



Global Catastrophe Recap

September 2018

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Executive Summary

- Hurricane Florence strikes the U.S.; majority of flood damage likely to be uninsured
- Typhoon Jebi makes landfall in Japan as insurers brace for a multi-billion-dollar payout
- Magnitude-7.5 earthquake and tsunami leaves catastrophic damage & 2,000+ dead in Indonesia

September is typically the busiest month for tropical cyclone activity around the globe, and 2018 proved to be active with multiple landfalls in the Northern Hemisphere. The United States endured two September landfalls: Tropical Storm Gordon and Hurricane Florence. The costliest event was Florence. The storm made landfall in North Carolina as a Category 1 hurricane with 90 mph (150 kph) winds. At least 53 people were killed directly or indirectly. Storm surge, winds gusting to 100 mph (160 kph), and catastrophic inland flooding were noted in North Carolina. Additional damage was cited in South Carolina and Virginia. Total economic losses will exceed USD10 billion, though it will be months until the full scope is realized. Insured losses are expected in the low-digit billions due to low flood insurance penetration.

Typhoon Jebi made landfall in Japan and prompted widespread wind and flood damage across numerous prefectures. According to the Japan Meteorological Agency, Jebi became the strongest typhoon to strike the Japanese mainland since 1993. Total economic losses were expected to reach well into the billions of dollars (USD). The General Insurance Association of Japan (GIAJ) cited that nearly 486,000 insurance claims had been filed. A multi-billion-dollar payout is expected.

Super Typhoon Mangkhut caused widespread impacts in the Philippines, Hong Kong, and China. The one-time Category 5 storm left at least 102 people dead. More than 210,000 homes were damaged in the Philippines alone, and further storm surge, wind, and inland flood damage was noted across parts of China, Hong Kong, and Macau. Total combined economic damage and net loss business interruption was expected to reach into the billions of dollars (USD). The local insurance industry in China and Hong Kong cited the likelihood of payouts approaching or exceeding USD1 billion.

A major magnitude-7.5 earthquake and tsunami caused catastrophic damage across Indonesia's Sulawesi Island on September 28, leaving an estimated 2,000 people dead and many more missing. A significant tsunami spawned water levels ranging from 3 to 7 meters (10 to 23 feet) in height in the Palu region. Excessive damage resulting from ground shaking and liquefaction additionally caused widespread structural impact. Total economic damage was expected to approach USD1 billion.

Another strong earthquake struck the Japanese island of Hokkaido on September 6. Authorities confirmed 41 fatalities and 680 injuries. The GIAJ cited that 12,279 insurance claims had been filed.

Significant flooding impacted many areas around the globe during the month. In Mexico, more than 300,000 homes were inundated by floodwaters in the hardest-hit state of Sinaloa. Other severe flooding events impacted parts of the United States, West Africa, China, India, North Korea, and, Vietnam.

Outbreaks of severe weather led to bouts of tornado, straight-line wind, or hail damage in parts of the United States and Canada (including an EF3 tornado which touched down in Ontario province). Total combined economic losses were expected to reach into the hundreds of millions (USD).

A series of windstorms kicked off an early start to European Windstorm season. Three storms – Ali, Bronagh, and Fabienne – brought periods of heavy rain and hurricane-force winds to parts of Western, Northern, and Central Europe. A rare “medicane” also impacted Greece.

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
09/04-09/09	TS Gordon	Southeast	2	15,000+	250+ million
09/01-09/15	Flooding	Midwest	2	Hundreds	100s of millions
09/12	HU Olivia	Hawaii	0	Unknown	Negligible
09/14-09/19	HU Florence	Southeast, Mid-Atlantic	53	350,000+	10+ billion
09/20-09/21	Severe Weather	Midwest	0	Hundreds	Millions
09/21-09/24	Severe Weather	Plains, Southeast	1	Thousands	100+ million
09/24-09/26	Severe Weather	Midwest, Northeast	1	Thousands	100+ million

Tropical Storm Gordon made landfall near the Alabama/Mississippi border in the Southeastern United States on September 4, bringing periods of heavy rainfall and gusty winds. At least two fatalities were blamed on the storm. Despite making landfall with 70 mph (110 kph) winds, the scope of wind-related damage was less than initially feared. Most of the damage associated with Gordon and its remnants resulted from heavy rainfall that later spread from the Gulf Coast into the Mississippi Valley and the Midwest. Total economic damage was estimated around USD250 million. Public and private insurers cited payouts nearing USD125 million.

Weeks of torrential rainfall led to continued flooding across central sections of the United States during the first two weeks of September. Among the worst flood damage was cited in the Midwest, where parts of Wisconsin, Iowa, Minnesota, Missouri, and Illinois cited overflowing rivers that inundated numerous communities and prompted road closures. Total economic damage from the overall multi-week stretch was expected to reach well into the hundreds of millions, including USD209 million alone in Wisconsin.

A weakened Hurricane Olivia tracked across the Eastern and Central Pacific Ocean before making a rare landfall in Hawaii on September 12. The system was a 45 mph (75 kph) tropical storm when it made landfall at 9:10 AM local time (19:10 UTC) near Kahakuloa on the island of Maui. Olivia prompted very heavy mountain rainfall and led to tropical storm-force wind gusts that downed trees. However, the scope of damage was less than initially featured. Total economic damage was likely in the millions (USD).

Hurricane Florence made landfall in North Carolina on September 14, leading to widespread coastal and inland damage. At least 53 people were killed directly or indirectly, including 39 alone in North Carolina. Once a Category 4 storm at its peak, Florence made landfall as a Category 1 hurricane with 90 mph (150 kph) winds near Wrightsville Beach, North Carolina. Florence prompted storm surge inundation, very gusty winds, and catastrophic inland flooding. Flood inundation was the overwhelming cause of damage across the hardest-hit areas. States of emergency were declared in North Carolina, South Carolina, Virginia, and Georgia. Total economic losses were expected to exceed USD10 billion, though it will be months until the true scope of the disaster is fully realized. Insured losses were likely settle in the low-digit billions due to low flood insurance penetration.

A powerful storm system tracked across central and eastern sections of the United States on September 20-21, leading to widespread damage in several states. Among the hardest-hit areas came in Minnesota, where six suspected tornadoes touched down. The event additionally spawned nearly baseball-sized hail in parts of Nebraska and straight-line winds gusting beyond 60 mph (95 kph) in Kansas, Iowa, Wisconsin, Illinois, and Indiana. Further storm damage was recorded across the Northeast. Total economic and insured losses were expected to reach well into the millions (USD).

A slow-moving upper level disturbance combined with a surface frontal boundary to spawn showers and thunderstorms that led to several inches of rainfall. Some areas – including the greater Dallas / Fort Worth, TX metro region – cited record rainfall rates on September 21 and 22 as flash flooding inundated many homes and prompted dozens of high-water rescues. The city of Fittstown, OK recorded roughly 14 inches (356 millimeters) of rain on September 21 alone. Severe thunderstorms led to even more wind-related damage in the Plains and Southeast. Total economic and insured losses were each likely to exceed USD100 million.

Strong thunderstorms caused straight-line wind damage in the Midwest on September 24 and 25 (including the greater Chicago, IL metro region) before later tracking into the Northeast and Mid-Atlantic on September 25 and 26. Torrential rains prompted flash flooding in multiple states, though the hardest-hit areas appeared to be in New Jersey, Connecticut, and New York. More than 7.00 inches (177.8 millimeters) of rain fell in some spots, which caused multiple feet of flood inundation into homes, businesses, and vehicles. Total economic damage was likely to well exceed USD100 million.

Remainder of North America (Non-US)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
09/05-09/07	Flooding	Mexico	3	2,500+	53+ million
09/20-09/23	Flooding	Mexico	20	300,000+	100s of millions
09/21	Severe Weather	Canada	0	Thousands	Millions

More than 50 neighborhoods in Mexico's Coahuila state were completely inundated after 222 millimeters (8.74 inches) of rain fell from September 5-7. Much of the damage occurred after the Aguanaval River overflowed its banks in the town of Torreon. State officials noted that the damage cost to infrastructure alone was MXN1 billion (USD53 million), with the overall financial toll even higher.

Several regions of Mexico experienced catastrophic flash flooding between September 20-23, leaving at least 20 people dead or missing. The rain triggered flooding in the states of Sinaloa, Sonora, and Chihuahua. Sinaloa was the worst-hit, with the state Civil Protection services agency indicating that as many as 300,000 homes were damaged. On September 23, a short intense spell of rain caused the Cutio River to overflow its banks in Peribán, Michoacán, destroying at least 40 houses and leaving 12 people dead or missing. Total economic losses were expected to be substantial.

Multiple large tornadoes touched down in the Canadian province of Ontario on September 21, leading to widespread damage in several communities. Meteorologists from Environment Canada confirmed no fewer than six tornadoes – including an EF3, EF2, and EF1 – that caused considerable property damage in the towns of Dunrobin, Ottawa, and Nepean in Ottawa. Additional tornado and convective storm damage was noted in the Quebec community of Gatineau. At the peak of the severe weather outbreak, more than 400,000 power customers lost electricity as damaging winds and hail downed trees and power lines. Total economic and insured losses were estimated to reach well into the millions (USD).

South America

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

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
09/19-09/22	WS Ali & Bronagh	Western & Northern Europe	1	Hundreds	10s of millions
09/23-09/24	WS Fabienne	Central Europe	1	Hundreds	10s of millions
09/29	Severe Weather	Greece	2	2,000+	Millions

Back-to-back windstorms – Ali and Bronagh – impacted Western and Northern Europe between September 19-22. At least one person was killed, and several others were injured. The storm prompted periods of high wind gusts stronger than 95 kph (60 mph) and flooding rains in parts of the United Kingdom, Denmark, Sweden, and Norway, though damage was less than initially feared. Total economic and insured losses were minimally expected to reach into the tens of millions (EUR).

Windstorm Fabienne developed and tracked across Central Europe on September 23-24, leading to one fatality. The system brought periods of high winds and heavy rainfall to parts of Germany, the Czech Republic, Austria, and Poland. Some structural damage was reported and extensive brief power outages occurred, though the scope of damage was not significant. Total economic and insured losses were minimally expected to reach into the tens of millions (EUR).

A rare “medicane”, or “Mediterranean cyclone”, impacted the Peloponnese Peninsula and Crete Island in southern Greece on September 29. The storm spawned significant wave heights, severe winds and abundant rainfall. The storm acquired some indistinct tropical characteristics but remained exclusively extra-tropical. Notable effects of the storm, known locally as Zorbas, included uprooted trees, disrupted transport, and locally intense flash flooding. There were at least 2,000 calls for assistance due to flooded homes, vehicles, and streets. According to the Civil Protection agency, the regions of Corinth and Argos were among the hardest-hit. Total economic losses were expected to reach the millions (EUR).

Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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No significant natural disasters were recorded in the Middle East during the month of September.

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/31-09/20	Flooding	Niger, Ghana, Burkina Faso	39	Hundreds	Unknown
09/01-09/30	Flooding	Nigeria	199	17,816+	275+ million
09/04	Landslide	Ethiopia	12	Unknown	Negligible
09/22	Flooding	Tunisia	5	2,500+	36+ million

Heavy seasonal rains triggered flooding across several countries of West Africa through the first few weeks of September. In Niger, flooding killed four people and displaced 8,000. Heavy rainfall coupled with spillage from Bagre Dam in Burkina Faso and Tono Dam in northern Ghana. In Northern Region, Ghana, the flooding caused at least 35 deaths, lead to collapse of bridges and damaged properties and farm lands.

Widespread flooding impacted parts of Nigeria throughout the first few weeks of September. Government officials cited nearly 200 fatalities and extensive damage. Among the worst damage was cited along the Niger and Benue rivers, which are the main watercourses in Nigeria. Total economic losses in Kogi alone were listed at NGN100 billion (USD275 million).

Heavy rainfall on September 4 triggered a landslide in the Kaffa province of southwestern Ethiopia. The landslide killed at least 12 people and critically injured 4 others. According to the local authorities, an undermined number of houses were buried under the landslide.

A strong thunderstorm hit northern sections of Tunisia on September 22. Intense rainfall resulted in significant regional flooding and the deaths of at least five people. The amount of rainfall – 176 millimeters (6.9 inches) in a matter of hours – was described as the most on record by the Tunisian Institute of Meteorology, dating to 1995. The hardest-hit region was the Cap Bon Peninsula, particularly the towns of Nabeul, Hammamet, Korbous, and Beni Khalled. At least 2,500 homes damaged, and local officials cited that damage would be in excess of TND100 million (USD36 million).

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/01-10/01	Drought	India	N/A	N/A	1.1+ billion
08/29-09/05	Flooding	China, Vietnam	38	4,910+	790+ million
08/29-09/07	Flooding	North Korea	150	12,000+	Unknown
09/01-09/06	Flooding	India	46	160+	10s of millions
09/03	Earthquake	China	0	2,630	5.2+ million
09/04-09/05	TY Jebi	Japan	17	486,000+	Billions
09/06	Earthquake	Japan	41	1,200+	1.0+ billion
09/08-09/19	Winter Weather	China	0	N/A	23+ million
09/15-09/18	STY Mangkhut	N. Mariana Islands, Philippines, China, Hong Kong	102	250,000+	Billions
09/23-09/24	Flooding	India	25	Hundreds	Millions
09/28	Earthquake	Indonesia	2,000+	70,000+	100s of Millions+

Between August 29-September 5, heavy rainfall triggered landslides and flash floods across northern Vietnam and various parts of China. The inclement weather left at least 20 people dead or missing in Vietnam and damaged more than 1,200 homes in several northern provinces. In China, no fewer than 3,800 houses were damaged, and 18 people were killed. Total economic losses in China were estimated to minimally reach CNY5.4 billion (USD790 million).

Heavy rain in North Korea during the last few days of August into early September triggered severe floods across North and South Hwanghae and Kangwon provinces with stations recording between 120-300 millimeters (4.7-11.8 inches) of rainfall in under 24 hours on August 29 alone. According to the UN Office for the Coordination of Humanitarian Affairs (OCHA), 76 people died and 75 more were missing. The floods reportedly damaged or destroyed roughly 12,000 buildings and displaced 44,000 people.

Between September 1-6, floods triggered by summer monsoon rains affected nearly 300 villages in the state of Uttar Pradesh in India. More than 610 homes were destroyed, and at least 46 people were killed.

Two shallow earthquakes of magnitudes 5.0 and 4.7 occurred near Arzak, China on September 3 around 22:00 UTC within minutes of each other. According to local reports, the tremors damaged no fewer than 2,630 homes in Xinjiang Uygur Autonomous Region. Total economic losses were listed at CNY36 million (USD5.2 million).

Typhoon Jebi made landfall in Western Japan on September 4 with 165 kph (100 mph) winds – using the Japan Meteorological Agency’s (JMA) 10-minute sustained wind speed average – and prompted widespread wind and flood damage to many prefectures. At least 17 fatalities and more than 600 injuries occurred. Data from Japan’s Fire and Disaster Management Agency officially cited more than 1,100 homes damaged or destroyed, though the final total was much higher. According to the JMA, Jebi became the strongest typhoon to strike the Japanese mainland since 1993. Total economic losses were expected to reach well into the billions of dollars (USD). The General Insurance Association of Japan (GIAJ) cited that nearly 486,000 insurance claims had been filed. A multi-billion-dollar payout is expected.

A magnitude-6.6 earthquake struck the Japanese island of Hokkaido in the early morning hours of September 6. Shaking incurred widespread structural and infrastructure damage across the island, with the extensive cracking reported in numerous areas. Significant impacts also resulted from landslides, which impacted a large number of structures. Authorities confirmed 41 fatalities and 680 injuries.

Total economic losses were anticipated to exceed USD1 billion. Direct losses to the farming, forestry, fishing, and tourism industries alone were expected to reach JPY68.9 billion (USD605 million). The GIAJ cited that 12,279 insurance claims had been filed.

At least 86 administrative divisions across 23 districts in the state of Karnataka, India were declared to be in a drought after receiving minimal rainfall in the current monsoon season. Most of the drought-hit areas were in Northern Karnataka. Nearly 1.2 million hectares (3.0 million acres) of crops were lost due to the drought, which resulted in a financial cost of INR80 billion (USD1.1 billion).

A spell of cold temperatures swept across Heilongjiang and Inner Mongolia in northeastern China from September 8-19. The cold snap caused significant damage to soybeans and corn amongst other crops, with nearly 365,000 hectares (902,000 acres) directly impacted. Direct economic losses were estimated at CNY157 million (USD23 million).

Super Typhoon Mangkhut brought widespread wind, storm surge, and flooding impacts from the Northern Mariana Islands to Southeast Asia from September 10-18. At least 102 people were killed. The storm initially left damage in parts of Rota and Guam before crossing the Pacific Ocean and making multiple landfalls in the Philippines (Category 5) and China (Category 2). In the Philippines, the storm damaged more than 210,000 homes and caused PHP33.9 billion (USD626 million) in damage to local infrastructure and agriculture alone on Luzon Island. In China, Mangkhut damaged thousands of homes and 174,400 hectares (431,000 acres) of crops. Total economic damage was listed at CNY5.3 billion (USD770 million), with 43,510 insurance claims filed in the city of Shenzhen that carry an anticipated payout of CNY1.17 billion (USD170 million). The storm also caused significant damage and disruption in Hong Kong and Macau. Total insured losses, including payouts from physical damage and business interruption to casinos in Macau, was expected to approach or exceed USD1 billion.

Several states in northwest India received significant rainfall between September 23-24. The inclement weather triggered flash flooding and landslides. At least 25 deaths occurred and extensive damage to infrastructure and property was reported. The states of Punjab and Haryana additionally suffered crop damage.

A major earthquake and tsunami caused catastrophic damage across Indonesia's Sulawesi Island on September 28, leaving roughly 2,000 people dead and many more missing. Thousands of others were injured. The magnitude-7.5 tremor occurred at 6:02 PM local time (10:02 UTC) with an epicenter just north of Palu, Indonesia. The relatively shallow depth of the strike-slip temblor spawned a significant tsunami that spawned water levels ranging from 3 to 7 meters (10 to 23 feet) in height in the towns of Palu, Donggala, and Mamuju. Excessive damage resulting from ground shaking and extensive liquefaction additionally caused widespread structural impact across the epicentral region. Total economic damage was expected to approach USD1 billion. Insured losses were likely to be negligible due to very low insurance penetration.

Oceania (Australia, New Zealand, South Pacific Islands)

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

Appendix

Updated 2018 Data: January-August

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	Nationwide	N/A	N/A	2.0+ billion
01/03-01/05	Winter Weather	Eastern & Central U.S.	22	60,000+	1.1+ billion
01/08-01/09	Flooding	California	21	6,500+	900+ million
01/14-01/17	Winter Weather	Plains, Midwest, Northeast, Southeast	16	Thousands	Millions
01/21-01/24	Winter Weather	Plains, Midwest	10	Hundreds	Millions
02/03-02/07	Winter Weather	Plains, Midwest, Northeast	7	Thousands	50+ million
02/07-02/10	Winter Weather	Plains, Midwest, Northeast	5	Thousands	50+ million
02/19-02/22	Flooding	Plains, Midwest, Southeast	10	25,000+	400+ million
02/23-02/27	Severe Weather	Plains, Midwest, Southeast	5	15,000+	175+ million
03/01-03/03	Winter Weather	Northeast	9	325,000+	2.3+ billion
03/07-03/08	Winter Weather	Northeast	1	60,000+	525+ million
03/12-03/15	Winter Weather	Northeast	0	Thousands	Millions
03/18-03/21	Severe Weather	Plains, Southeast, Northeast	0	100,000+	1.5+ billion
03/21-03/22	Flooding	California	0	Hundreds	Millions
04/03-04/04	Severe Weather	Plains, Midwest, Southeast	1	40,000+	335+ million
04/06-04/07	Severe Weather	Texas, Louisiana, Mississippi	0	80,000+	825+ million
04/07	Severe Weather	Idaho	0	12,500+	150+ million
04/13-04/17	Severe Weather	Plains, Midwest, Southeast, Northeast	6	110,000+	1.3+ billion
04/14-04/15	Flooding	Hawaii	0	1,000+	125+ million
04/17-04/18	Severe Weather	Rockies, Plains	0	20,000+	135+ million
04/22-04/23	Severe Weather	Southeast	0	Thousands	Millions
04/28-05/05	Severe Weather	Plains, Midwest	0	125,000+	1.4+ billion
05/03-07/30	Volcano	Hawaii	0	Hundreds+	Millions
05/12-05/16	Severe Weather	Rockies, Plains, Midwest, Northeast	5	115,000+	1.45+ billion
05/13-05/15	Flooding	Florida	0	Hundreds	Millions
05/19-05/20	Severe Weather	Plains, Midwest	0	30,000+	500+ million
05/28-06/01	Severe Weather	Rockies, Plains, Midwest, Mid-Atlantic	1	45,000+	525+ million
05/27-05/28	Flooding	Maryland	1	5,000+	100+ million
05/27-05/30	STS Alberto	Southeast, Midwest	5	10,000+	125+ million
06/03-06/07	Severe Weather	Plains, Midwest, Southeast	0	95,000+	1.1+ billion
06/11-06/13	Severe Weather	Rockies, Plains	0	55,000+	950+ million
06/13-06/14	Severe Weather	Northeast	0	2,000+	75+ million
06/17-06/21	Severe Weather	Rockies, Plains, Midwest	3	190,000+	2.4+ billion
06/19-06/21	Flooding	Texas	0	11,000+	225+ million
06/23-06/26	Severe Weather	Central/Eastern U.S.	0	20,000+	195+ million
06/23-07/10	Wildfires	West	0	Hundreds+	100s of Millions
06/27-06/29	Severe Weather	Plains, Midwest, Southeast	1	15,000+	150+ million
06/29-07/04	Severe Weather	Plains, Midwest	1	20,000+	250+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/01-07/31	Wildfire	Western U.S.	1	Hundreds	100s of Millions
07/08-07/10	Flooding	Arizona	0	15,000+	200+ million
07/19-07/22	Severe Weather	Plains, Midwest, Southeast	18	60,000+	600+ million
07/21-07/26	Flooding	Northeast, Mid-Atlantic, Southeast	1	30,000+	450+ million
07/22-07/24	Severe Weather	Colorado	0	12,500+	140+ million
07/26-07/29	Severe Weather	Rockies, Plains, Southwest	0	65,000+	890+ million
07/24-08/01	Wildfires	California	6	Thousands	1.0+ billion
08/01-08/31	Wildfire	California	14	15,000+	1.3+ billion
08/06-08/08	Severe Weather	Rockies, Plains	0	65,000+	800+ million
08/11-08/15	Flooding	Northeast, Mid-Atlantic	0	10,000+	400+ million
08/14-08/16	Severe Weather	Oklahoma, Texas	0	Hundreds	Millions
08/20	Flooding	Wisconsin	0	2,000+	108+ million
08/22-08/26	HU Lane	Hawaii	0	Thousands	100s of Millions
08/27-08/29	Severe Weather	Midwest	0	35,000+	725+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/11-01/14	Flooding	Canada	0	5,000+	90+ million
02/16	Earthquake	Mexico	0	18,000+	Millions
02/19-02/22	Flooding	Canada	0	Thousands	75+ million
04/04-04/05	Winter Weather	Canada	0	15,000+	115+ million
04/14-04/17	Winter Weather	Canada	0	15,000+	275+ million
04/26-05/17	Flooding	Canada	0	Hundreds	10s of Millions
05/04-05/05	Severe Weather	Canada	3	65,000+	425+ million
05/26-05/29	STS Alberto	Cuba	7	Thousands	Millions+
06/03	Volcano	Guatemala	122	Thousands	Millions
06/13	Severe Weather	Canada	0	Unknown	10s of Millions
06/14	Severe Weather	Canada	0	10,000+	110+ million
06/28-06/30	Severe Weather	Canada	0	Thousands	Millions
07/01-07/31	Drought	Central America	0	Unknown	200+ million
07/07-07/10	Severe Weather	Canada	0	4,000+	45+ million
07/09-07/11	HU Beryl (Remnants)	Puerto Rico, Hispaniola	0	2,000+	Millions
07/13-07/14	Severe Weather	Canada	0	Thousands	Millions
08/02	Severe Weather	Canada	0	15,000+	100+ million
08/07-08/08	Flooding	Canada	0	4,500+	150+ million

South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/14	Earthquake	Peru	2	2,541+	Millions
01/29-02/08	Flooding	Bolivia, Argentina	7	Thousands	138+ million
02/09	Severe Weather	Argentina	0	Thousands	Millions
02/15-02/21	Flooding	Brazil	4	Thousands	10s of Millions
01/01-03/31	Drought	Uruguay	N/A	N/A	500+ million
01/01-03/31	Drought	Argentina	N/A	N/A	3.4+ billion
03/20-03/21	Flooding	Brazil	3	Thousands	43+ million
03/12-04/17	Severe Weather	Colombia	14	Unknown	Millions
06/12	Severe Weather	Brazil	2	2,630+	Millions

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/04	WS Eleanor & Carmen	Western & Central Europe	7	200,000+	1.3+ billion
01/06-01/07	Severe Weather	Spain	0	Hundreds	60+ million
01/08	Earthquake	Netherlands	0	3,000+	Millions
01/18	WS Friederike	Western & Central Europe	13	100,000+	2.75+ billion
01/20-02/01	Flooding	France	0	30,000+	500+ million
02/23-03/02	Winter Weather	Western, Central & Eastern EU	88	Thousands	100s of Millions
03/09-03/14	WS Felix & Gisele	Portugal, Spain	0	Hundreds	10s of Millions
03/28	Flooding	Russia	2	1224	Unknown
03/25-04/05	Flooding	Greece, Turkey, Bulgaria	15	Thousands	Millions
04/29	Severe Weather	Germany, France, Belgium	0	Thousands	10s of Millions
05/10-05/16	Severe Weather	Central Europe	0	Thousands	10s of Million
05/25-05/31	Severe Weather	Western & Central Europe	1	30,000+	500+ million
06/01-06/07	Severe Weather	Central & Western Europe	2	Thousands	150+ million
06/08-06/13	Severe Weather	Central, Western & SE Europe	6	Thousands	100s of Millions
06/28-06/29	Flooding	Romania, Bulgaria, Ukraine	3	2,000+	50+ million
05/01-08/31	Drought	Northern & Central Europe	0	Unknown	7.5+ billion
07/03-07/05	Severe Weather	France, Germany, Italy	0	Hundreds	10s of millions
07/08-07/25	Wildfire	Sweden	0	Unknown	102+ million
07/15	Severe Weather	France, Germany	0	Hundreds	Millions
07/18-07/19	Flooding	Poland, Slovakia	0	Hundreds	50+ million
07/23-07/24	Wildfire	Greece	92+	1,645+	10s of millions
08/03-08/04	Wildfire, Heatwave	Portugal, Spain	1	Hundreds	25+ million
08/20	Flooding	Italy	10	N/A	N/A
08/23-08/25	Severe Weather	Central Europe	0	Thousands	Millions

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-05/31	Drought	South Africa	N/A	N/A	1.2+ billion
01/03-01/07	Flooding	Democratic Republic of Congo	51	465	Millions
01/12-01/13	CY Ava	Madagascar	73	4,800+	Millions
01/15-01/18	CY Berguitta	Mauritius, La Reunion	0	Thousands	10s of Millions
01/16-01/22	Flooding	Mozambique	11	15,000+	5.1+ million
02/07-02/09	Flooding	Malawi	1	2,000+	Unknown
02/22-03/07	Flooding	Angola, Malawi, Rwanda	8	6,500+	Millions
03/17-03/18	CY Eliakim	Madagascar	21	17,228+	Millions
03/22-03/23	Flooding	South Africa, Lesotho	7	Thousands	Millions
01/01-05/31	Flooding	Rwanda	134	6,000+	28+ million
03/14-05/31	Flooding	Kenya	226	Thousands	350+ million
03/14-05/31	Flooding	Uganda	N/A	Thousands	150+ million
04/01-05/31	Flooding	Somalia	5	Thousands	80+ million
04/14-04/16	Flooding	Tanzania	15	Hundreds	Unknown
04/14-04/17	Flooding	Ethiopia	2	Thousands	Millions
04/24	TS Fakir	Réunion	2	Hundreds	18+ million
05/19	TS Sagar	Somalia, Djibouti, Yemen	55	Thousands	Millions
05/28	Flooding	Ethiopia	23	Unknown	Unknown
06/18-06/29	Flooding	Ivory Coast, Ghana, Nigeria	38	Thousands	Millions
07/13-07/16	Flooding	Nigeria	71	600+	Unknown
07/01-08/31	Flooding	Niger	22	18,140+	Millions
07/15-08/15	Flooding	Sudan	23	8,900+	Millions

Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/19-01/20	Winter Weather	Lebanon	15	N/A	Negligible
02/16-02/18	Flooding	Turkey, Iran, Iraq, Lebanon	3	Hundreds	Millions
03/07	Earthquake	Iran	0	5,500+	Millions
03/24	Severe Weather	Turkey	0	Thousands	Millions
04/25-04/26	Flooding	Israel	11	Hundreds	Millions
05/17-05/21	Flooding	Tajikistan	6	1,145+	Millions
05/23-05/27	TS Mekunu	Yemen, Oman, Saudi Arabia	30	5,000+	400+ million
07/08	Landslide	Turkey	24	N/A	Unknown
07/22	Earthquake	Iran	0	1,000+	Millions
08/26	Earthquake	Iran	2	2,600+	Millions

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/07	Winter Weather	India, Nepal	94	N/A	Negligible
01/02-01/05	Winter Weather	China	21	3,500+	854+ million
01/13-01/17	Flooding	Philippines	11	1,900+	Millions
01/21-01/25	Winter Weather	Japan, China	5	Unknown	Millions
01/23	Earthquake	Indonesia	0	9,291+	Millions
01/24-01/29	Winter Weather	China	2	2,500+	1.1+ billion
02/03-02/12	Flooding	Malaysia	0	Hundreds	Millions
02/05-02/06	Flooding	Indonesia	4	7,228+	Millions
02/06	Earthquake	Taiwan	17	Thousands	100+ million
02/12-02/14	TS Sanba	Philippines	0	2,000+	<10 million
02/21-02/23	Flooding	Indonesia	20	20,000+	Millions
03/03	Severe Weather	China	14	59,000+	147+ million
03/10	Wildfire	India	17	N/A	N/A
03/15-03/18	Severe Weather	China	5	2,000+	50+ million
03/22-03/26	Flooding	Indonesia	3	1,092+	Unknown
03/29	Severe Weather	China	0	200+	30+ million
04/02-04/18	Winter Weather	China	0	Thousands	1.5+ billion
04/11	Severe Weather	India	42	Thousands	100+ million
04/17	Severe Weather	India	18	4,446+	100+ million
04/19-04/25	Severe Weather	China	1	2,200+	91+ million
04/29-04/30	Severe Weather	Bangladesh	33	Unknown	Unknown
05/02-05/03	Severe Weather	India	143	Thousands	24+ Million
05/06-05/09	Severe Weather	India	32	4,200+	Millions
05/07-05/15	Flooding	Afghanistan, Pakistan	78	Thousands	Millions
05/07-05/14	Flooding	China	2	2,000+	31+ million
05/12-05/17	Severe Weather	China	2	2,000+	67+ Million
05/13-05/16	Severe Weather	India	95	Hundreds	Millions+
05/17-05/20	Flooding	India	6	2,422+	10+ Million
05/28-05/29	Severe Weather	India	54	Thousands	Millions
05/28	Earthquake	China	0	15,900+	7+ Million
05/29-05/31	Flooding	India	12	1,000+	Millions+
05/29-05/30	Severe Weather	Myanmar	5	1,400+	Unknown
05/07-07/10	Flooding	China	108	150,000+	1.3+ billion
06/01-06/30	Drought	China	N/A	Unknown	91+ million
06/01-06/06	Severe Weather	India	42	Hundreds	Millions
06/06-06/07	Severe Weather	China	2	800+	31+ Million
06/02-06/07	TS Ewinia	Vietnam, China	15	5,400+	573+ Million
06/09-06/12	Severe Weather	China	0	Thousands	91+ Million
06/08-06/12	Severe Weather	India	61	16,000+	100+ million
06/05-06/14	Flooding	Bangladesh, Myanmar	26	1,540+	Unknown
06/12-06/21	Severe Weather	China	2	12,000+	317+ million
06/18	Earthquake	Japan	4	135,000+	2.25+ billion
06/23-06/27	Flooding	Vietnam	33	3,776 +	23+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/24-07/03	Flooding	India	52	Hundreds	Millions
06/28-07/05	Flooding	China	11	12,000+	278+ million
06/29-07/03	Severe Weather	China	5	8,000+	157+ million
07/02-07/03	TY Prapiroon	Japan, South Korea	4	Hundreds	10s of Millions
07/05-07/08	Flooding	Japan	230	65,000+	7.0+ billion
07/01-07/25	Heatwave	Japan, Korea, China	150+	N/A	Unknown
07/01-07/03	Flooding	Pakistan, India, Nepal	21	Hundreds	Millions
07/07-07/11	Severe Weather	China	1	300+	33+ million
07/08-07/25	Flooding	Russia	0	6,000+	16+ million
07/10-07/11	Flooding	China	19	18,300+	580+ million
07/10-07/12	STY Maria	China, Taiwan	2	15,000+	490+ million
07/13-07/20	Flooding	China	0	500+	53+ million
07/17-07/24	TS Sonh-Tinh	Vietnam, China, Laos	34	32,000+	235+ million
07/17-07/31	Flooding	Philippines	13	5,050+	88+ million
07/17-07/26	Flooding	Laos, Cambodia	150	2,000+	Millions
07/20-07/24	Flooding	India	20	8,300+	Unknown
07/22-07/25	TS Ampil	China	1	6,000+	175+ million
07/22-07/25	Severe Weather	China	6	15,000+	295+ million
07/27-08/03	TY Jongdari	Japan, China	0	Thousands	100+ Million
07/27-07/29	Flooding	India	33	300+	Unknown
07/28	Earthquake	Indonesia	17	15,000+	23+ million
07/28-07/30	Flooding	Myanmar, Thailand	19	Thousands	Unknown
08/05, 08/09	Earthquake	Indonesia	560	90,000+	528+ million
08/02-08/06	Flooding	India	5	1,100+	Millions
08/03-08/08	Severe Weather	China	6	1,000+	39+ million
08/07-08/20	Flooding	India	500	30,000+	5.5+ billion
08/13	Earthquake	China	0	6,000+	Millions
08/09-08/15	TS Yagi	Philippines, China	7	Thousands	74+ million
08/13-08/19	TS Bebinca	China, Vietnam	16	8,000+	236+ million
08/16-08/18	TY Rumbia	China	22	15,000+	3.13+ billion
08/19	Earthquake	Indonesia	12	Thousands	10s of millions
08/19-08/23	Flooding	China	5	3,100+	33+ million
08/23-08/25	TY Soulik	Japan, Korea Peninsula, China, Russia	71	2,000+	81+ million
08/23-08/26	TY Cimaron	Japan	0	Hundreds	Millions
08/23-08/26	Flooding	Taiwan	7	Hundreds	34+ million
08/24	Flooding	Afghanistan	11	Hundreds	Millions
08/28-08/29	Flooding	South Korea	1	Hundreds	Millions

Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-08/01	Drought	Australia	N/A	Thousands	1.2+ billion
01/04-01/07	Flooding	New Zealand	0	3,600+	50+ million
01/31-02/02	Flooding (Fehi)	New Zealand	0	Thousands	67+ million
02/09-02/20	CY Gita	Tonga, Fiji, Samoa, New Zealand	1	10,000+	225+ million
02/18-02/20	TS Kelvin	Australia	0	4,000+	25+ million
02/26	Earthquake	Papua New Guinea	160	Thousands	190+ million
03/03	CY Hola	Vanuatu, N. Caledonia, NZ	3	Unknown	Unknown
03/05-03/08	Earthquake	Papua New Guinea	36	Unknown	Millions
03/09-03/11	Flooding	Australia	0	2,000+	40+ million
03/17-03/19	Wildfire	Australia	0	1,039+	90+ million
03/17	CY Marcus	Australia	0	6,218+	75+ million
03/24-03/27	CY Nora	Australia	0	2,000+	25+ million
03/31	CY Josie	Fiji	6	Unknown	10+ million
04/10	CY Keni	Fiji	0	804+	
04/10-04/11	Severe Weather	New Zealand	0	12,523+	87+ million
04/27-04/29	Flooding	New Zealand	0	2,000+	25+ million
05/10-05/14	Flooding	Australia	0	8,800+	130+ million
06/11	Flooding	New Zealand	0	Unknown	10s of 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 obtained from various public media sources, including news websites, publications from insurance companies, financial institution press releases and official government agencies. Economic loss totals include any available insured loss estimates, which can be found in the corresponding event text. Specific events may include modeled loss estimates determined from utilizing Impact Forecasting's suite of catastrophe model products.

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