



Global Catastrophe Recap

August 2018

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Executive Summary

- Catastrophic seasonal monsoon floods inundate parts of India; USD4+ billion economic toll in Kerala
- More than 560 killed in series of destructive earthquakes on Indonesia's Lombok Island
- Severe weather spawns more damage as 2018 U.S. insurance bill tops USD11 billion for the peril

Significant monsoonal flooding swept across Kerala state in India throughout the month of August. More than 500 people were left dead or missing as the state's worst flooding since 1924 caused catastrophic damage. Government officials officially listed more than 23,000 homes damaged or destroyed, with even greater impacts to the commercial sector, agriculture, and infrastructure. Total economic losses were tentatively estimated at upwards of INR300 billion (USD4.25 billion), as direct damage and business interruption costs were still being tallied. The General Insurance Companies of India cited that more than 13,000 insurance claims had already been filed with a payout of INR12.4 billion (USD175 million). This total was expected to rise, with the GIC suggesting as high as INR45 billion (USD635 million).

Further notable flooding events were recorded in the United States; particularly in the Northeast, Mid-Atlantic, and Wisconsin. Deadly floods were also triggered by seasonal rains in Sub-Saharan Africa; notably in Sudan and Niger. Additional events occurred in Italy, Taiwan, Afghanistan and South Korea.

Series of powerful earthquakes impacted Indonesia's Lombok Island. At least four significant tremors occurred since the end of July: M6.4 (July 29), M6.9 (August 5), M6.3 (August 19) and M6.9 (August 19). The latest data from the country's National Disaster Management Agency indicated that at least 560 people had been killed in Lombok since a series of strong tremors began, majority of whom were killed due to the strongest tremor on August 5. More than 83,300 homes were damaged or destroyed. The total economic cost resulting from the earthquakes was listed at IDR7.7 trillion (USD528 million).

Other notable earthquakes were recorded in Iran and China.

Multiple outbreaks of severe weather swept across the United States during the month of August. The most extensive event occurred in the Rockies, where hail larger than the size of softballs pelted parts of Colorado. Additional outbreaks led to further hail, straight-line wind, isolated tornado, and flash flood damage in the Plains, Midwest, and the Northeast. Total economic losses were anticipated to approach USD2 billion, with public and private insurers covering roughly three-quarters of the cost.

Several countries along the Western Pacific coastline were affected by multiple tropical cyclones. In mid-August, tropical storms Yagi and Bebinca spawned flooding and landslides across several Chinese provinces, with an aggregated loss estimated at CNY1.98 billion (USD243 million). Widespread flooding later ensued in Eastern China due to Tropical Storm Rumbia, whose impact was later estimated at minimally CNY4.8 billion (USD709 million). Typhoon Soulik generated notable flooding in South Korea, China and Russia. Typhoon Cimaron also struck the Japanese mainland as Category 1 storm.

Hurricane Lane approached the Hawaiian Islands without making landfall, but triggered flooding and landslides due to significant mountain-enhanced rainfall. Damage was noted to infrastructure and hundreds of properties. Total economic losses were expected to be in the hundreds of millions.

Major wildfires continued to burn in California as insured losses are anticipated to approach the billion-dollar threshold given the number of structures and vehicles affected. Further wildfires burned in Europe; particularly in the Iberian Peninsula during the culmination of recent heatwaves.

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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	Thousands	100+ million

Major wildfires continued to burn across California throughout the month of August, as officials further assessed the damage footprint. The two primary fires – the Carr Fire and the Mendocino Complex Fire (consisting of the Ranch and River fires) – combined to burn more roughly 690,000 acres (279,000 hectares) of land. The Mendocino Complex Fire became the largest fire in modern history in California, based on official Cal Fire data beginning in 1932. The Carr Fire remained the sixth-most destructive fire on record in the state, having destroyed 1,604 structures (1,079 homes). Total economic damage – including physical damage and firefighting costs – was beyond USD1 billion. Combined insured losses from the fires were approach the billion-dollar threshold.

Consecutive days of severe thunderstorms prompted significant hail damage across parts of the Rockies and Plains from August 6-8. Among the hardest-hit areas came in Colorado, where at least 18 people were injured near Colorado Springs after softball-sized hail struck on August 6. Similar-sized hail was noted in parts of Nebraska and Wyoming. Widespread extensive damage to homes, businesses, vehicles, and agriculture was reported. Total economic losses were estimated to approach USD800 million. Public and private insurers anticipated insurance claims nearing USD615 million.

Multiple days of heavy rainfall and severe thunderstorms spawned widespread flooding and pockets of convective storm damage across parts of the Northeast and Mid-Atlantic from August 11-15. No fatalities were reported, though dozens of high water rescues were required as flash floods stranded residents in their homes or vehicles. Among the hardest-hit areas included portions of Pennsylvania, New Jersey, Virginia, Maryland, New York, and Massachusetts. Total economic losses estimated around USD400 million. Public and private insurers were anticipated to pay out more than USD200 million in claims.

Powerful thunderstorms swept across central sections of the country from August 14-16, leading to widespread hail, wind and flash flood damage. The most notable damage occurred in Oklahoma, where an individual supercell spawned more than 5.00 inches (127 millimeters) of rainfall in a matter of hours on August 14 in Oklahoma City. That was the highest one-day rainfall total on record for the month of August in the city. Elsewhere, large hail and damaging winds were noted in parts of Texas, Oklahoma, Kansas, Nebraska, and Missouri. Isolated tornadoes were reported in Iowa, Illinois, and Kansas. Total economic and insured losses were estimated to reach into the millions (USD).

A slow-moving area of low pressure spawned record rainfall in parts of Wisconsin on August 20. Radar-estimates of 11 to 15 inches (279 to 381 millimeters) of rain was noted in Dane County – an area just to the west of the city of Madison. Substantial flooding resulted as many homes and vehicles were inundated by high water levels. Some of the worst flood damage occurred in areas along the Black Earth River as roads and bridges were partially damaged or washed away. Total economic damage was minimally estimated by Dane County officials at USD108 million.

Hurricane Lane skirted the Hawaiian Islands from August 22-26, bringing torrential rainfall that spawned flash flooding and landslides. No serious injuries or fatalities were reported. The impacts from Lane were less than initially feared as the storm's wind field rapidly decayed as it neared the archipelago. The worst damage was noted in Hawaii County, where select spots in mountainous areas recorded more than 50.00 inches (1,270 millimeters) of rain in a four-day span. The city of Hilo established a four-day rainfall record for the site, dating to 1949: 36.76 inches (934 millimeters). Additional flood damage occurred in portions of Maui County. While there were reports of property and automobile damage in Hawaii, most impacts were attributable to infrastructure. Total economic losses were expected in the hundreds of millions.

Consecutive days of severe thunderstorms led to widespread damage across multiple states in the Midwest from August 27-29. The most significant impacts resulted from damaging straight-line winds gusting beyond 80 mph (130 kph), hail larger than the size of baseballs, and excessive rainfall that spawned flash floods. Parts of Iowa, Minnesota, Wisconsin, Illinois, and Michigan were hardest-hit by the convective storms, though several Wisconsin counties endured significant riverine and flash flooding. Total economic and insured losses were likely to individually exceed USD100 million.

Remainder of North America (Non-US)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/02	Severe Weather	Canada	0	15,000+	100+ million
08/07-08/08	Flooding	Canada	0	4,500+	150+ million

Powerful thunderstorms swept through parts of the Canadian prairies on August 2, leading to extensive hail damage. Parts of Alberta, Saskatchewan, and Manitoba were impacted. Among the hardest-hit areas included the greater Calgary metro region, where Environment Canada reported that up to golf ball-sized hail had occurred. Initial reports indicated widespread damage to vehicles (broken windows and dented roofs) and structures (dented roofs and siding) in southern sections of Calgary. Other areas of southern Alberta noted straight-line winds topping 100 kph (65 mph). Total economic losses were expected to near USD100 million, while insurers paid out more than USD70 million in claims.

A severe thunderstorm spawned excessive rainfall and flooding in the Toronto metro region on August 7-8. Flash floods led to significant water inundation in businesses and residential properties all around the region, notably due to flooding in basements. Vehicle damage was widespread on local roadways as cars were left stranded. Total economic damage was anticipated to exceed USD150 million. Preliminary insured losses exceeded USD65 million.

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 August.

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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

The beginning of August was marked by the culmination of recent heatwaves, which have been affecting Europe throughout the month of July. The highest temperature of 46.8°C (116.2°F) was measured in Portugal. The stable meteorological pattern began to change as multiple rounds of strong storms brought change to the western part of the continent. Elevated fire hazard resulted in several large wildfires burning across the Iberian Peninsula. The largest was in Monchique, Portugal and caused notable economic losses.

On August 20, heavy rain in south-west Italy triggered a flash flood in the Raganello Gorge in Calabria. At least 10 hikers were reportedly killed by the flood and several more were suspected missing. Emergency services rescued 23 people were rescued, many of whom were severely injured. Due to lack of property damage, the event is not expected to incur significant economic loss.

Severe thunderstorms impacted parts of Germany, Austria, Czech Republic, Slovakia, and Poland from August 23-25. The pattern change involved locally intense rainfall and strong wind gusts. Among the hardest-hit areas came in Austria's Glemmtal region, where flash flooding incurred property damage. Some wind-related damage was reported from Poland, particularly the Podlaskie region, where thousands of people were left without power. Total economic and insured losses were likely to be in the millions (EUR).

Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/26	Earthquake	Iran	2	2,600+	Millions

A strong, magnitude-6.0 earthquake rattled the Kermanshah Province in western Iran during the morning hours of August 26 local time. The relatively shallow tremor left at least two people dead and 255 others injured. According to the state-owned Islamic Republic News Agency (IRNA), 2,600 homes were damaged, of which 600 were destroyed completely.

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/01-08/31	Flooding	Niger	22	18,140+	Millions
07/15-08/15	Flooding	Sudan	23	8,900+	Millions

Prolonged seasonal rainfall prompted widespread flooding across Niger throughout July and August, leaving at least 36 people dead. The total number of people affected by the seasonal flood was 130,000. According to local sources, southern regions of Maradi and Diffa and Agadez are among the most affected. Officials noted 7,212 homes destroyed, along with 8,200 hectares (20,250 acres) of crops.

Seasonal rains in Northern Sudan resulted in notable economic damage and loss of life throughout July and August. The situation was particularly severe in North Darfur, North Kordofan, Red Sea State, and Kassala. According to European Civil Protection and Humanitarian Aid Operations, at least 70,000 people were affected in total, with 23 people killed and another 61 injured. At least 8,900 families were reported to be displaced.

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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+	4.6+ 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+	706+ million
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, South Korea, China, Russia	1	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

Powerful earthquakes continued to strike the Lombok region of Indonesia in August. At least four temblors registering greater than magnitude-6.0 since July 28 (UTC): M6.4 (July 29), M6.9 (August 5), M6.3 (August 19), M6.9 (August 19). Data from the country's National Disaster Management Agency indicated that at least 560 people had been killed in Lombok since the series of strong tremors and aftershocks began. More than 83,300 homes were damaged or destroyed in total, leaving more than 396,000 people displaced. Thousands of additional structures, including schools, businesses, and public health facilities, were also damaged. The total economic cost resulting from the earthquakes was listed at IDR7.7 trillion (USD528 million).

Heavy rainfall impacted the Indian states of Assam and West Bengal from August 2-6, leading to three deaths. The monsoonal rains left thousands of homes damaged or destroyed and more than 5,000 hectares (12,000 acres) of cropland inundated. Total economic losses were estimated in the millions (USD).

Severe convective weather affected parts of China from August 3-8, killing at least six people. Among the hardest-hit provincial areas were Inner Mongolia, Heilongjiang, Gansu, Hebei, Shanxi, Shaanxi, Qinghai, and Ningxia as large hail and flooding occurred. More than 1,000 homes were damaged in addition to vast areas of agricultural land. The total combined economic cost was CNY268 million (USD39 million).

Significant monsoonal flooding swept across Kerala state in India throughout the month of August. More than 500 people were left dead or missing as the state's worst flooding since 1924 caused catastrophic damage. Government officials officially listed more than 23,000 homes damaged or destroyed. Substantial impacts were recorded to local agriculture, including an unofficial report of 906,000 hectares (2.24 million acres) of cropland inundated. Nearly 6,400 kilometers (4,000 miles) of roadway segments and 134 bridges were washed away or damaged. Total economic losses were tentatively estimated at upwards of INR300 billion (USD4.25 billion), as direct damage and business interruption costs were still being tallied. The General Insurance Companies of India cited that more than 13,000 insurance claims had already been filed with a payout of INR12.4 billion (USD175 million).

This total was expected to rise, with the GIC suggesting as high as INR45 billion (USD635 million). Additional monsoon flooding also left more than a dozen casualties in Karnataka state. Economic losses were estimated at INR20-30 billion (USD300-400 million).

Separate magnitude-5.0 earthquakes struck China's Yunnan Province on August 13-14. The tremors left widespread damage in areas near Fuxian Lake and Tonghai County as nearly 6,000 homes were damaged or destroyed. At least 24 people were injured.

Tropical Storm Yagi made landfall in China's Zhejiang Province between Wenzhou and Xiangshan in the evening hours of August 12 bringing heavy rainfall across Zhejiang, Anhui, Jiangsu, and Shandong provinces. At least two people were killed and 800 homes were damaged. The flooding affected more than 17,500 hectares (43,000 acres) of crops. Economic losses were estimated at CNY382 million (USD55 million). In Philippines, Yagi caused an enhancement of the southwest monsoonal rains in Philippines, causing death of at least five people and economic losses of PHP996 million (USD19 million).

Tropical Storm Bebinca followed a two-day curving track south-west of Hong Kong bringing significant rain to Guangdong and Hainan, before finally it made landfall Zhanjiang, Guangdong Province on August 15. The inclement weather caused two deaths. At least 100 homes collapsed completely and 47,800 hectares (118,000 acres) of agricultural land were affected. Direct economic loss in China was at least CNY1.3 billion (USD188 million). Bebinca later affected Northern Vietnam as a weakening tropical storm between August 17-19 where it triggered flash floods and landslides. At least 13 people were left dead or missing and more than 10,000 homes were damaged. Initial estimates for Vietnam's Con Cuong district in Nghệ An Province listed losses of VND44.4 billion (USD2 million) for the province.

Tropical Storm Rumbia made landfall in eastern China on August 17 near Shanghai. Data from the Chinese National Commission for Disaster Reduction cited that strong winds and widespread flooding resulted in 13,200 damaged or destroyed homes, particularly in Shanghai, Jiangsu, Zhejiang, Anhui, Shandong and Henan. Total economic losses were estimated at CNY4.8 billion (USD709 million).

Multiple northwest Chinese provinces experienced strong winds and flooding between August 19-23. At least five people were killed and 85,000 were affected across the provinces of Shaanxi, Gansu, and Qinghai. More than 3,100 homes were damaged or destroyed and 11,000 hectares (27,000 acres) of cropland were impacted. Total economic losses were estimated at CNY230 million (USD33 million).

Typhoon Soulik initially crossed Japan's southern Ryukyu Islands before later coming ashore as a much-weakened tropical storm in South Korea's Haenam County on August 23. The storm would later spawn additional heavy rainfall across parts of China and Russia. No fatalities were reported, though the storm reportedly damaged more than 2,000 combined homes. Total economic losses in China alone were minimally listed at CNY550 million (USD81 million). Overall totals were higher.

Typhoon Cimaron struck the Japanese mainland on August 23 as Category 1 storm, bringing strong winds and heavy rain to western sections of the country. Damage was largely minimal, though 33 people were injured in wind-related incidents in parts of Hyogo and Kyoto prefectures. Property damage will likely be insignificant and will mostly include wind and landslide damage in Western Japan.

A non-tropical area of low pressure triggered flooding in several counties in south and central Taiwan from August 23-26. At least seven people were killed and more than 140 others were injured. Chiayi, Kaohsiung and Tainan counties were most adversely affected. The Council of Agriculture estimated the total agricultural loss to be TWD872 million (USD29 million). An estimate from the Ministry of Education indicate at least TWD150 million (USD5 million) in damage to schools due to rain-related incidents.

Heavy rain on August 24 caused flash floods in the eastern Kunar province of Afghanistan. At least 11 people were killed and several homes were destroyed in rain-related incidents in Ghazi-Abad district of the province. The flash floods also destroyed several acres of crops and damaged many bridges.

Severe rainstorms swept over central and southern South Korea on August 28-29, triggering flash floods and landslides. In Seoul, one death and two injuries were attributed to heavy rainfall. In South Joella Province, property damage was estimated to exceed KRW9 billion (USD8 million). In total, roughly 1,000 structures were inundated by floodwaters.

Oceania (Australia, New Zealand, South Pacific Islands)

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 August.

Appendix

Updated 2018 Data: January-July

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	100,000+	1.15+ 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	0	150,000+	1.4+ 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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/29-07/04	Severe Weather	Plains, Midwest	1	20,000+	250+ million
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

Remainder 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

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

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

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

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 Ewiniar	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

Date	Event	Location	Deaths	Structures / Claims	Economic Loss (USD)
06/23-06/27	Flooding	Vietnam	33	3,776 +	23+ million
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	60,000+	3.25+ 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+	61+ 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

Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures / Claims	Economic Loss (USD)
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
01/01-08/01	Drought	Australia	N/A	Thousands	1.2+ billion

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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