



Global Catastrophe Recap

September 2020

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Executive Summary

- Historic wildfires continue to burn across the Western U.S.; insurers face multi-billion-dollar bill
- Sally & Beta make U.S. landfalls as the Atlantic Hurricane Season reaches 23 named storms thus far
- Monsoon rains persist in parts of Asia as the seasonal economic financial toll reaches USD45 billion



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Number of California wildfires in the Top 6 largest (acres burned) in the modern record since 1932



45 billion

Estimated economic cost of seasonal monsoon flooding across Asia in 2020 (June – September)



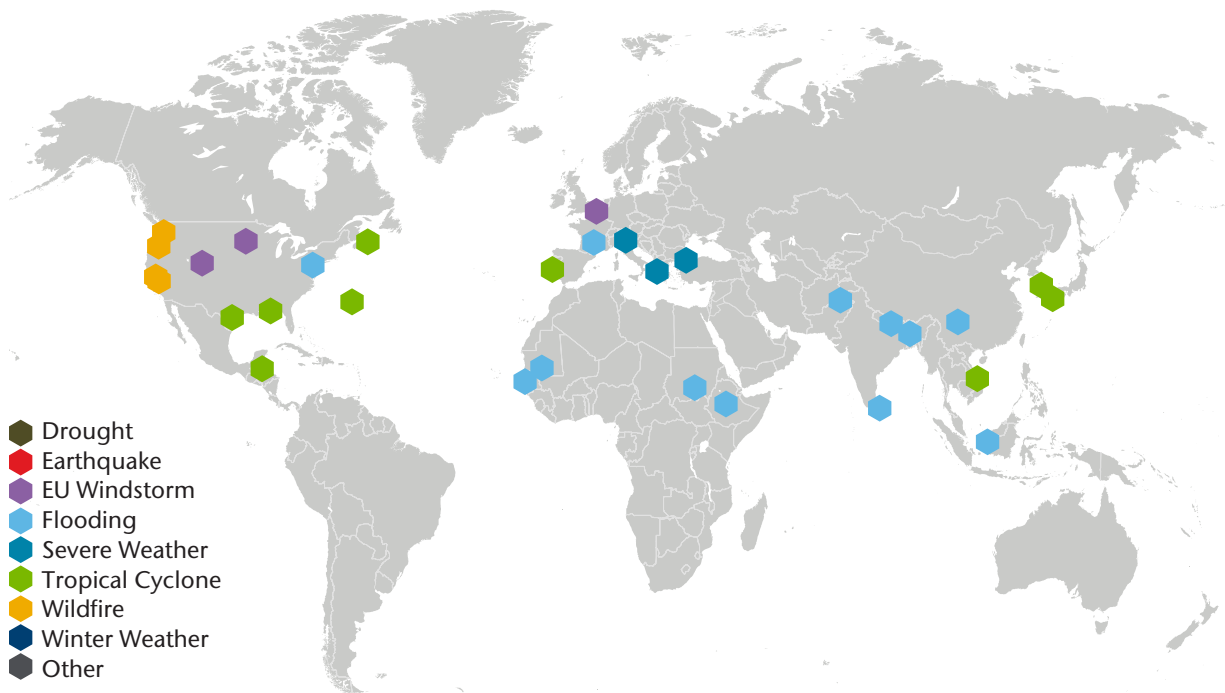
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Total number of U.S. tropical storm or hurricane landfalls YTD; tying 1916 for the most on record



β

Tropical Storm Beta becomes the first Greek alphabet named storm to strike the U.S. in the modern record



United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/16-10/01	Beachie Creek Fire	Oregon	4	Thousands	100s of Millions
08/16-10/01	SCU Complex Fire	California	0	2,000+	175+ million
08/17-09/22	CZU Complex Fire	California	1	12,000+	3.5+ billion
08/17-10/02	LNU Complex Fire	California	5	11,000+	1.6+ billion
08/18-09/04	Carmel Fire	California	0	1,000+	100+ million
08/18-10/01	North Complex Fire	California	15	Thousands	1+ billion
09/04-10/01	Creek Fire	California	0	5,000+	575+ million
09/05-09/06	Severe Weather	Midwest	0	14,000+	165+ million
09/06-09/14	Babb Fire	Washington	0	2,000+	150+ million
09/06-10/01	Bobcat Fire	California	0	Thousands	100+ million
09/07-09/15	Alameda Drive Fire	Oregon	3	5,500+	750+ million
09/07-10/01	Holiday Farm Fire	Oregon	1	Thousands	100s of Millions
09/07-09/09	Severe Weather	West	1	35,000+	375+ million
09/08-10/01	Riverside Fire	Oregon	0	Thousands	100s of Millions
09/08-09/19	Echo Mountain Fire	Oregon	0	Thousands	100+ million
09/08-10/01	Slater Fire	California, Oregon	2	Thousands	100s of Millions
09/11-09/18	Flooding	Mid-Atlantic	0	2,000+	10s of Millions
09/11-09/18	Hurricane Sally	Southeast	8	225,000+	5+ billion
09/20-09/25	Tropical Storm Beta	Plains, Southeast	1	Thousands	100+ million
09/27-10/01	Glass Fire	California	0	Thousands	1+ billion

Significant wildfires continued to burn across parts of the U.S. West throughout September. At least 43 people died in seasonal fire-related incidents. The fires were particularly impactful in California, Oregon, Washington, and Colorado. Record heat, minimal precipitation, and two notably strong offshore wind events led to rapid expansion of the fires. In 2020 to date, the U.S. has reported a record 22 fires with at least 100,000 acres (40,468 hectares) burned. In California alone, five of the state's six largest fire events since 1932 were recorded in August and September; along with five of the state's top 20 most destructive fires on record. Thousands of homes and other structures were also destroyed in Oregon and Washington. Total direct economic costs from the fires across California, Oregon, and Washington alone were likely to reach well into the billions of dollars (USD). This will additionally result in a multi-billion-dollar payout for insurers.

Severe storms propagated through portions of Minnesota, Iowa, Wisconsin, and Illinois on September 5-6. This event brought reports of hailstones approaching and exceeding 2.0 inches (5.1 centimeters) to regions of Minnesota. A maximum measured straight-line wind gust of 83 mph (133 kph) occurred in Iowa. Numerous instances of downed trees and powerlines were reported throughout the affected regions. Total economic losses were estimated at USD165 million; most of which was covered by insurance.

An anomalously strong cold front that progressed across the western two-thirds of the country from September 7-9 spawned high winds which topped hurricane-force and caused notable damage in parts of Utah and Idaho. One person was killed. No less than 170,000 customers lost power in Utah. Total economic losses were estimated at USD375 million.

A narrow corridor of extremely heavy precipitation across portions of Maryland, Virginia, and the District of Columbia (D.C.) produced rainfall amounts approaching and exceeding 3 to 6 inches (75 to 150 millimeters) on September 10. Numerous water rescues were performed, as rising flooding waters affected transportation and trapped motorists. Total economic and insured losses were estimated in the low millions (USD).

After bringing heavy rains and flooding to South Florida and the Florida Keys on September 11-12, Hurricane Sally came ashore near Gulf Shores, Alabama on September 16 as a 105 mph (165 kph) Category 2 storm. At least eight fatalities and several injuries were reported. In addition to hurricane force wind gusts and notable storm surge, the storm prompted significant rainfall across coastal sections of Alabama and the Florida Panhandle, where 20 to 30 inches (500 to 750 millimeters) of precipitation was reported. Afterwards, the slow-moving cyclone brought torrential rainfall and severe weather well-inland with flooding observed in parts of Georgia and the Carolinas. Total economic losses were estimated beyond USD5 billion. Public and private insurance losses exceeded USD2.5 billion.

Tropical Storm Beta meandered in the Gulf of Mexico before making landfall along the southern end of the Matagorda Peninsula near Port O'Connor (Texas) on September 21 with maximum sustained winds of 45 mph (75 kph). The storm's slow movement brought heavy rainfall and flash flooding to coastal Texas and Louisiana before its remnants progressed over the Southeast and Mid-Atlantic states between September 21-25. One of the Top 5 wettest three-day rainfall totals on record in Houston was recorded, along with major flooding elsewhere in Harris County (Texas). Total economic losses were estimated to exceed USD100 million.

Remainder of North America (Non-U.S.)

Date	Event	Location	Deaths	Structures/Claims	Economic Loss (USD)
09/02-09/04	Hurricane Nana	Central America	0	Thousands	20+ million
09/13-09/14	Hurricane Paulette	Bermuda	0	Hundreds	Millions
09/17-09/24	Hurricane Teddy	Canada	0	Hundreds	Millions

Hurricane Nana made landfall along the coast of Belize between Dangriga and Placencia at 1:00 AM CDT (6:00 UTC) on September 3 with maximum wind speeds of 75 mph (120 kph) – equivalent to a low-end Category 1 storm on the Saffir-Simpson Hurricane Wind Scale. Nana brought flooding rains to portions of Belize, Honduras, Guatemala, and southern Mexico. Notable crop damage occurred in Belize. Total combined economic losses were estimated in the tens of millions (USD).

Hurricane Paulette impacted the island of Bermuda in the morning hours of September 14 as a strengthening Category 1 storm, bringing maximum sustained winds of 85 mph (140 kph) with locally higher gusts. The large eye of Paulette completely crossed the Island of Bermuda. The storm resulted in an island-wide power outage and reports of downed trees. Total economic losses were anticipated to be negligible as most structures on Bermuda are built to withstand hurricane-force winds.

Hurricane Teddy, a one-time Category 4 storm over the open waters of the Atlantic Ocean, weakened and transitioned to an extratropical cyclone before approaching Canada. Post-Tropical Storm Teddy and its very large wind field made landfall near Ecum Secum, Nova Scotia on September 23 with maximum sustained winds of 65 mph (100 kph). Teddy brought very high waves, strong winds, and heavy rainfall to portions of Nova Scotia, and Newfoundland and Labrador. Total economic and insured losses were anticipated to be in the low millions (CAD).

South America

Date	Event	Location	Deaths	Structures/Claims	Economic Loss (USD)
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No major natural disaster events were recorded in South America during the month of September.

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
09/15-09/20	Storm Ianos	Greece	4	Thousands	100+ million
09/18-09/19	Subtropical Storm Alpha	Portugal, Spain	1	Hundreds	Millions
09/19	Flooding	France	0	1,000+	30+ million
09/25-09/27	Severe Weather	Italy	0	Thousands	10s of millions
09/26-09/27	Windstorm Odette	Belgium	0	Hundreds	Millions

Medicane Ianos brought rough seas, damaging winds, and flooding rainfall to western and southern regions of Greece between September 17-20. The most significant impacts occurred in portions of the Ionian Islands and Thessaly. Ianos resulted in at least four deaths. Total economic and insured losses were expected to reach USD100 million.

Subtropical Storm Alpha made landfall along the coast of Portugal near Figueira Da Foz (north of Lisbon) on September 18 with maximum sustained winds of 50 mph (85 kph). Alpha brought heavy rainfall, flooding, and isolated tornadoes to portions of central Portugal and Spain, resulting in one fatality. Total economic and insured losses were anticipated to be in the millions (EUR).

Flash flooding impacted parts of the Gard department in southern France on September 19 when up to 750 millimeters (29.5 inches) of rain fell within a 12-hour period in a phenomenon known as a ‘Mediterranean episode’. Among the worst affected was the municipality of Valleraugue. At least 1,000 homes were damaged and further losses were noted on infrastructure.

A severe weather outbreak with widespread effects felt across Italy occurred on September 25-27; it produced large hail, waterspouts and tornadoes, and strong winds. The most affected regions were Veneto, Lombardia, Friuli-Venezia-Giulia, Toscana, Lazio, Campania, Basilicata and Sardegna. Large hail affected agricultural land in Veneto, particularly in the areas north of Vicenza and north of Treviso. Total losses in the sector were tentatively estimated in the tens of millions EUR nationwide.

Coastal areas of western Belgium were hit by Windstorm Odette on September 26-27. Effects were minor, although gusty winds and high waves on the North Sea coast caused some damage in West Flanders, Belgium; particularly in Middelkerke, De Panne, Koksijde, Nieuport and elsewhere. Hundreds of vehicles were reported to be damaged and left in need of repair after being partially covered or buried by sand blown from the beaches by strong winds.

Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
09/29	Severe Weather	Turkey	0	Hundreds	Millions

A notable hailstorm accompanied by strong winds and locally heavy rain affected Istanbul and the Marmara region of Turkey in the morning of September 29. Notable effects were initially reported from the European side of the city, including neighborhoods of Silivri, Buyukcekmece, Catalca, and Arnavutkoy. Further damage was also observed on the eastern side in Umraniye or Suadiye. Hundreds of vehicles were reportedly damaged by large hail; which reached a maximum diameter of 6 centimeters (2.4 inches). The full extent of damage was not yet available.

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/31-09/30	Flooding	Sudan	120	172,000+	250+ million
09/01-09/15	Flooding	Mauritania	7	Hundreds	Unknown
09/05	Flooding	Senegal	6	Thousands	18+ million
09/15-09/30	Flooding	Ethiopia	0	Hundreds	Unknown

Persistent, heavy downpours caused continuation of flooding in Sudan in September; Blue Nile state was the hardest-hit. According to the UN OCHA and governmental agencies, at least 120 fatalities were noted since the start of the unprecedented flooding and more than 172,000 houses sustained damage or were destroyed.

Heavy rains during the first half of September resulted in flooding in parts of Mauritania. Particularly affected were Assaba and Hodh Ech Chargui. There were at least seven fatalities; full extent of material damage was yet to be determined.

Extremely heavy rain resulted in notable flooding in Senegal on September 9. There were at least six fatalities and significant material damage. The country's government released approximately EUR15 million (USD18 million) to deal with the emergency.

Since mid-September, heavy monsoon flooding caused Awash River to break its banks which affected Afar Regional State in northern Ethiopia. Thousands of houses, 200 road sections, and six bridges were either damaged or destroyed. Nearly 50,000 hectares (125,000 acres) of agricultural land was also affected.

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/01-09/30	Flooding	China	278	1.4+ million	32+ billion
06/01-09/30	Flooding	India	1,925	260,000+	6+ billion
06/01-09/30	Flooding	Nepal	402	15,000+	10s of Millions
07/01-09/30	Flooding	Pakistan	410	310,000+	1.5+ billion
09/01-09/22	Flooding	Sri Lanka	6	1,000+	Unknown
09/03-09/04	Typhoon Maysak	Korean Peninsula, China	32	11,200+	100+ million
09/06-09/08	Typhoon Haishen	Japan, Korean Peninsula	4	10,000+	100+ million
09/11-09/30	Flooding	Indonesia	20	6,100+	Millions
09/17-09/21	Tropical Storm Noul	Vietnam, Laos, Cambodia, Thailand	18	25,000+	50+ million

Seasonal monsoon flooding persisted during much of September in China, as officials noted that flooding in some parts of the country was the worst since 1998. Approximately 29 provincial level regions were affected with major impacts noted in the regions located along the greater Yangtze River basin. More than 836 locations along rivers and lakes recorded flooding during the season. According to the China's Ministry of Emergency Management (MEM), at least 278 people were killed, and more than 1.4 million homes were damaged or destroyed year-to-date; most since the arrival of Mei-yu rains in China. Nearly 5 million hectares (12 million acres) of agricultural land was affected. Total combined economic losses were estimated at CNY220 billion (USD32 billion).

Further rainfall associated with the southwest monsoon brought damage and casualties in India during September. Some of the worst-hit states were Assam, West Bengal, Karnataka, Madhya Pradesh, Chhattisgarh, Gujrat, Maharashtra, Kerala, and Odisha. According to the Disaster Management Division, Indian Ministry of Home Affairs, at least 1,925 people were killed and approximately 260,000 homes were damaged or destroyed. Roughly 1.4 million hectares (3.5 million acres) of agricultural land was affected in 30,000 villages across the Indian states. Severe losses were inflicted on the local infrastructure. The total combined losses were anticipated to exceed INR443 billion (USD6 billion).

Above-average rainfall during the 2020 monsoon season prompted further flash floods and landslides in September across Nepal. The seasonal death toll rose to more than 402, including 120 in September alone, per the National Disaster Risk Reduction and Management Authority. Tens of thousands of houses were damaged, and an extensive area of agricultural land was affected. The combined economic toll was likely to surpass USD100 million.

Seasonal monsoon flooding continued to affect Pakistan throughout September. The government cited at least eight episodes of heavy precipitation across the country, claiming no less than 410 lives. Provinces of Sindh, Balochistan, Khyber Pakhtunkhwa, and Punjab were noted as the worst-hit. According to Pakistan's National Disaster Management Agency, no fewer than 310,000 houses were either damaged or destroyed and an extensive area of cropland were inundated. Further losses were inflicted on the local infrastructure. The total combined economic losses were to exceed USD1.5 billion.

At least six people were killed due to heavy precipitation across Sri Lanka since September 1. According to the Disaster Management Centre of Sri Lanka, approximately 1,000 homes were either damaged or destroyed.

Typhoon Maysak made landfall in South Korea near Busan City on September 3 with an estimated 1-minute average sustained winds of 155 kph (100 mph). South Korea's Ministry of Interior and Safety cited two storm-related casualties and notable damage to nearly 2,000 facilities and 5,000 hectares (12,500 acres). The storm later affected the eastern parts of North Korea, China, and Russia, causing at least 30 additional casualties and damage to 9,200 houses. Total combined economic losses were anticipated to surpass USD100 million.

Typhoon Haishen became the third consecutive typhoon to make landfall in the Korean Peninsula in a matter of weeks. Haishen came ashore near the coastal city of Ulsan in South Korea on September 7 with 160 kph (100 mph) winds. At least four casualties were reported in Japan (2) and South Korea (2). The storm spawned notable flood- and wind-related damage and major power outages. Around 10,000 combined houses were damaged, destroyed or flooded in storm-related incidents. Total combined economic losses were anticipated to surpass USD100 million.

Heavy rains triggered flash floods and landslides in parts of Indonesia between September 5-30, particularly in the West Kalimantan, Central Kalimantan, Gorontalo, and North Sumatra provinces. According to the National Board for Disaster Management, at least 20 people were killed. Nearly 6,100 homes were damaged, destroyed or inundated.

Tropical Storm Noul made landfall near Da Nang City in Vietnam on September 18. The storm and its remnants resulted in at least 18 combined fatalities in Vietnam (6), Cambodia (11), and Thailand (1). Federal government data cited at least 25,000 combined houses damaged or destroyed, power-outages, and notable damage to agriculture and infrastructure. Total economic losses were estimated at VND755 billion (USD33 million) in Vietnam alone. Given the damage footprints elsewhere in Southeast Asia, the total combined economic losses were likely to surpass USD50 million; likely even higher.

Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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No major natural disaster events were recorded in Oceania during the month of September.

Appendix

Updated 2020 Data: January-August

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	Nationwide	N/A	N/A	1.0+ billion
01/10-01/12	Severe Weather	Central & Eastern U.S.	12	115,000+	1.28+ billion
02/03-02/08	Severe Weather	Central & Eastern U.S.	5	135,000+	1.5+ billion
02/08-02/10	Severe Weather	West	0	15,000+	140+ million
02/10-02/17	Flooding	Southeast	0	Thousands	175+ million
02/25-02/27	Winter Weather	Midwest, Northeast	1	Thousands	75+ million
03/02-03/05	Severe Weather	Midwest, Southeast	25	55,000+	2.4+ billion
03/11-03/13	Severe Weather	Midwest, Southeast	0	Thousands	75+ million
03/17-03/20	Severe Weather	Plains, Midwest, Southeast, Northeast	0	30,000+	290+ million
03/18	Earthquake	Utah	0	Thousands	10s of millions
03/20	Flooding	Midwest	8	30,000+	290+ million
03/24-03/25	Severe Weather	Southeast	0	Thousands	90+ million
03/27-03/30	Severe Weather	Plains, Midwest, Southeast, Northeast	0	165,000+	2.9+ billion
03/31	Severe Weather	Southeast	0	10,000+	125+ million
03/31	Earthquake	Idaho	0	2,000+	20+ million
04/06-04/09	Severe Weather	Midwest, Plains, Southeast, Mid-Atlantic	0	270,000+	3.0+ billion
04/10-04/14	Severe Weather	Midwest, Plains, Southeast, Mid-Atlantic	38	270,000+	3.45+ billion
04/18-04/20	Severe Weather	Midwest, Plains, Southeast	3	70,000+	800+ million
04/21-04/24	Severe Weather	Plains, Southeast, Mid-Atlantic	7	125,000+	1.45+ billion
04/24-04/26	Severe Weather	Midwest, Plains, Southeast, Mid-Atlantic	0	65,000+	850+ million
04/27-04/30	Severe Weather	Midwest, Plains, Southeast	0	112,500+	1.05+ billion
05/02-05/03	Severe Weather	Plains, Midwest, Southeast	2	68,000+	850+ million
05/04-05/05	Severe Weather	Plains, Midwest, Southeast	0	120,000+	1.5+ billion
05/05-05/20	Wildfire	Florida	0	500+	50+ million
05/07-05/08	Severe Weather	Plains, Southeast	0	17,000+	150+ million
05/13-05/15	Severe Weather	Plains, Midwest, Northeast	0	55,000+	530+ million
05/15	Earthquake	Nevada	0	Unknown	10+ million
05/16-05/21	Severe Weather & Floods	Plains, Midwest, Southeast	1	110,000+	1.9+ billion
05/20-05/24	Severe Weather	Rockies, Plains, Midwest	2	140,000+	1.65+ billion
05/24-05/27	Tropical Storm Bertha	Southeast, Mid-Atlantic	0	15,000+	200+ million
05/25-05/26	Severe Weather	Plains, Midwest, Southeast	0	15,000+	135+ million
05/27-05/28	Severe Weather	Texas	0	125,000+	1.55+ billion
05/30-05/31	Severe Weather	Northwest	0	Hundreds	10s of millions
06/02-06/04	Severe Weather	Plains, Midwest, Northeast	3	57,500+	775+ million
06/04	Severe Weather	South Dakota	0	30,000+	380+ million
06/05-06/11	Severe Weather	West, Rockies, Plains, Midwest	0	77,500+	800+ million
06/06-06/09	Tropical Storm Cristobal	Southeast, Plains, Midwest	1	20,000+	325+ million
06/19-06/22	Severe Weather	Plains, Midwest, Southeast	0	35,000+	255+ million
06/26-06/27	Severe Weather	Plains, Midwest	0	10,000+	65+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/02-07/10	Severe Weather	Rockies, Plains, Midwest	1	Thousands	150+ million
07/05-07/07	Severe Weather	Mid-Atlantic	1	17,500+	215+ million
07/10-07/11	Tropical Storm Fay	Southeast, Northeast	6	15,000+	350+ million
07/10-07/12	Severe Weather	Rockies, Plains, Southeast, Midwest	0	97,500+	1.2+ billion
07/17-07/19	Severe Weather	Plains, Midwest, Northeast	0	14,000+	150+ million
07/20-07/23	Severe Weather	Plains, Midwest, Mid-Atlantic	0	7,500+	100+ million
07/25-07/27	Hurricane Hanna	Texas	0	45,000+	775+ million
07/26-07/27	Hurricane Douglas	Hawaii	0	Unknown	Negligible
08/02-08/04	Hurricane Isaias	Southeast, Mid-Atlantic, Northeast	15	340,000+	5+ billion
08/05	Severe Weather	Colorado	0	22,000+	260+ million
08/08-08/12	Severe Weather	Plains, Midwest, Mid-Atlantic	4	325,000+	8+ billion
08/09	Earthquake	North Carolina	0	Hundreds	25+ million
08/13-08/17	Severe Weather	Plains, Midwest	0	40,000+	400+ million
08/18	Severe Weather	Florida	0	2,000+	50+ million
08/23-08/24	Hurricane Marco	Southeast	0	Hundreds	25+ million
08/26-08/28	Severe Weather	Plains, Mid-Atlantic, Northeast	0	25,000+	205+ million
08/27-08/29	Hurricane Laura	Plains, Southeast, Mid-Atlantic	33	400,000+	14+ billion
08/29-08/30	Severe Weather	Plains	0	25,000+	110+ million

Remainder of North America (Non-U.S.)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/07-01/11	Earthquake	Puerto Rico	1	20,000+	1.45+ billion
01/11-01/12	Flooding	Canada	0	6,200+	180+ million
01/14-01/18	Winter Weather	Canada	0	Thousands	10s of millions
01/14-01/20	Winter Weather	Canada	0	Thousands	10s of millions
01/17-01/18	Winter Weather	Canada	0	Thousands	10s of millions
01/28	Earthquake	Cayman Islands, Jamaica, Cuba	0	2,250+	Millions
01/31-02/01	Flooding	Canada	0	2,000+	10s of millions
02/06-02/08	Winter Weather	Canada	0	2,000+	10s of millions
02/26-02/28	Winter Weather	Canada	1	Thousands	75+ million
02/28-02/29	Severe Weather	Honduras	3	Hundreds	Millions
04/13	Flooding	Canada	0	1,500+	25+ million
04/26-04/30	Flooding	Canada	1	4,000+	885+ million
05/02	Earthquake	Puerto Rico	0	3,000+	150+ million
05/09	Severe Weather	Mexico	2	100+	Millions
05/31	Tropical Storm Amanda	El Salvador, Guatemala, Honduras	33+	3,400+	200+ million
06/01-06/05	Tropical Storm Cristobal	Mexico, Guatemala, El Salvador	1	10,000+	340+ million
06/13-06/14	Severe Weather	Canada	0	65,000+	1.4+ billion
06/23	Earthquake	Mexico	10	Thousands	75+ million
06/28-06/29	Severe Weather	Canada	0	2,000+	55+ million
07/08	Severe Weather	Canada	0	Thousands	10s of millions+
07/12	Severe Weather	Canada	0	Hundreds	25+ million
07/16	Severe Weather	Canada	0	1,000+	25+ million
07/19	Severe Weather	Canada	0	1,000+	30+ million
07/23-07/24	Severe Weather	Canada	0	11,000+	133+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/25-07/27	Hurricane Hanna	Mexico	5	Thousands	100+ million
07/28-08/01	Hurricane Isaias	Caribbean, Canada	3	Thousands	225+ million
08/02-08/03	Severe Weather	Canada	0	5,000+	57+ million
08/18-08/21	Hurricane Genevieve	Mexico	2	Hundreds	Millions
08/21-08/22	Hurricane Marco	Mexico, Costa Rica	1	Thousands	10s of millions
08/22-08/25	Hurricane Laura	Caribbean	35	Thousands	100+ million

South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/17-01/29	Flooding	Brazil	70	Thousands	300+ million
02/08-02/29	Flooding	Bolivia	17	1,000+	10s of millions
02/09-02/10	Flooding	Brazil	4	4,000+	50+ million
02/11-02/19	Flooding	Argentina	1	1,000+	10s of millions
02/17-02/25	Flooding	Peru	4	2,400+	10s of millions
02/25-02/27	Flooding	Colombia	8	750+	Millions
03/01-03/03	Flooding	Brazil	70	Thousands	10s of millions
06/30	Severe Weather	Brazil	10	Thousands	10s of millions
07/01-07/15	Flooding	Brazil	0	1,000+	10s of millions
07/01-07/15	Flooding	Colombia	11	6,000+	Millions
08/14-08/15	Severe Weather	Brazil	1	5,000+	16+ million

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/13	Windstorm Brendan	Ireland, United Kingdom	1	Thousands	10s of millions
01/19-01/23	Flooding	Spain	14	11,600+	300+ million
02/03-02/04	Windstorm Petra	Central Europe	3	12,500+	180+ million
02/09-02/10	Windstorm Ciara	Western & Central Europe	14	1.1+ million	2.6+ billion
02/15-02/16	Windstorm Dennis	Western & Northern Europe	6	Thousands	700+ million
02/23-02/24	Windstorm Yulia	Central Europe	0	Thousands	100+ million
02/27	Windstorm Bianca	Western & Central Europe	0	Thousands	10s of millions
02/29	Windstorm Jorge	Western Europe	0	Thousands	10s of millions
03/01	Windstorm Leon	France	0	Hundreds	Millions
03/02	Windstorm Karine	France, Spain	0	Hundreds	Millions
03/03	Windstorm Myriam	France, Spain	0	Thousands	10s of millions
03/12	Windstorm Laura	Denmark, Sweden, Germany, Poland	0	Thousands	10s of millions
03/22	Earthquake	Croatia	1	26,197+	1.1+ billion
03/23-04/02	Winter Weather	Central & Southern Europe	0	N/A	500+ million
04/01	Flooding	Spain	0	2,000+	15+ million
04/04-04/06	Flooding	Greece	0	Hundreds	Millions
04/15	Winter Weather	Austria	0	N/A	30+ million
04/17	Severe Weather	France	0	500+	Millions
05/09-05/11	Severe Weather	Western & Central Europe	0	Hundreds	10s of millions
05/29-05/30	Severe Weather	Ukraine & Belarus	0	Hundreds	Millions
06/07	Flooding	Central Europe	2	Thousands	10s of millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/10-06/26	Flooding	Romania	3	3,100+	85+ million
06/11	Flooding	France	0	Hundreds	Millions
06/13-06/15	Severe Weather	Central Europe	1	20,000+	10s of millions
06/22-06/29	Flooding	Ukraine, Central Europe	4	22,000+	345+ million
06/22-06/23	Flooding	Serbia, Bosnia & Herzegovina	0	1,800+	43+ million
06/26-06/29	Severe Weather	Central Europe	0	Thousands	60+ million
07/06	Wildfire	Ukraine	5	100+	144+ million
07/14	Severe Weather	Spain	0	Thousands	35+ million
07/14-07/15	Severe Weather	Russia	0	1,500+	Millions
07/15	Flooding	Italy	2	500+	Millions
07/28-07/29	Severe Weather	Central Europe	0	Thousands	80+ million
08/04-08/05	Severe Weather	Central Europe	0	Thousands	100+ million
08/08-08/09	Flooding	Greece	8	3,000+	Millions
08/09-08/12	Severe Weather	Central Europe	0	Hundreds	Millions
08/11	Severe Weather	Spain	0	Thousands	Millions
08/19-08/20	Windstorm Ellen	Ireland, United Kingdom	0	Hundreds	Millions
08/22-08/23	Severe Weather	Italy, Austria	0	Hundreds	Millions
08/25-08/26	Windstorm Francis	Western & Central Europe	0	Hundreds	Millions
08/29-08/30	Severe Weather	Italy, Central Europe	4	Thousands	100+ million

Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/04-01/09	Flooding	Israel	7	45,000+	580+ million
01/09-01/20	Flooding	Iran	4	20,000+	808+ million
01/24	Earthquake	Turkey	41	23,000+	10s of millions
02/04-02/05	Winter Weather	Turkey	41	Unknown	Unknown
02/23	Earthquake	Turkey, Iran	14	6,000+	Millions
02/24-04/30	Flooding	Iran	23	10,000+	1.2+ billion*
03/12-03/13	Flooding	Egypt	40	Thousands	76+ million
03/18	Flooding	Iraq	8	1,000+	Millions
03/25	Flooding	Yemen	2	2,000+	10+ million
04/15-04/30	Flooding	Yemen	14	Hundreds	Unknown
05/27-05/31	Flooding	Oman	3	Hundreds	Millions
06/03-06/04	Flooding	Yemen	16	Hundreds	Unknown
06/14	Earthquake	Turkey	1	2,200+	Millions
06/21-06/23	Flooding	Turkey	7	Hundreds	Millions
07/22-07/25	Flooding	Yemen	17	100+	Unknown
08/02-08/07	Flooding	Yemen	174	Hundreds	Millions
08/22-08/23	Flooding	Turkey	15	690+	10+ million

*Free market conversion rate; Unofficial local exchange (USD325 million)

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/31	Flooding	Madagascar, Mozambique	60	25,800+	Millions
01/28-02/03	Flooding	Tanzania	40	3,000+	Millions
01/28-02/13	Flooding	Burundi	3	5,000+	Millions
01/01-03/31	Flooding	Rwanda	60	Thousands	Millions
01/01-03/31	Flooding	Rwanda	60	1,000+	Millions
03/10-03/17	Flooding	Tanzania	0	3,500+	Unknown
03/13-03/17	Cyclone Herold	Madagascar	4	1,000+	Unknown
03/14-03/18	Flooding	Democratic Republic of the Congo	0	5,000+	Millions
03/16-03/22	Severe Weather	Burundi	2	1,000+	Millions
03/17-03/22	Flooding	Zambia	0	2,200+	Unknown
03/24-05/31	Flooding	Kenya	237	15,000+	Millions
04/13-04/19	Flooding	Burundi	0	6,000+	Millions
04/16-04/17	Flooding	Democratic Republic of the Congo	52	18,500+	Millions
04/17-04/25	Flooding	Rwanda	16	750+	Unknown
04/18	Flooding	Angola	24	2,000+	Millions
04/20-04/21	Flooding	Djibouti	8	Thousands	Millions
04/20-04/28	Flooding	Somalia	13	Hundreds	Unknown
05/01-05/07	Flooding	Rwanda	73	Hundreds	Unknown
05/09	Flooding	Ethiopia	12	Unknown	Negligible
05/28	Flooding	Ethiopia	10	Unknown	Negligible
06/15-07/20	Flooding	Somalia	4	Thousands	Unknown
06/18	Flooding	Ivory Coast	17+	12+	Unknown
06/24-07/31	Flooding	Nigeria	30+	Hundreds	Unknown
07/01-08/31	Flooding	Niger	51	22,000+	Millions
07/01-08/31	Flooding	South Sudan	NA	Thousands	Millions
08/01-08/31	Flooding	Mali	0	2,000+	Unknown
08/01-08/31	Flooding	Chad	10	2,500+	Millions
08/01-08/31	Flooding	Sudan	102	100,000+	100+ million
08/01-08/31	Flooding	Kenya	0	1,000+	Unknown
08/25-08/31	Flooding	Uganda	8	Thousands	Unknown

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-08/31	Drought	China	N/A	N/A	2.4+ billion
01/04-01/07	Winter Weather	China	0	5,000+	70+ million
01/05-01/09	Severe Weather	China	0	2,500+	35+ million
01/11-01/14	Winter Weather	Afghanistan, Pakistan, India	157	Thousands	Millions
01/12-01/15	Volcano	Philippines	0	3,813+	67+ million
01/19	Earthquake	China	1	8,000+	25+ million
01/23-01/28	Flooding	Indonesia	10	15,000+	Millions
01/23-01/26	Winter Weather	China	0	1,000+	239+ million
02/07-02/12	Flooding	Indonesia	0	4,000+	Millions
02/12-02/15	Severe Weather	China	1	Hundreds	16+ million
02/13-02/16	Winter Weather	China	0	Hundreds	30+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
02/16-02/20	Flooding	Indonesia	6	20,000+	Millions
02/21-02/25	Flooding	Indonesia	10	35,000+	10s of millions
03/02-03/05	Severe Weather	Vietnam	3	7,187+	1.5+ million
03/04-03/13	Flooding	Pakistan	44	1,000+	Unknown
03/04-03/06	Flooding	Indonesia	2	8,000+	7.2+ million
03/13	Flooding	East Timor	3	2,000+	20+ million
03/20-03/21	Flooding	Indonesia	0	10,000+	Millions
03/21-03/25	Severe Weather	Vietnam	1	5,430+	4.1+ million
03/25-03/31	Flooding	Afghanistan	35	3,000+	Unknown
03/30	Flooding	China	8	Unknown	Millions
03/30-03/31	Flooding	Indonesia	1	11,900+	Millions
03/30-03/31	Wildfire	China	19	N/A	Negligible
04/01	Earthquake	China	1	3,400+	25+ million
04/01-04/30	Flooding	China	0	5,000+	285+ million
04/01-04/30	Severe Weather	China	0	10,000+	250+ million
04/04-04/05	Flooding	Indonesia	3	Hundreds	Unknown
04/09-04/16	Flooding	Indonesia	0	7,500+	Unknown
04/10-04/12	Flooding	Vietnam	0	716+	1.7+ million
04/13-04/14	Severe Weather	China	0	2,000+	15+ million
04/17-04/19	Severe Weather	China	0	7,500+	65+ million
04/19-04/22	Winter Weather	China	0	Unknown	475+ million
04/20-04/28	Flooding	Indonesia	3	2,500+	Millions
04/21-04/22	Severe Weather	China	0	Thousands	72+ million
04/22-04/27	Flooding	Vietnam	3	6,000+	Millions
04/27	Severe Weather	Uzbekistan, Turkmenistan	1	5,000+	Millions
04/29-05/09	Severe Weather	Thailand	2	10,100+	Millions
04/30	Flooding	Indonesia	0	22,000+	Millions
04/30-05/05	Flooding	Indonesia	3	25,000+	Millions
05/02-05/05	Flooding	Afghanistan	4	1,100+	Unknown
05/02-05/05	Flooding	China	0	Unknown	92+ million
05/03-05/05	Winter Weather	China	0	Unknown	70+ million
05/05-05/08	Flooding	Indonesia	7	916+	Unknown
05/07-05/10	Severe Weather	Vietnam	1	8,720+	Millions
05/10	Severe Weather	India	29	Unknown	Millions
05/14-05/15	Typhoon Vongfong	Philippines	0	20,000+	50+ million
05/15-05/19	Severe Weather	Vietnam	3	2,000+	Unknown
05/15-05/22	Cyclone Amphan	India, Bangladesh, Sri Lanka	118+	1.2+ million	13+ billion
05/15-05/31	Severe Weather	China	4	Unknown	71+ million
05/18-05/25	Flooding	Indonesia	0	4,000+	Millions
05/18	Earthquake	China	4	1,100+	17+ million
05/19-05/22	Flooding	China	7	Unknown	128+ million
05/25-05/26	Severe Weather	Russia	6	Thousands	Millions
06/01-08/31	Flooding	Bangladesh	257	1.3+ million	500+ million
06/03-06/04	Tropical Storm Nisarga	India	6	500,000+	660+ million
06/10-06/14	Tropical Storm Nuri	China, Philippines	0	Thousands	Unknown
06/11-06/13	Flooding	Indonesia	1	4,850+	2.1+ million
06/24-06/25	Severe Weather	India	127	Thousands	10s of millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/27-07/01	Flooding	Malaysia	0	Unknown	6.8+ million
07/01-08/14	Flooding	South Korea	42	14,100+	420+ million
07/02-07/04	Flooding	Mongolia	8	2,500+	1.7+ million
07/03-07/10	Flooding	Japan	82	20,000+	5.0+ billion
07/03-07/30	Flooding	Indonesia	109	21,600+	Millions
07/18-07/21	Flooding	Vietnam	5	3,000+	22+ million
07/19-07/30	Flooding	Myanmar	0	4,000+	Unknown
07/31-08/01	Flooding	Afghanistan	14	Hundreds	Unknown
08/01-08/03	Tropical Storm Sinlaku	Vietnam, Thailand	6	12,000+	Millions
08/03-08/04	Typhoon Hagupit	China, Taiwan	1	Thousands	1.5+ billion
08/04-08/10	Flooding	North Korea	22	17,000+	Millions
08/10-08/11	Tropical Storm Jangmi	South Korea, Japan	0	Thousands	Millions
08/11-08/12	Typhoon Mekkhala	China	0	Thousands	161+ million
08/18	Earthquake	Philippines	1	1,000+	Negligible
08/18-08/19	Tropical Storm Higos	China, Vietnam, Thailand	11	4,000+	142+ millions
08/21-08/24	Flooding	Vietnam, Thailand	9	5,000+	Millions
08/22-08/27	Typhoon Bavi	North Korea, South Korea, China	0	Hundreds	Millions
08/24-08/27	Flooding	Afghanistan	190	2,000+	Unknown

Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/08-01/17	Heatwave/Bushfire	Australia	34	23,362+	Billions
01/18-01/20	Severe Weather	Australia	0	129,201+	1.6+ billion
02/01-02/08	Flooding	New Zealand	0	1,100+	25+ million
02/07-02/11	Severe Weather	Australia	0	100,384+	1.0+ billion
02/25	Severe Weather	Australia	0	2,000+	Millions
03/21-03/24	Flooding	Papua New Guinea	12	1,000+	Unknown
04/04-04/07	Flooding	Papua New Guinea	0	1,000+	Millions
04/05-04/11	Cyclone Harold	Solomon Islands, Vanuatu, Fiji, Tonga	30	10,000+	100s of millions
04/10	Flooding	Papua New Guinea	10	Unknown	Negligible
04/19	Severe Weather	Australia	0	Thousands	Millions
5/25	Severe Weather	Australia	0	Hundreds	Millions
06/26-06/27	Severe Weather	New Zealand	0	Hundreds	Millions
07/17-07/18	Flooding	New Zealand	0	Thousands	Millions
08/05-08/08	Severe Weather	Australia	0	2,000	Millions

Additional Report Details

TD = Tropical Depression, TS = Tropical Storm, HU = Hurricane, TY = Typhoon, STY = Super Typhoon, CY = Cyclone

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

Structures 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 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. Damage estimates are determined based on 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.

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