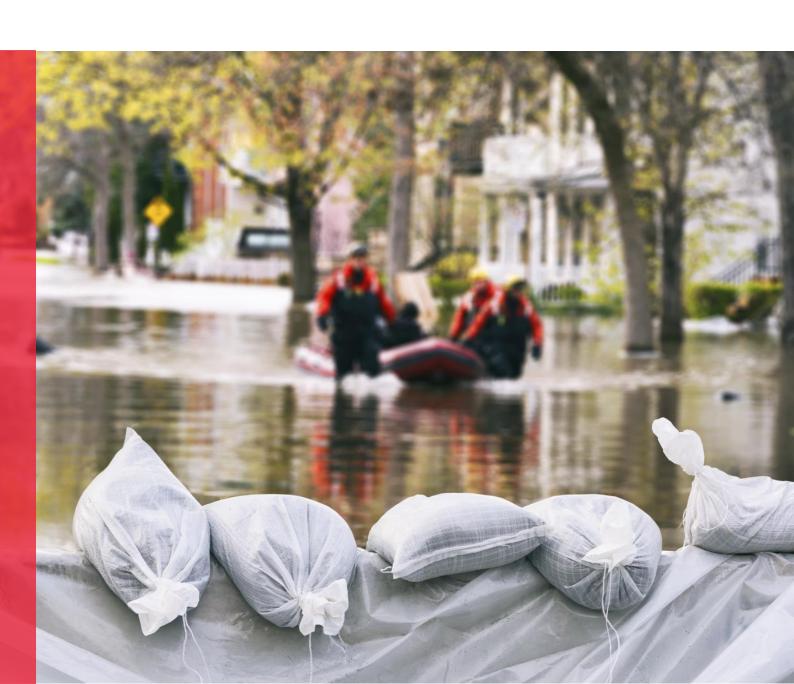


Weekly Cat Report

Review of Global Catastrophe Activity
September 5, 2025





Executive Summary



Event	Affected Region(s)	Fatalities	Economic Loss Estimate (\$)	Page
Earthquake	Afghanistan	2,200+	100s of millions	3
Flooding (Update)	Pakistan, India	913+	Billions	5
Landslide & Flooding (Update)	Sudan, Yemen	378+	N/A	7
Severe Convective Storm	Europe	0	10s of millions	7
Tropical Storm Peipah	Japan	0	N/A	7
Hurricane Lorena	Mexico	0	Negligible	7
Winter Weather	Australia	2	N/A	7
Wildfire	United States	0	Millions	8
Severe Convective Storm	United States	0	100s of millions	8
Flooding	Argentina	0	10s of millions	8

Explore the supplementary graphics in the <u>Appendices</u>. See <u>Additional Report Details</u> for more about loss estimates and data collecting. Explore more or sign up to receive Cat Reports <u>here</u>.



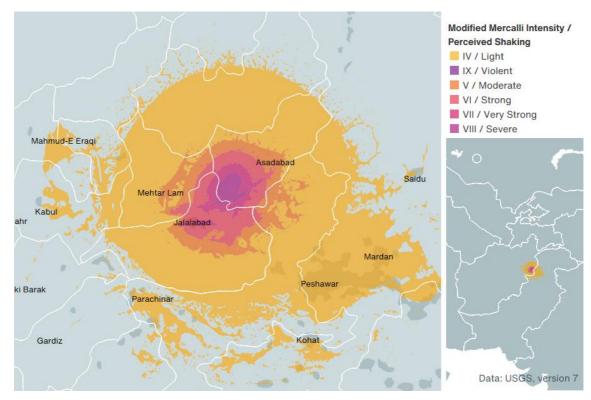
Afghanistan: Earthquake

Overview

On August 31, Kunar, Nangarhar, and other provinces in northeastern Afghanistan experienced a magnitude-6.0 earthquake, which resulted in thousands of casualties and structural damage to over 8,000 houses. Based on the initial damage assessments and estimates by USGS, total economic losses are expected to reach into the hundreds of millions USD, pending future loss development.

Seismological Recap

On August 31 at 19:17 UTC, a magnitude-6.0 earthquake struck at a depth of 8 km (5 miles) in Afghanistan's Nurgal district, Kunar province. The epicenter was located approximately 27 km (17 miles) north-east of Jalālābād. The earthquake occurred at a shallow depth and was the result of compressive forces driven by the northward motion of the India plate colliding with and subducting beneath the Eurasia plate. This event was identified as the mainshock of an earthquake sequence, which included two magnitude-5.2 events. Earthquakes are common in eastern Afghanistan and western Pakistan because of the India-Eurasia plate interactions. Since 1950, 71 other magnitude-6 or larger earthquakes occurred within 250 km (155 miles) of the August 31 earthquake, including six magnitude-7 or larger earthquakes. Earthquakes in this region occur over a broad range of depths.



Event Details

The earthquake mainly affected **Kunar and Nangarhar provinces**, causing significant property and infrastructure damage. Due to mud and stone homes on steep terrain, the area is highly vulnerable to strong quakes. Authorities reported at least 8,000 homes collapsed, mostly in Kunar's Nurgal and Chawkay districts, with additional losses in Nangarhar, Nuristan, Laghman, and Panjshir provinces.



Across Afghanistan, at least 2,200 people lost their lives and approximately 3,600 were injured, with thousands more reported missing under collapsed buildings, according to the Deputy Government Spokesperson as of September 4. The USGS estimated that fatalities could range from 1,000 to 10,000. Nearly 60 million individuals experienced varying intensities of shaking from the earthquake. Most affected regions reported weak or light shaking, while over 800,000 people were exposed to very strong, severe, or violent shaking, including residents of Jalālābād, a city with nearly 300,000 inhabitants.

Note that human and material losses are subject to further changes since damage assessments remain ongoing, with many affected villages still unreachable.

Modified Mercalli Intensity (MMI)	Perceived Shaking	Exposed Population
11-111	Weak	8,436,000
IV	Light	46,279,000
V	Moderate	2,849,000
VI	Strong	1,035,000
VII	Very strong	751,000
VIII	Severe	107,000
IX	Violent	18,000

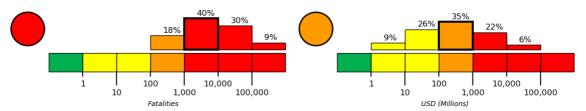
Affected population. Source: USGS, version 7



Source: Norwegian Refugee Council

Financial Loss Estimate

According to the USGS PAGER methodology, economic losses are estimated to potentially reach hundreds of millions of USD, with a 35 percent probability, as the number of affected structures is still being determined. Insured losses are expected to be minimal due to limited insurance coverage in the region.



Estimates of fatalities and economic damage based on USGS PAGER methodology

Source: USGS, version 7



Pakistan, India: Flooding (Update)

Overview

A low-pressure system and strong monsoon currents produced heavy rainfall and major river overflows in Punjab (Pakistan and India), leading to severe flooding in recent days. Since late June, over 883 deaths, 1,200 injuries, 1.3 million displaced people have been reported in Pakistan due to monsoon-induced floods. In India's Punjab, all 23 districts were declared flood-affected, impacting 1,400 villages, submerging 250,000 acres of farmland, and causing 30 deaths.

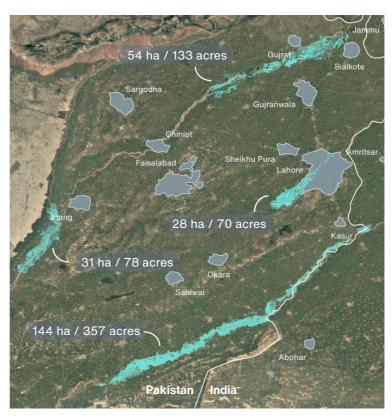
Meteorological Recap

A low pressure system due to westerly wave activity formed over northern India on August 31, supplementing strong monsoon currents and resulting in heavy rainfall and flooding across the states of Punjab in both Pakistan and India in recent days. This followed previous weeks of abovenormal rain in northwest India, north Pakistan, and the upper catchment regions of nearby major rivers. Continued water discharge from overflowing dams in India, which caused the Chenab, Ravi, and Sutlej rivers to overflow two weeks ago, have also worsened the ongoing, large-scale flooding.

Notably, Punjab (India) received 253.7 mm of rain in August, making it the wettest month in 25 years for the state, according to the Indian Meteorological Department. Similarly, Punjab (Pakistan) saw +60% and +11% departure from normal monthly rainfall in July and August, respectively, according to Pakistan Meteorological Department data.

Event Details

Since late June, torrential monsoon rains have resulted in significant loss of life and widespread injuries across Punjab, Khyber Pakhtunkhwa, and Sindh in Pakistan. According to the National **Disaster Management Authority** (NDMA), at least 883 people have died and nearly 1,200 have been injured. In response to flood warnings issued by Indian authorities for crossborder regions, the Pakistan government evacuated over 300,000 people between August 31 and September 3. This brings the total number of displaced individuals since August 1 to nearly 1.3 million. On Tuesday, September 2, the state government of Punjab (India) declared all 23 districts



Areal flood extent in Pakistan since August 15, 2025
Source: Copernicus, September 4



as flood-affected and activated emergency response measures. The floods have impacted around 1,400 villages, submerging more than 250,000 acres of farmland. Official reports confirm 30 fatalities, and approximately 19,600 people have been evacuated from affected areas.

Financial Loss Estimate

Considering the information collected and the scope of the event, economic losses to infrastructure and agriculture from severe flooding over the past week will likely reach the hundreds of millions of USD. Additionally, total monsoon-related economic losses since June 1 are likely to be in the single digit billions of USD.



Global Disasters: In Brief

Sudan, Yemen: Landslide & Flooding (Update)

Sudan is currently facing significant challenges due to persistent heavy rainfall, resulting in river overflows and an increased occurrence of landslides, which have caused considerable human and material losses. Since August 27, widespread flooding has led to at least 32 fatalities, destruction or damage to more than 2,000 homes, and the evacuation of thousands, primarily in the River Nile State. In addition, a massive landslide in the Marra Mountains of Central Darfur, triggered by torrential rains, completely buried the village of Tarasin, resulting in over 1,000 deaths and extensive property damage, according to the Sudan Liberation Movement. The United Nations claims at least 370 deaths, adding that the exact death toll is hard to assess due to the area's remote location and ongoing civil war.

Similarly, recent intense rainfall has affected over 100,000 individuals across Yemen's Hajjah, Shabwa, and Hadramawt governorates. Disaster authorities and media sources report that eight people have lost their lives and several thousand houses have been destroyed as a result of the severe flooding.

Europe: Severe Convective Storm

Storms associated with low-pressure systems Thomas and Ulrich affected parts of Europe on August 28–31, bringing large hail, heavy rain, and strong winds to Spain, Italy, Slovenia, Croatia, and France. The Italian Piedmonte region saw hailstones up to 9 cm (3.5 in) wide, and over 150 mm (5.9 in) of rain fell in southwestern Slovenia within a few hours. The storms caused localized property damage and power outages, but total losses are not expected to exceed tens of millions of euros.

Japan: Tropical Storm Peipah

According to the Japan Meteorological Agency (JMA), Tropical Storm Peipah formed on September 4 near the coast of the Japan's Kyushu Island with maximum wind speeds of 65 kph (40 mph). It is expected to make a brief landfall on Shikoku Island by September 5. The storm is beginning to transition into an extratropical cyclone, bringing heavy rain to southwest Japan. Despite not yet making landfall, cities along the eastern coast of Kyushu have issued "Emergency Safety" evacuation notices due to heightened risks of landslides and flooding. Forecasts predict 200-300 mm (8-12 inches) of rain on September 5 and Peipah becoming fully extratropical the following day.

Mexico: Hurricane Lorena

After peaking as a category 1 storm on September 3, Hurricane Lorena began to gradually weaken while moving north toward western Mexico in the eastern Pacific Ocean. Rain bands have caused minor flooding impacts across Baja California Sur and Sonora, but no significant damage as of late September 4. Flooding impacts may spread into the southwest United States in the coming days.

Australia: Winter Weather

On August 29-30, southeastern Australia was hit by an Antarctic cold front, resulting in heavy snowfall and strong winds. Mount Buller, Victoria, recorded 82 cm (32.3 in) of snow, while New South Wales ski resorts saw up to 40 cm (15.7 in). Winds reaching 130 kph (80 mph) caused power outages and structural damage. The snow extended to low elevations and near five capital cities, disrupting local transportation and public services.



United States: Wildfire

A large volume of lightning strikes, along with preceding dry conditions, ignited several wildfires along the Sierra Nevada foothills near and south of Sacramento, California on September 2. A portion of these fires, collectively named the TCU September Lightning Complex, have burned 13,800 ac (5,600 ha) across Calaveras, Stanislaus, and Tuolumne counties, according to Cal Fire. The largest blaze within the complex, named the 6-5 Fire, has reportedly burned down structures at the historic Chinese Camp site. This fire, along with the nearby 2-7 Fire, have forced roughly 870 people to evacuate as both remain largely uncontained.

United States: Severe Convective Storm

During the afternoon and evening of September 3, central Kansas was impacted by severe weather. Storms producing hail up to 3 in (7.6 cm) in diameter and wind gusts exceeding 70 mph (113 kph) were seen near the city of Wichita. Parts of the metro area and nearby towns, including McPherson, reported notable hail damage to cars and homes.

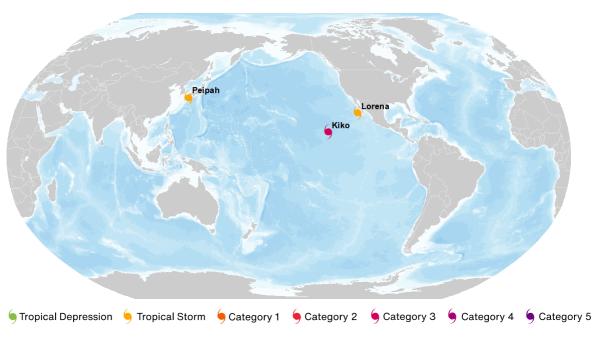
Argentina: Flooding

A large swath of central Argentina was hit was intense rainfall on August 30-31, resulting in notable flooding impacts across the Catamarca, Cordoba, and Buenos Aires provinces. The town of Maria Teresa was among the worst affected as local reports indicated hundreds of homes were flooded. Other impacted areas included the towns of La Chispa, Christophersen, and Cruz Alta, along with many nearby agricultural fields.



Appendices

Current Global Tropical Cyclone Activity

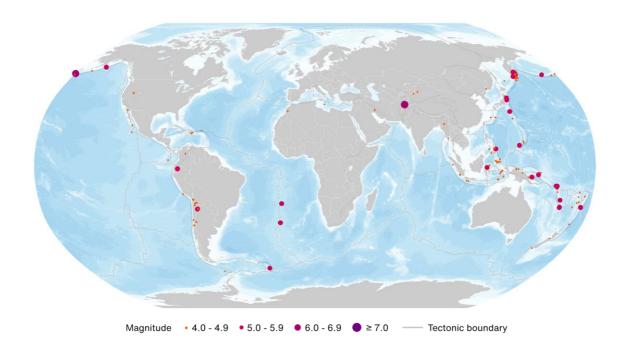


Name	Location	Winds	Center
TS Lorena	24.6N, 114.8W	50	155 mi (255km) W of Cabo San Lazaro, Mexico
HU Kiko	13.9N, 134.6W	130	1410 mi (2270 km) ESE of Hilo, Hawaii
TS Peipah	33.1N, 132.8E	40	90 mi (145 km) SSE of Iwakuni, Japan

Data: National Hurricane Center (NHC), Joint Typhoon Warning Center (JTWC), Central Pacific Hurricane Center (CPHC) | Graphic: Aon Catastrophe Insight



Global Earthquake Activity: M4.0+ Earthquakes on Aug 29-Sep 4



Date (UTC)	Location	Magnitude	Epicenter
8/31/2025	34.71N, 70.79E	6	37 km (23 mi) WSW of Asadabad, Afghanistan
9/3/2025	52.33N, 169.68W	6	87 km (54 mi) SW of Nikolski, Alaska

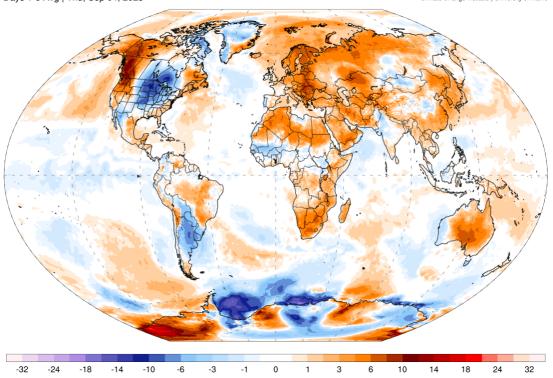
Data: U.S. Geological Survey (USGS) | Graphic: Aon Catastrophe Insight



3-Day Global Temperature Anomaly Forecast

GFS 2m T Anomaly (°C) [CFSR 1979-2000 baseline] Days 1-3 Avg | Thu, Sep 04, 2025

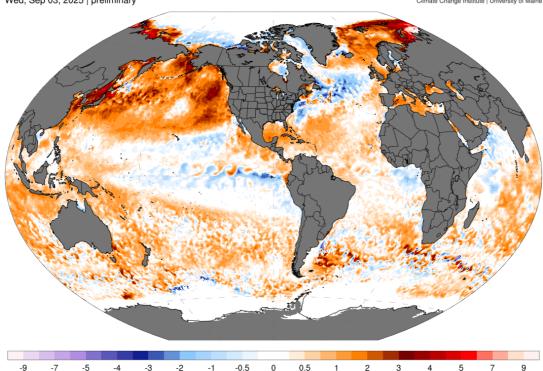
ClimateReanalyzer.org



Current Global Sea Surface Temperature Anomaly

NOAA OISST V2.1 SST Anomaly (°C) [1991-2020 baseline] Wed, Sep 03, 2025 | preliminary

ClimateReanalyzer.org
Climate Change Institute | University of Maine



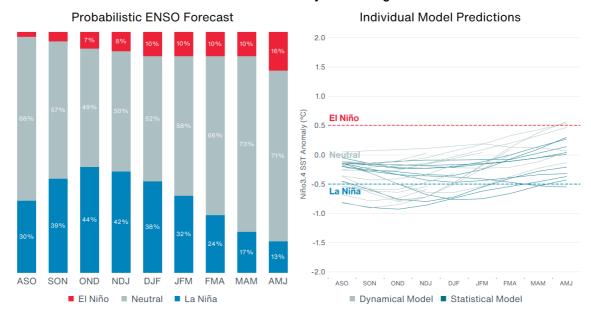
Data & Graphic: Climate Reanalyzer. Climate Change Institute, University of Maine



El Niño-Southern Oscillation (ENSO) Projections

The graphic below shows the projected ENSO phase for upcoming months. These phases (warm El Niño, cool La Niña, and Neutral) are known to shift rainfall patterns and tropical cyclone behavior in many different parts of the world. Read studies by <u>Lenssen et al. (2020)</u> and <u>Mason and Goddard (2001)</u> to find more details about the typical but not guaranteed impacts of the ENSO cycle.

Probabilistic ENSO Model Projections: August 2025



Data: National Oceanic and Atmospheric Administration (NOAA), Columbia University | Graphic: Aon Catastrophe Insight

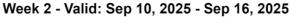


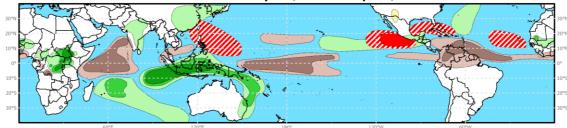
Global Tropics Hazards Outlook



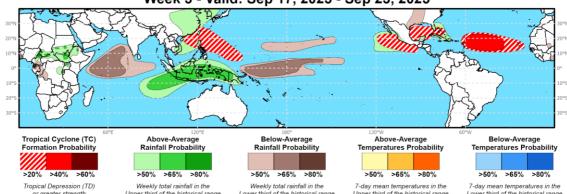
Global Tropics Hazards Outlook Climate Prediction Center







Week 3 - Valid: Sep 17, 2025 - Sep 23, 2025

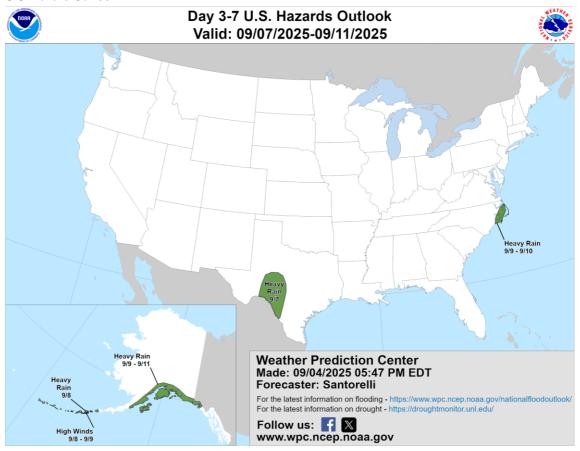


Issued: 09/02/2025 Forecaster: Allgood

Data: Climate Prediction Center (CPC)



U.S. Hazard Outlook

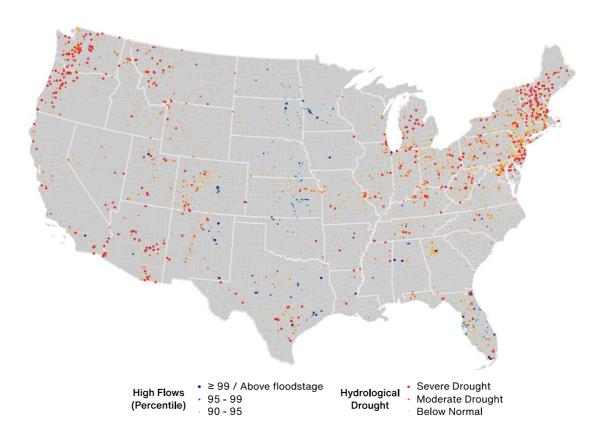


Data: Weather Prediction Center (WPC)



U.S. Current Riverine Flood Risk

A \geq 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.



Data: U.S. Geological Survey (USGS) | Graphic: Aon Catastrophe Insight



References

Afghanistan: Earthquake

U.S. Geological Survey (USGS)

Death toll in deadly earthquake in Afghanistan passes 2,200, AKIpress

Afghanistan death toll passes 1,400 as second earthquake strikes, The Guardian

Pakistan, India: Flooding (Update)

National Disaster Management Authority, Pakistan

Pakistan Meteorological Department

Indian Meteorological Department

Flood In Pakistan, Copernicus Emergency Management Service

Global Disasters: In Brief

UN OCHA

Cal Fire

Storm Prediction Center (SPC)

National Hurricane Center (NHC)

European Severe Weather Database (ESWD)

Impact Forecasting's Automated Event Response (AER)

Strong blizzard brings unusually heavy snow to New South Wales, and Victoria, Australia, *The Watchers*

Heavy rain in Kyushu as Typhoon No. 15 (Paper) approaches. Heavy rain warning for Tokai and

Kanto tomorrow, Weather News Japan

Typhoon No. 15: Paper's predicted path (2025), Weather News Japan

The Japan Meteorological Agency (JMA)

Typhoon Peipah Forms off Southwestern Japan, Jiji Press News

Lightning-Sparked Fires Force Evacuations and Destroy Buildings in California, The New York Times

Severe weather leaves Central Kansas school damaged, classes canceled, KWCH

No reports of serious damage from Hurricane "Lorena": Sheinbaum, El Imparcial

María Teresa: 290 millimeters of rain fell and hundreds of homes were flooded, El Litoral



Additional Report Details

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 financial loss totals are in US dollars (\$) unless noted otherwise.

Structures are defined as any building — including barns, outbuildings, mobile homes, single or multiple family dwellings, and commercial facilities — that is damaged or destroyed by winds, earthquakes, hail, flood, tornadoes, hurricanes, or any other natural-occurring phenomenon.

Claims are defined as the number of claims (which could be a combination of homeowners, commercial, auto, and others) reported by various public and private insurance entities through press releases or various public media outlets.

Damage estimates are obtained from various public media sources, including news websites, publications from insurance companies, financial institution press releases, and official government agencies. Economic loss totals are separate from any available insured loss estimates. An insured loss is the portion of the economic loss covered by public or private insurance entities. In rare instances, specific events may include modeled loss estimates determined from utilizing Impact Forecasting's suite of catastrophe model products.

Fatality estimates as reported by public news media sources and official government agencies.

The information contained herein and the statements expressed are of a general nature and are not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information and use sources we consider reliable, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.



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