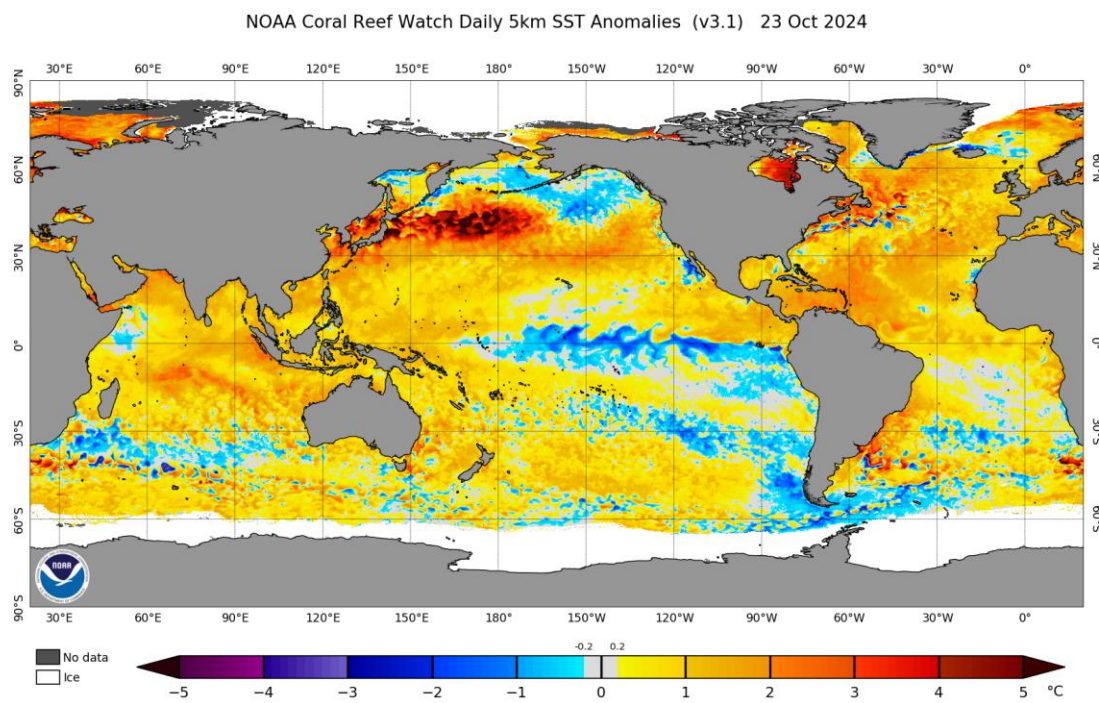
GFS Accumulated Precipitation (cm)
Days 1-3 Total | Thu, Oct 24, 2024

ClimateReanalyzer.org
Climate Change Institute | University of Maine

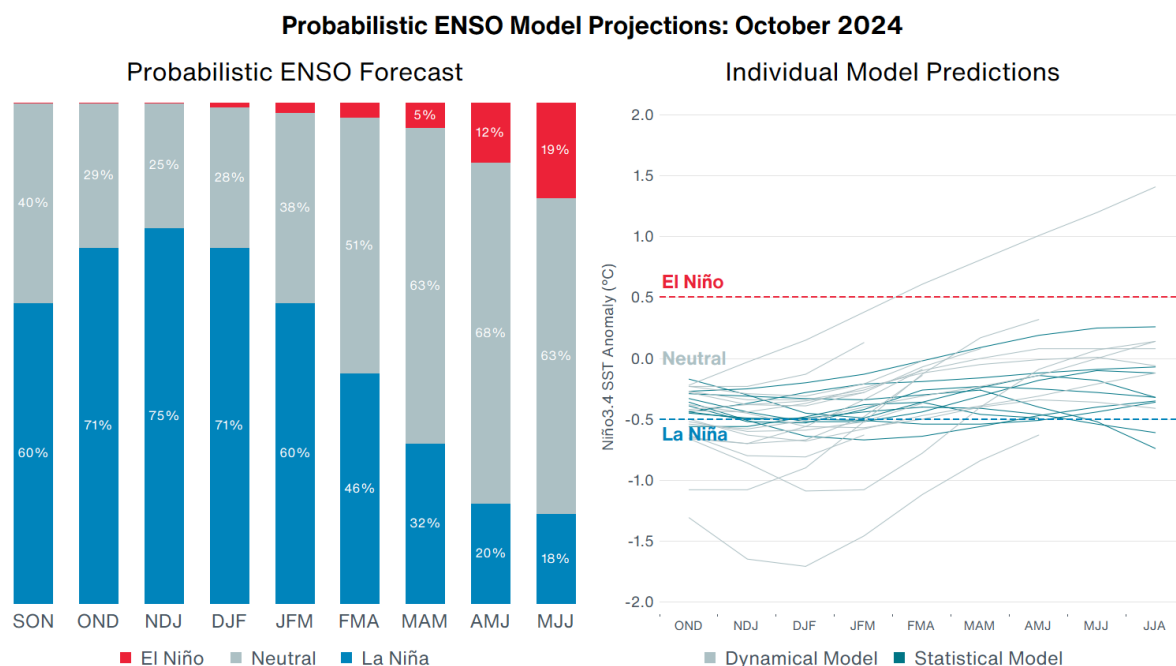


Source: Climate Reanalyzer, Climate Change Institute, University of Maine, USA

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



El Niño-Southern Oscillation (ENSO)



El Niño: Warm phase of an ENSO cycle. Sea surface temperatures of $+0.5^{\circ}\text{C}$ occur across the east-central equatorial Pacific.

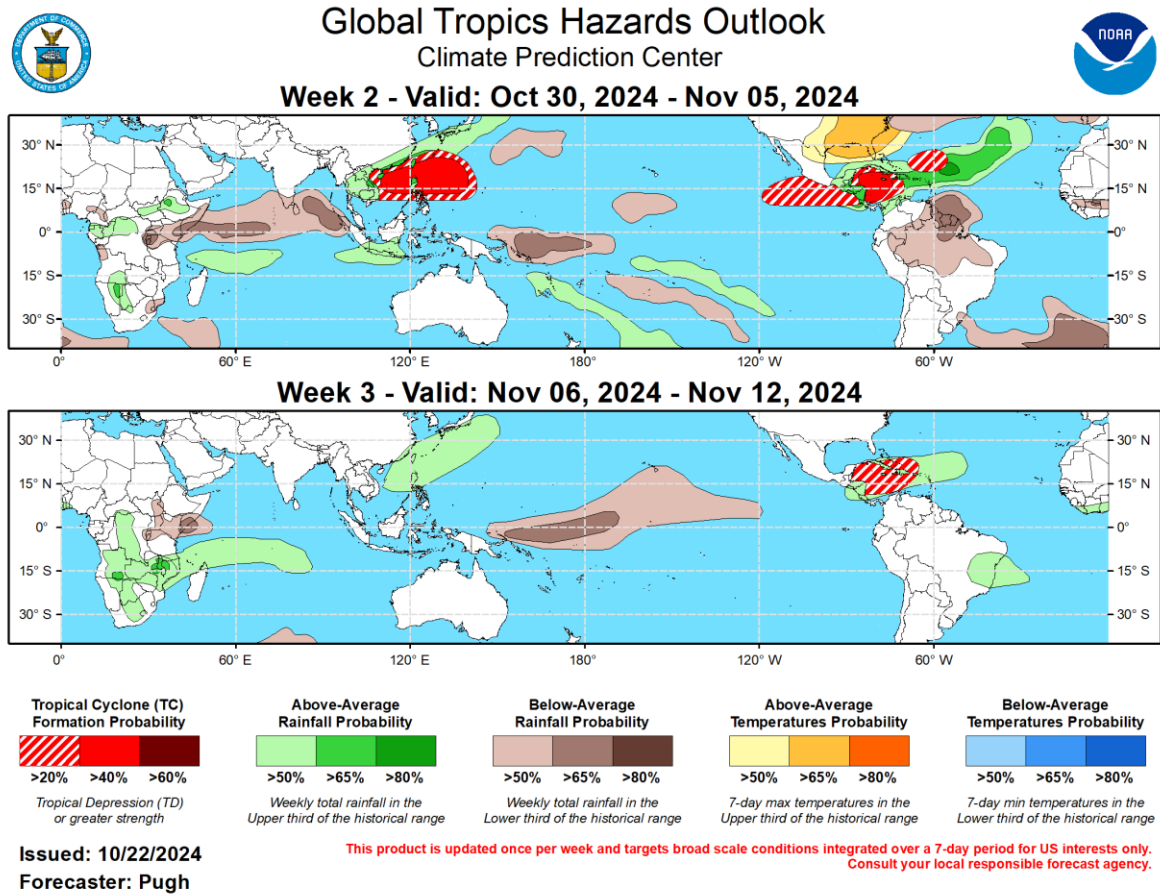
La Niña: Cool phase of an ENSO cycle. Sea surface temperatures of -0.5°C occur across the east-central equatorial Pacific.

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 $+0.5^{\circ}\text{C}$ (-0.5°C). This is known as the Oceanic Niño Index (ONI).

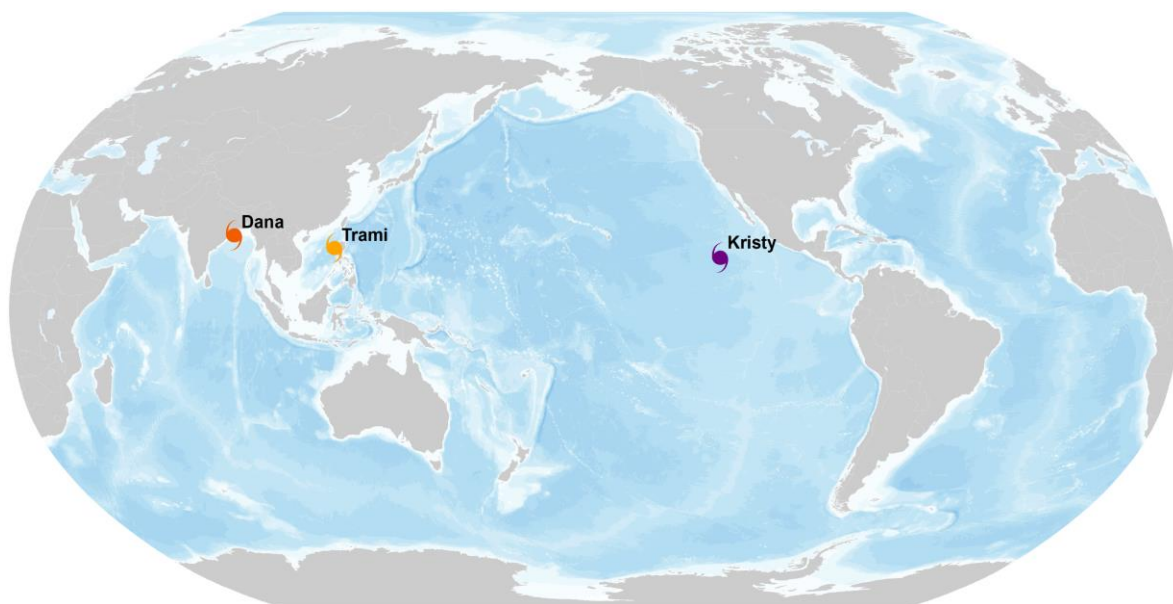
Source: NOAA, Columbia University | Graphic: Aon Catastrophe Insight

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

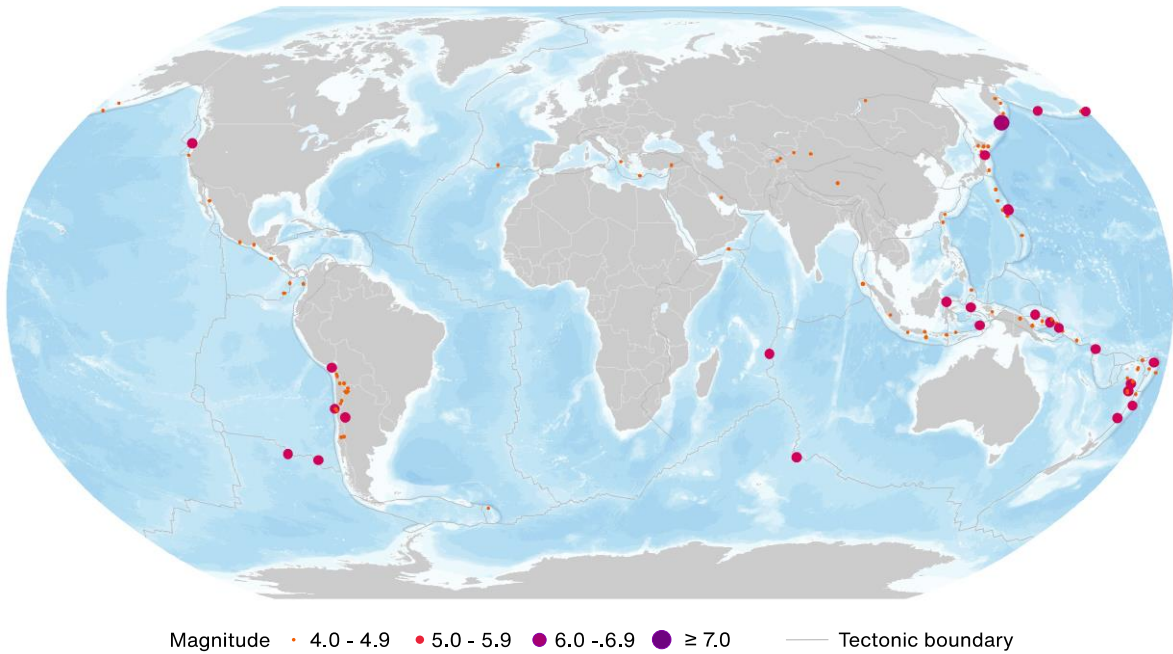
Name	Location	Winds	Center
HU Kristy	14.1N, 121.0W	160	980 mi (1580 km) SW from La Paz, Mexico
TY Trami	16.7N, 119.0E	50	105 mi (170 km) W from Baguio City, Philippines
CY Dana	20.2N, 87.2E	75	90 mi (145 km) E from Bhubaneshwar, India

* 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)

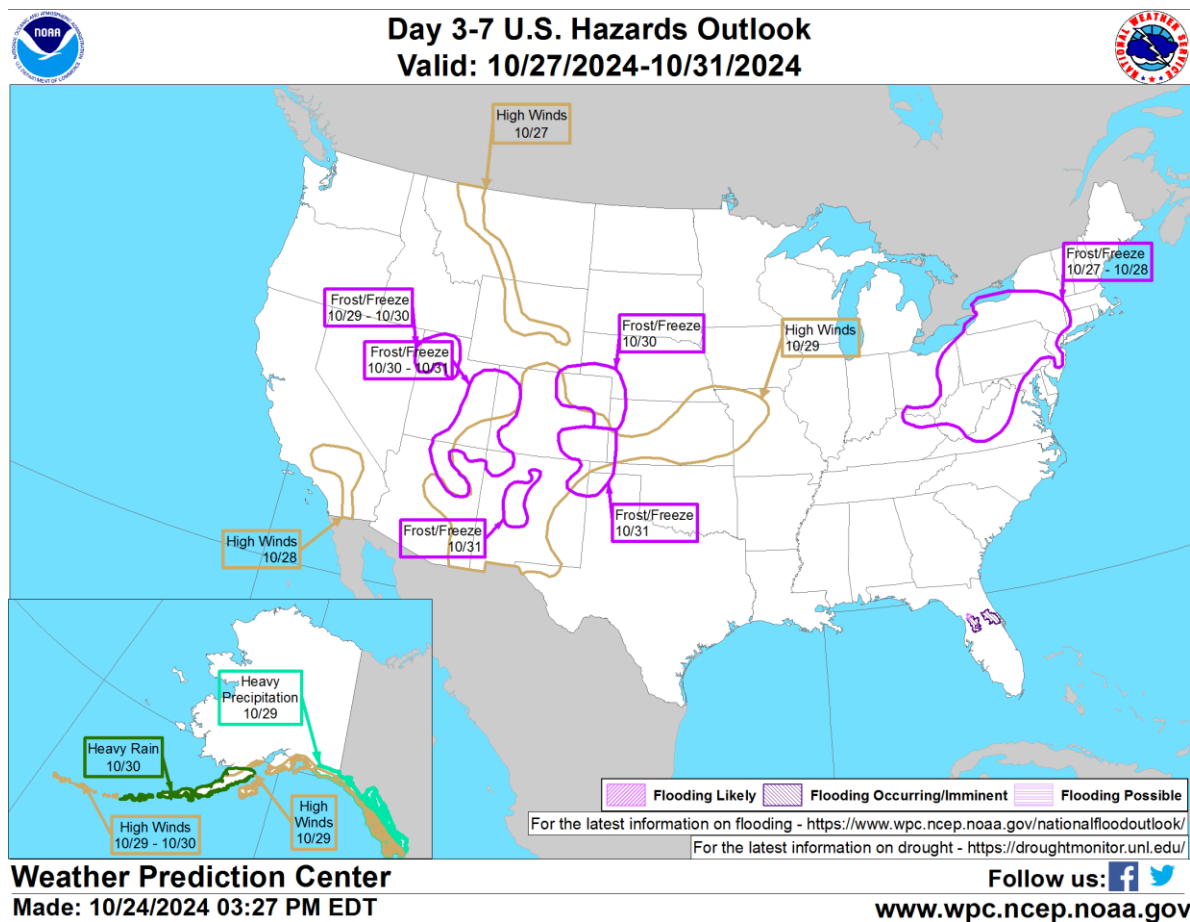
Global Earthquake Activity ($\geq M4.0$): October 18-24



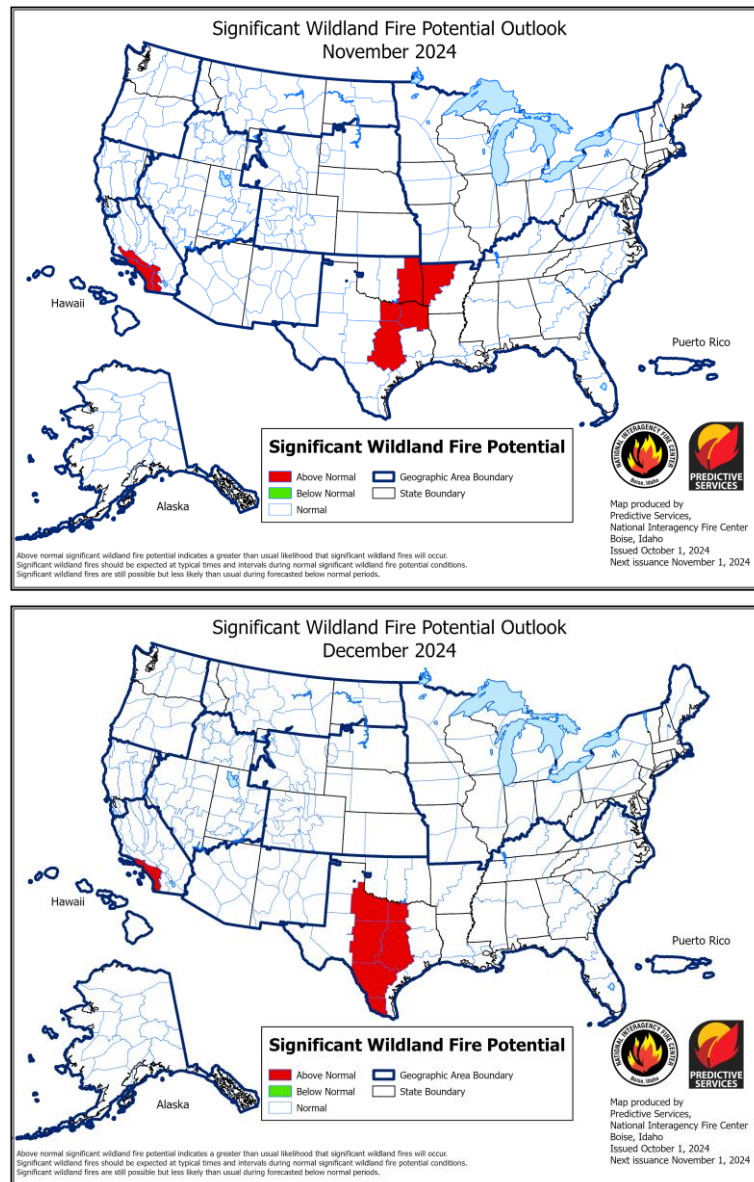
Date (UTC)	Location	Magnitude	Epicenter
10/23/2024	49.40N, 155.70E	6.2	14 km (9 mi) SSW of Severo-Kurilsk, Russia

Source: United States Geological Survey

U.S. Hazard Outlook

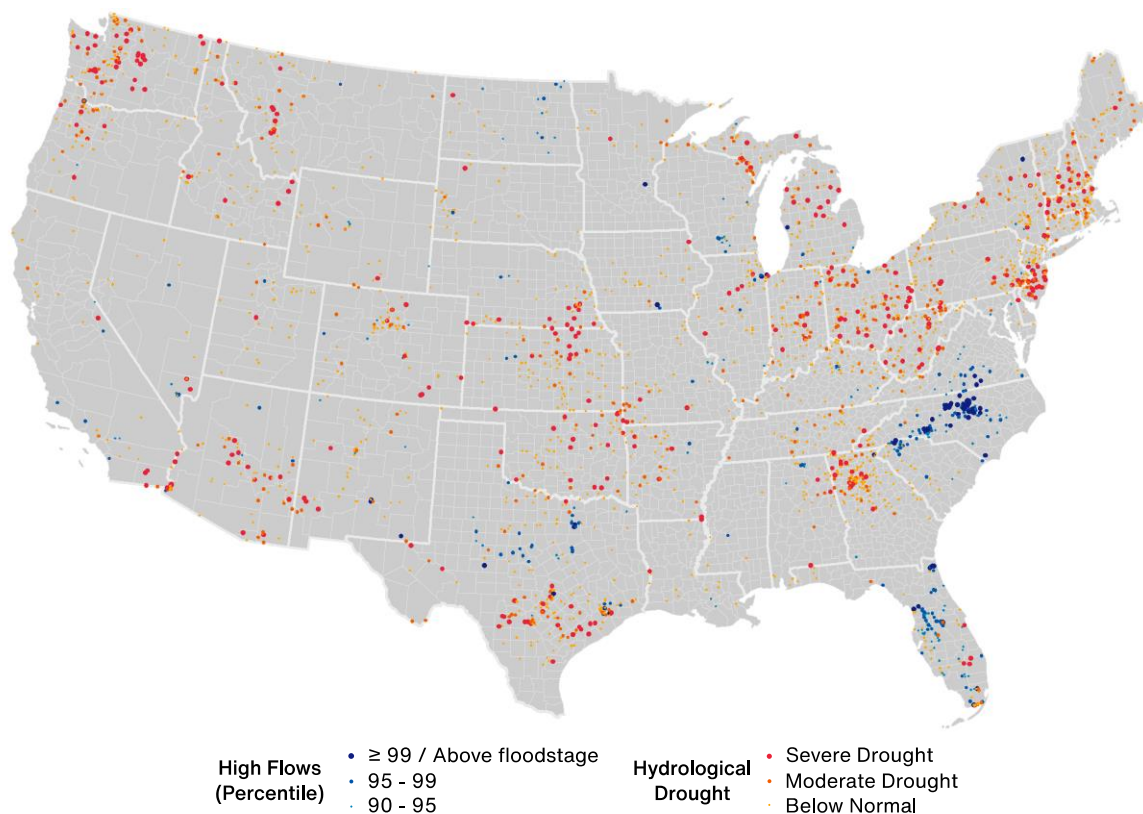


U.S. Wildfire: Significant Fire Risk Outlook & Activity



Source: NIFC

U.S. Current Riverine Flood Risk



A $\geq 99^{\text{th}}$ 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 stream 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: Flooding

National Weather Service (NWS)

New Mexico authorities rescue hundreds after flooding strands many in high water and leaves 2 dead, *AP News*

Officials tour 'unbelievable' deadly flood damage in Roswell following historic rainfall, *Source NM*

New Mexico governor declares state of emergency due to deadly flooding in Roswell area, *Fox Weather*

Northern Europe: Windstorm Ashley

The Irish Meteorological Service (Met Éireann)

European Severe Weather Database (ESWD)

Met Office

France, Italy: Flooding (Update)

Météo-France

Vigili del Fuoco

DWD

Severe Weather Europe

CCR

Canada: Flooding & Landslide

Environment and Climate Change Canada (ECCC) – British Columbia

North Shore residents relive flooding from a decade ago, *CBC*

'We saw the water levels rise': Langley-area neighbourhood hit by damaging flood, *CTV News*

Cuba: Hurricane Oscar

ReliefWeb

National Hurricane Center (NHC)

International Federation of Red Cross and Red Crescent Societies (IFRC)

Havana, Cuban provinces see power restored; Tropical Storm Oscar leaves six dead, *Reuters*

Tropical storm Oscar causes severe damage in the salt pans of Guantánamo, *CiberCuba*

Natural Catastrophes: In Brief

National Hurricane Center (NHC)

Joint Typhoon Warning Center (JTWC)

National Disaster Risk Reduction and Management Council of the Philippines (NDRRMC)

The Watchers

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