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## Executive Summary

- Hurricane Harvey set to be one of the costliest disasters ever recorded in the United States
- Catastrophic monsoon rainfall leads to more than 1,300 fatalities in South Asia
- Severe thunderstorms lead to hundreds of millions (USD) in insured damage losses across Europe

Hurricane Harvey came ashore in Texas on August 25 becoming the first major hurricane to make landfall in the United States since 2005 (Wilma). Initial landfall occurred near Rockport, Texas as a Category 4 cyclone that brought extreme wind gusts, storm surge, isolated tornadoes and prolific rainfall as the storm slowed to a virtual standstill over east-central Texas. Heavy rain continued until August 31 bringing record-breaking amounts to some spots. Catastrophic flooding ensued across a swath of eastern Texas and southwestern Louisiana. More than 60 people were confirmed dead and dozens more were injured. Additional impacts due to severe thunderstorms and flash floods were noted across the Gulf States and Mississippi Valley.

Total economic losses were estimated to minimally reach the tens of billions (USD), which ensures that Harvey is likely to become one of the costliest natural disasters on record in the United States. Insured losses—including those paid by private industry and the National Flood Insurance Program—were likely to well exceed USD10 billion.

Elsewhere, Typhoon Hato and Tropical Storm Pakhar both made landfall in China's Guangdong province within one week causing considerable damage and loss of life in multiple provinces as well as Macau and Hong Kong. Economic losses from Hato alone were minimally estimated at USD3.0 billion while combined insured losses from both storms in Guangdong were estimated at USD535 million. Additionally, Typhoon Noru and Hurricane Franklin impacted southern Japan and Mexico respectively during August.

More than 1,300 people were killed across South Asia due to extensive monsoonal flooding and landslides during August. Throughout India, Bangladesh, and Nepal tens of millions of people were affected as approximately 1.0 million homes were damaged or destroyed. Extensive damage to agriculture and infrastructure was also endured in northeastern India, southern and eastern Nepal, and northern Bangladesh.

Multiple rounds of flooding also impacted several Chinese provinces claiming at least 100 lives and generating aggregated economic losses in excess of USD1.2 billion. Additional floods in nearby northern Vietnam claimed 40 lives and caused losses of USD88 million.

Torrential rainfall over portions of Africa during August led to at least two significant landslides that claimed an estimated 1,250 lives. The largest of these occurred in Sierra Leone on August 14 where the death toll in Freetown was estimated at approximately 1,050. Additional flood events were reported in Russia's Far East, Yemen, Iran, the United States (Florida), and Europe (The Alps) during August.

Several rounds of severe weather including at least two derechos impacted multiple central European countries through the middle part of August. Widespread property, agricultural, and forestry damage was reported from Poland, the Czech Republic, Slovakia, Germany, Switzerland, and Austria. Both economic and insured losses were expected to reach well into the hundreds of millions (EUR).

Multiple severe weather outbreaks were additionally noted in the United States and China.

On August 8, a magnitude-6.5 earthquake struck China's Sichuan province damaging 72,500 homes.

## United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/01	Flooding	Southeast	0	1,000+	10s of millions
08/05-08/08	Severe Weather	Plains, Midwest, Southeast	0	15,000+	325+ million
08/10-08/11	Severe Weather	Plains, Midwest	0	Thousands	100+ million
08/16	Severe Weather	Plains, Midwest	0	Thousands	10s of millions
08/21-08/22	Severe Weather	Midwest, Ohio Valley, Northeast	1	Thousands	Millions+
08/25-09/02	HU Harvey	Plains, Southeast	60	200,000+	10s of billions

A stalled frontal boundary across South Florida led to prolonged heavy rainfall over parts of Miami-Dade County on August 1 as up to 8.00 inches (203 millimeters) fell. Hundreds of homes, businesses, vehicles and other structures were inundated by the floods. Damage was expected in the millions (USD).

Rounds of severe thunderstorms led to widespread damage in several areas from August 5-8. The most significant impacts came in Tulsa, Oklahoma as an EF2 tornado on August 6 caused extensive damage. Prolonged heavy rains from slow-moving thunderstorms led to flash flooding in the greater New Orleans (Louisiana), Kansas City (Kansas), and San Antonio (Texas) metro regions. Economic losses were estimated at USD325 million; while public and private insurers cited payouts of almost USD175 million.

Severe thunderstorms affected central sections of the United States on August 10, as up to softball-sized hail and damaging straight-line winds led to damage in portions of Colorado, Kansas, Wisconsin, and Illinois. Some of the worst impacts were noted in Trego County, Kansas and Bent and Prowers counties in Colorado. Total economic and insured losses were expected well into the millions (USD).

Showers and severe thunderstorms accompanied an area of low pressure on August 16, causing widespread damage in multiple states. The worst impacts were recorded in rural parts of the Plains and Midwest as large hail and straight-line winds left swaths of damage in Kansas, Oklahoma, Missouri and northern Texas. Total economic and insured losses were expected to reach the millions of dollars (USD).

Severe thunderstorms spawned straight-line winds, large hail, isolated tornadoes and flash flooding from August 21-22. The most notable impacts were in the Midwest, Ohio Valley and the Northeast. Severe damage occurred in Kansas City, Missouri, where multiple rounds of thunderstorms prompted flash flooding and multiple high water rescues. At least one person was killed.

Hurricane Harvey came ashore in Texas on August 25, becoming the strongest hurricane to make landfall in the United States since 2004 (Charley), and the first major hurricane to make landfall with at least Category 3 intensity since 2005 (Wilma). Landfall officially occurred near Rockport as a 130 mph (215 kph) Category 4 cyclone, bringing extreme wind gusts, storm surge, isolated tornadoes and prolific rainfall. More than 60 people were confirmed dead and dozens more were injured. The storm slowed to a virtual standstill across east-central Texas as heavy rains continued until August 31, with some spots receiving more than 50 inches (1,270 millimeters). Catastrophic flooding across a broad section of eastern Texas and southwestern Louisiana occurred. Inland damage also occurred in parts of Alabama, Mississippi, the Florida panhandle, Tennessee and Kentucky due to severe thunderstorms and flash floods. Total economic losses were estimated to minimally reach the tens of billions (USD) and become one of the costliest natural disasters on record in the United States. Insured losses—including those paid by private industry and the National Flood Insurance Program (NFIP)—were likely to be substantially less than the overall economic cost, but still well exceed USD10 billion.

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/07-08/10	Hurricane Franklin	Mexico	0	2,000+	Millions
08/28-08/29	Flooding	Canada	0	Hundreds	Millions

Hurricane Franklin – the first Atlantic hurricane of the 2017 season—developed this week and made separate landfalls in Mexico on August 7 and August 10. The storm brought torrential rainfall to Mexico’s Yucatan Peninsula and Belize before later tracking through the Bay of Campeche in the southern Gulf of Mexico and made a final landfall in mainland Mexico. There were no immediate reports of casualties as flash flooding and mudslides were the primary cause of damage, though high winds also led to some structural damage. The total economic cost was anticipated to reach into the millions of dollars (USD).

A slow-moving storm system prompted heavy rainfall across parts of Canada’s Ontario province from August 28-29, causing widespread flooding. The worst damage was noted in parts of Windsor, Tecumseh, and Essex. More than 1,000 initial reports of flooded basements were noted in Windsor alone. Total economic and insured losses were expected to reach into the millions of dollars (USD).

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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There were no significant natural disaster events in South America during the month of August.

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/05-08/06	Flooding	Austria, Italy, Balkans	7+	Thousands	100+ million
08/10-08/11	Severe Weather	Poland, Czech Republic, Slovakia	6+	Thousands	400+ million
08/18-08/19	Severe Weather	Central Europe	5+	Thousands	200+ million

Strong thunderstorms prompted widespread flash flooding, debris flows and mudslides in several Austrian states and Italian Alpine valleys during August 5-6. At least seven fatalities were reported, while significant damage to infrastructure and property occurred, notably in Steiermark, Salzburg and Tirol. Total economic losses were minimally estimated in excess of EUR100 million (USD138 million). Insurable losses were expected to be a smaller fraction of that total.

Two rounds of severe thunderstorms affected multiple central European countries on August 10 and 11. Both events were described by local meteorological offices as derechos which are dangerous phenomena that often cause severe damage. The worst affected country was Poland, where extreme winds caused the worst disaster in the history of country’s forestry industry, leveling around 45,000 hectares (111,200 acres) of forest. Extensive damage was also reported in the Czech Republic and Slovakia. Both economic and insured losses are likely to reach into the hundreds of millions (EUR).

A system of strong frontal thunderstorms swept through several Central European countries during the night of August 18-19. Reports from Germany, Switzerland, Austria, and the Czech Republic indicated widespread property, forestry and agriculture damage that will likely reach USD200 million, while insurers count losses in the tens of millions (EUR). The worst affected area was the German district of Passau, where large areas of forest were destroyed. At least five people were killed.

## Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/11	Flooding	Iran	51+	Thousands	35+ million
08/30	Flooding	Yemen	18+	Thousands	10+ million

At least 51 people were killed or listed as missing following flooding in northern Iran on August 11. The provinces of Golestan, Khorasan, and Khorasan Razavi were hardest hit though portions of Ilam and Semnan were also impacted. Extensive damage to homes and agricultural interests was also reported in local media. Preliminary reports estimated that the damage toll in Khorasan Razavi would minimally reach IRR1.15 trillion (USD35 million).

At least 18 people were killed and a further 32 were listed as missing as flash floods swept through the cities of Taizz and Ibb in southern Yemen on August 30. At least 10 of the fatalities were reported in Taizz where officials reported water depths of up to 3.5 meters (11.5 feet). Local media reported it was the heaviest rainfall experienced in Taizz in at least 20 years. Scores of vehicles were swept away and multiple homes were destroyed. Portions of Jibla, to the south of Ibb, were also impacted.

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/14	Landslide	Sierra Leone	~1,050	1,100+	Millions
08/16	Landslide	DR Congo	200+	50+	Negligible

A national emergency was declared when a series of landslides and flash floods struck Freetown, the capital of Sierra Leone, in the early hours of August 14 claiming at least 450 lives. Among the hardest hit areas was Regent, located to the south of the city center, where a portion of Mount Sugar Loaf collapsed. More than 600 other people were listed as missing. In total about 1,100 dwellings, including some two-story structures, were affected while approximately 4,000 residents were rendered homeless.

At least 200 people were killed in Ituri province of the Democratic Republic of the Congo on August 16 when a landslide struck Tara village at the foot of the Blue Mountains. Local officials reported that the landslide struck following heavy rainfall throughout the day. Approximately 50 dwellings were destroyed.

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/02-08/03	Flooding	China	4	2,000	60+ million
08/02-08/05	Flooding	China	3	15,000+	327+ million
08/03	Flooding	Vietnam	40	Thousands	88+ million
08/06-08/09	Flooding	China	40	10,000+	315+ million
08/06-08/07	Flooding	Russia	0	2,200+	10s of millions
08/07-08/09	TY Noru	Japan	2	Thousands	100s of Millions
08/08	Earthquake	China	25	72,500+	100s of Millions+
08/08-08/09	Severe Weather	China	1	4,200+	17+ million
08/10-08/31	Flooding	Bangladesh	144+	717,600+	10s of millions
08/11-08/31	Flooding	Nepal	159+	235,400+	10s of millions
08/11-08/31	Flooding	India	950+	Thousands	10s of millions
08/11-08/16	Flooding	China	18+	12,600+	429+ million
08/12-08/13	Severe Weather	China	0	300+	54+ million
08/13	Landslide	India	46+	20+	Negligible
08/17-08/20	Severe Weather	China	2+	1,700+	46+ million
08/23-08/24	TY Hato	Macau, Hong Kong, China	22+	7,300+	3.5+ billion
08/25-08/28	TY Pakhar	China	13+	Thousands	56+ million
08/25-09/01	Flooding	China	0	4,700+	90+ million
08/29-08/30	Flooding	India	12	Thousands	500+ million
08/28	Flooding	China	35	Hundreds	2.5+ million
08/21-09/03	Severe Weather	China	2+	Hundreds	93+ million

Severe thunderstorms impacted parts of China's Sichuan and Yunnan provinces on August 2-3 claiming at least four lives as they prompted flash flooding and large hail that additionally damaged hundreds of homes and other structures. The worst damage was incurred by the agricultural sector, with many crops affected. Local infrastructure—roads and bridges—was also damaged. The Ministry of Civil Affairs (MCA) cited economic losses of CNY400 million (USD60 million).

Torrential rainfall in China's Liaoning province from August 2-5 killed at least three people. Most of the damage was from flooding, landslides and submerged cropland. The MCA cited that nearly 10,000 homes were damaged or destroyed, with an estimated economic cost of CNY2.2 billion (USD327 million).

Nearly 40 people were left dead or missing as flash floods swept through multiple northern Vietnamese provinces on August 3. The worst affected areas were in Yên Bái and Sơn La. More than 800 homes were damaged or destroyed along with multiple public buildings, vast swathes of agricultural land, and infrastructure. Economic losses were minimally estimated at VND2.0 trillion (USD88 million).

Consecutive days of torrential rainfall affected no fewer than eight Chinese provinces from August 6-9, leaving at least 40 people dead or missing. The MCA cited that a combined 15,000 homes and nearly 125,000 hectares (309,000 acres) of cropland were damaged or destroyed. Economic losses were listed at CNY2.1 billion (USD315 million).

Flooding in Russia's Far East prompted widespread damage and disruption following prolonged heavy rainfall on August 6-7. The worst affected areas were in Primorsky Krai and Khabarovsk Krai. Some 2,194 homes in Primorsky were inundated including in the city of Ussuriysk. Hundreds of residents were evacuated and multiple streets and vehicles were inundated leading to a state of emergency declaration.

Typhoon Noru made landfall over Japan's Wakayama Prefecture on August 7 as a minimal typhoon. Noru brought torrential rainfall to southern and western parts of the country that triggered widespread flooding and damage. At least two people were killed while 51 others were injured. Damage to homes, vehicles, businesses, and infrastructure was reported from several prefectures as the number of affected structures topped 1,000. Total economic losses were likely to reach the hundreds of millions (USD).

A strong magnitude-6.5 earthquake struck China's Sichuan province on August 8, killing at least 25 people and injuring 525 others. The USGS-registered tremor had its epicenter in Sichuan's Jiuzhaigou County and left extensive damage in the region. China's MCA cited that 72,500 homes had been damaged or destroyed, though a preliminary financial cost estimate was not available at this time.

In China, portions of Inner Mongolia, Heilongjiang, Jilin, and Liaoning were pounded by fierce thunderstorms on August 8-9 that led to extensive flooding. At least one person was killed while hundreds were evacuated. In total 4,200 homes were damaged or destroyed. Agricultural interests were also severely affected as 23,500 hectares (58,070 acres) of crops were inundated. The MCA listed aggregated economic losses at CNY115 million (USD17 million).

At least 144 people were killed due to widespread flooding across Bangladesh as continuous heavy rainfall battered the country from August 10-31 prompting dozens of major rivers to overflow. The worst affected areas were in the north of the country though 32 districts in total were affected. A total of 80,200 homes were destroyed while a further 637,400 had sustained damage. Agriculture also suffered severe losses as 605,000 hectares (1.5 million acres) of crops were affected.

From August 11-31, heavy rainfall pounded southern and eastern parts of Nepal triggering extensive flooding and numerous landslides. At least 159 people were dead or missing and 50 more were injured. More than 43,400 homes were destroyed while a further 192,000 sustained damage. Significant damage was also reported to agriculture as 109,783 hectares (271,280 acres) of crops were affected. Extensive damage to infrastructure was also sustained. Economic losses of NPR55 million (USD536,000) were reported by the government while local media reported additional losses of at least NPR320 million (USD3.1 million). Overall losses are expected to be much higher.

Further extensive flooding engulfed northeastern states of India from August 11-31. At least 950 people were killed in Bihar (514), West Bengal (254), Uttar Pradesh (108), and Assam (74). Millions of people were affected as floodwaters submerged thousands of villages in scores of districts. Extensive damage to agriculture was reported as hundreds of thousands of heads of livestock and more than 1.2 million poultry perished. In addition, 400,000 hectares (988,420 acres) of crops were destroyed in Assam alone. Extensive damage to embankments, dams, roads, bridges, culverts, and canals was described by officials "immense".

The middle and lower reaches of China's Yangtze River Basin region were inundated by heavy rainfall from August 11-16 that led to widespread and disruptive flooding. At least 18 people were killed or listed as missing as more than 100,000 residents were evacuated. A total of 12,600 homes were affected, 1,200 of which were destroyed. In total some 73,800 hectares (182,365 acres) of crops were affected. Hunan was worst affected. The MCA listed economic losses at CNY2.9 billion (USD429 million).



Xinjiang Uyghur Region in China was hit by severe thunderstorms on August 12-13 that caused significant damage to crops: a total area of 13,400 hectares (33,110 acres) was affected. Damage to some 300 homes was also reported. Economic losses were listed at CNY360 million (USD54 million).

At least 46 people were killed in India's Himachal Pradesh state early on August 13 as a landslide engulfed two buses, two cars, and a motorcycle on the Mandi-Pathankot Highway. The landslide struck a rest stop near the village of Kotrupi in Mandi district. It also destroyed some 20 homes though none of the occupants were injured.

Portions of the North China Plain were hit by severe thunderstorms from August 17-20. Parts of Jiangsu, Anhui, Shandong, Henan, and Hubei were subsequently affected by flooding that claimed at least two lives. A total 100 homes were destroyed (all in Shandong) while a further 1,600 were damaged. A total area of 39,000 hectares (96,370 acres) of agricultural land was also affected. The MCA reported aggregated economic losses at CNY305 million (USD46 million).

Typhoon Hato became the first typhoon to make landfall in China this year when it came ashore on August 23 at Category 2 intensity on the Saffir-Simpson Hurricane Wind Scale. The cyclone prompted flooding rainfall and gusty winds across many southern Chinese provinces as well as Hong Kong and Macau. At least 22 people were killed or missing and 373 others were left injured as the MCA confirmed that Hato damaged or destroyed 7,300 homes in China. Preliminary economic damage in Hong Kong, China, and Macau was listed at USD3.0 billion.

Tropical Storm Pakhar made landfall in China's Guangdong province on August 27. It had previously tracked across the Philippines and brought strong winds and heavy rainfall to Hong Kong and Macau. At least 12 people were killed, the majority in China, and many more were injured. The storm caused disruption to travel and transportation throughout the region. China's MCA listed aggregated economic losses in four provinces at CNY370 million (USD56 million) while the China Insurance Regulatory Commission noted that combined insured losses due to TY Hato and TS Pakhar in Guangdong province reached CNY3.5 billion (USD535 million) from 87,000 claims.

China's Sichuan province was deluged by heavy rainfall from August 25-31 that led to extensive and damaging floods. At least eight people were killed or missing. The MCA reported that 400 homes were destroyed while a further 4,300 sustained damage. Damage to agriculture was also noted as some 4,300 hectares (10,625 acres) of crops were affected. Economic losses were listed minimally at CNY570 million (USD87 million).

Torrential monsoonal rain led to widespread flooding in the city of Mumbai and southern portions of Gujarat state, India, on August 29. At least 12 people were killed or missing while a dozen others sustained injuries. The flooding led to widespread disruption to travel and transportation in and around the city as streets were gridlocked and public transport services were cancelled. Disruption was also noted at Chhatrapati International Airport. Preliminary reports from the Indian insurance industry suggests claims payouts will reach INR5.0 billion (USD80 million).

At least 27 people were killed while a further 8 were listed as missing following a landslide that struck the Chinese province of Guizhou on August 28. Eight people were injured following the landslide which struck Zhangjiawan Township, in Bijie. Some 250 homes and other structures were destroyed. The MCA listed economic losses at CNY15 million (USD2.3 million).

Powerful thunderstorms prompted considerable damage in five northeastern Chinese provinces from August 31 through September 3. Two people were listed as missing while tens of thousands of others were additionally affected in Hebei, Shanxi, Inner Mongolia, Liaoning, and Jilin. Large hail caused significant damage to some 17,800 hectares (43,985 acres) of crops. Aggregated economic losses were listed at CNY606 million (USD93 million).

## Oceania (Australia, New Zealand, South Pacific Islands)

<b>Date</b>	<b>Event</b>	<b>Location</b>	<b>Deaths</b>	<b>Structures/ Claims</b>	<b>Economic Loss (USD)</b>
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There were no significant natural disaster events in Oceania during the month of August.

## Appendix

### Updated 2017 Data: January – July

#### United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/03	Severe Weather	Southeast, Plains	6	10,000+	250+ million
01/06-01/13	Winter Weather	Pacific Northwest, Southwest, Rockies	5	40,000+	700+ million
01/06-01/08	Winter Weather	Southeast, East Coast	5	Thousands	Millions
01/13-01/18	Winter Weather	Plains, Midwest	7	Thousands	Millions
01/17-01/19	Winter Weather	West, Rockies	4	Thousands	Millions
01/18-01/23	Severe Weather	Southeast, Plains, West, Northeast	21	100,000+	1.3+ billion
01/19-01/25	Winter Weather	West, Rockies, Plains, Midwest	5	Thousands	Millions
02/07-02/08	Severe Weather	Southeast	1	10,000+	175+ million
02/08-02/09	Winter Weather	Mid-Atlantic, Northeast	1	Unknown	Millions+
02/12-02/14	Flooding	California	0	N/A	200+ million
02/12-02/14	Winter Weather	Upper Mid-Atlantic, Northeast	1	Thousands	Millions+
02/14	Severe Weather	Texas	0	Hundreds	Millions+
02/16-02/18	Flooding	California	7	25,000+	800+ million
02/19-02/21	Flooding	California	1	10,000+	500+ million
02/19-02/20	Severe Weather	Texas	0	20,000+	225+ million
02/24-02/25	Severe Weather	Northeast, Mid-Atlantic	0	Thousands	Millions+
02/27-03/02	Severe Weather	Midwest, Southeast, Mid-Atlantic	4	175,000+	1.9+ billion
03/06-03/10	Severe Weather	Midwest, Plains, Southeast	0	250,000+	2.1+ billion
03/07-03/09	Wildfires	Plains, Rockies, Florida	7	Hundreds	100+ million
03/13-03/15	Winter Weather	Plains, Midwest, Southeast, Northeast	11	Thousands	1.0+ billion
03/20-03/22	Severe Weather	Southeast, Midwest	1	75,000+	975+ million
03/26-03/28	Severe Weather	Plains, Southeast, Midwest	0	180,000+	2.3+ billion
03/28-03/31	Severe Weather	Plains, Southeast, Midwest, Mid-Atlantic	1	30,000+	325+ million
04/01-04/03	Severe Weather	Plains, Southeast	5	30,000+	350+ million
04/04-04/06	Severe Weather	Plains, Mississippi Valley, Southeast	0	90,000+	900+ million
04/07-04/08	Severe Weather	West	1	10,000+	125+ million
04/09-04/11	Severe Weather	Plains, Midwest	1	30,000+	325+ million
04/14-04/20	Severe Weather	Plains, Midwest	0	Thousands	100+ million
04/21-04/26	Severe Weather	Plains, Midwest, Southeast, Mid-Atlantic	1	70,000+	950+ million
04/25-04/27	Severe Weather	Plains, Midwest, Southeast	0	15,000+	125+ million
04/28-05/01	Severe Weather	Midwest, Plains, Southeast, MS Valley	20	100,000+	2.0+ billion
05/02-05/05	Severe Weather	Plains, Mississippi Valley, Southeast	0	20,000+	175+ million
05/08-05/11	Severe Weather	Rockies, Plains	0	250,000+	2.6+ billion
05/15-05/19	Severe Weather	Plains, Midwest, Rockies	3	70,000+	975+ million
05/20-05/24	Severe Weather	Plains, Midwest, MS Valley, Southeast	1	Thousands	Millions
05/25-05/29	Severe Weather	Plains, Midwest, Mid-Atlantic, Rockies	2	40,000+	475+ million
06/02-06/07	Flooding	Florida	0	Thousands	Millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/02-06/04	Severe Weather	Plains	0	15,000+	175+ million
06/11	Severe Weather	Midwest	0	110,000+	1.8+ billion
06/12-06/14	Severe Weather	Plains, Rockies	0	70,000+	850+ million
06/15-06/19	Severe Weather	Plains, Midwest, Northeast	0	55,000+	525+ million
06/21-06/23	TS Cindy	Southwest	2	Hundreds	Millions
06/27-06/30	Severe Weather	Plains, Midwest, Northeast	0	90,000+	1.0+ billion
07/01-07/31	Wildfire	West	0	Hundreds	Millions
07/09-07/12	Severe Weather	Plains, Midwest, Ohio Valley	1	Thousands	170+ million
07/12-07/24	Flooding	Illinois	0	2,100+	Millions
07/15	Flooding	Arizona	10	N/A	N/A
07/19-07/20	Severe Weather	Midwest	0	Hundreds	Millions
07/21-07/23	Severe Weather	Plains, Midwest, Mid-Atlantic	4	35,000+	425+ million
07/31	TS Emily	Florida	0	Hundreds	≤10 million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/24-01/27	Winter Weather	Canada	2	Hundreds	10s of Millions
03/08	Severe Weather	Canada	1	10,000+	125+ million
03/11	Winter Weather	Canada	0	Thousands	Millions
04/15-05/10	Flooding	Canada	0	Thousands	Millions
04/20-04/23	Flooding	Jamaica, Haiti, Dominican Republic	2	Thousands	Millions
05/05-05/10	Flooding	Canada	2	Thousands	10s of millions
05/05-05/20	Flooding	Canada	2	5,200+	100s of millions
05/23-05/24	Severe Weather	Canada	0	Thousands	10s of millions
06/01	TS Beatriz	Mexico	6	Hundreds	Millions
06/02	Severe Weather	Canada	0	3,000+	30+ million
06/10-06/11	Flooding	Honduras, Guatemala	4	Hundreds	10s of millions
07/01-08/01	Wildfire	Canada	0	Dozens	78+ million
07/12-07/13	Severe Weather	Canada	0	Thousands	10s of Millions
07/23	Severe Weather	Canada	0	Hundreds	50+ million
07/27-07/29	Severe Weather	Canada	0	Thousands	Millions

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-02/01	Wildfire	Chile	11	2,500+	870+ million
01/01-04/01	Flooding	Peru	120	245,000+	3.1+ billion
02/24-02/26	Flooding	Chile	6	Hundreds	Millions
03/17-03/27	Flooding	Colombia	12	Hundreds	Millions+
04/01	Flooding	Colombia	420	2,500+	10s of millions
04/19	Landslide	Colombia	24	100+	Millions
05/26-05/29	Flooding	Brazil	14	Thousands	100+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/24-06/19	Flooding	Uruguay, Argentina	0	Thousands	10s of millions
06/16-06/17	Flooding	Chile	4+	800+	100s of millions

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/02-01/13	Winter Weather	Central, Eastern, Southeastern Europe	76	Thousands	10s of millions
01/12-01/13	WS Dieter & Egon	France, Germany	0	25,000+	450+ million
01/18	Earthquake	Italy	30	Hundreds	TBD
01/20-01/24	Severe Weather	Spain, France, Italy	3	Hundreds	Millions
02/03-02/06	EU Windstorms	Spain, France	2	Thousands	Millions+
02/23-02/24	WS Thomas	Western & Central Europe	3	Thousands	475+ million
03/06-03/07	WS Zeus	France	2	Thousands	550+ million
04/19-04/24	Winter Weather	Germany, Austria, Switzerland, Italy	0	Thousands	300+ million
05/29	Severe Weather	Russia	16	Thousands	Millions
06/12	Earthquake	Greece, Turkey	1	1,100+	10s of millions
06/17-06/18	Wildfire	Portugal	64	1,000+	565+ million
06/22-06/25	Severe Weather	Central & Southern Europe	4	Thousands	550+ million
05/01-07/31	Drought	Italy	N/A	N/A	2.3+ billion
07/08-07/08	Flooding	Switzerland	0	6,000+	120+ million
07/17-07/18	Wildfires	Balkans, Portugal, France, Italy	0	Hundreds	Millions
07/21	Earthquake	Greece, Turkey	2	Hundreds	Millions
07/21-07/27	Severe Weather	Central & Southern Europe	0	Thousands	10s of millions

## Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
04/14-04/15	Flooding	Iran	48	Hundreds	353+ million
05/13	Earthquake	Iran	3	Thousands	Millions
07/17-07/18	Flooding	Turkey	0	7,000+	200+ million
07/27	Severe Weather	Turkey	0	22,000+	650+ million

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-03/31	Drought	Somalia, Ethiopia, Kenya	100s	N/A	1.9+ billion
01/01-03/31	Flooding	Zimbabwe	271	Thousands	200+ million
01/01-06/01	Drought	South Africa	N/A	N/A	100+ million
01/05-01/12	Flooding	South Africa, Angola	7	5,000+	Millions
02/15-02/16	Cyclone Dineo	Mozambique	7	107,204+	17+ million
03/07	Cyclone Enawo	Madagascar	99	85,000+	20+ million
03/19	Severe Weather	Ghana	19	0	N/A
03/21-03/24	Flooding	Angola	11	5,300+	Millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/08-05/16	Flooding	Kenya, Tanzania	33	Thousands	194+ million
06/07-06/08	Severe Wx & Wildfires	South Africa	11	Thousands	500+ million
06/10-06/16	Flooding	Niger, Ivory Coast	27+	700+	10s of millions
07/08-07/09	Flooding	Nigeria	20	Hundreds	5.0+ million
07/10	Flooding	Niger	23	2,405	Millions

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/31	Flooding	Thailand	96	585,000+	860+ million
01/01-01/23	Flooding	Malaysia	0	Thousands	132+ million
01/01-06/30	Drought	North Korea, South Korea	N/A	N/A	90+ million
01/12-01/16	Flooding	Philippines	11	Hundreds	Unknown
01/16-01/31	Flooding	Philippines	11	1,000+	8.1+ million
01/20	Landslide	China	12	One	Unknown
01/22-01/24	Flooding	Pakistan	5	Hundreds	Unknown
01/24-01/25	Winter Weather	Afghanistan	31	N/A	Unknown
01/25-01/26	Winter Weather	India	11	N/A	Unknown
01/25-01/30	Flooding	Indonesia	1	2,000+	Millions
01/28	Earthquake	China	0	14,000+	55+ million
02/01-02/05	Winter Weather	Afghanistan, Pakistan	159	325+	Unknown
02/09-02/12	Flooding	Indonesia	12	18,000+	Millions+
02/10	Earthquake	Philippines	8	7,200+	40+ million
02/17-02/19	Winter Weather	Afghanistan, Pakistan	58	N/A	N/A
01/01-05/01	Drought	Sri Lanka	N/A	N/A	10s of millions
03/01	Severe Weather	China	7	13,700+	28+ million
03/03	Flooding	Indonesia	8	3,482+	19+ million
03/14-03/29	Severe Weather	Thailand	3	6,000+	Millions
03/27	Earthquake	China	0	45,000+	50+ million
03/28-04/15	Flooding	Bangladesh	0	Thousands	352+ million
04/01	Landslide	Indonesia	28	23+	11+ million
04/04-04/09	Earthquake	Philippines	0	5,000+	Millions
04/08-04/10	Severe Weather	China	2	2,300+	36+ million
04/15	TD 02W	Philippines	10	170+	Millions
04/15-04/17	Severe Weather	China	0	3,800+	41+ million
04/20-04/22	Heatwave	India	10	N/A	N/A
04/22	Severe Weather	Pakistan	11	Hundreds	Unknown
04/29	Landslide	Kyrgyzstan	24	11+	Unknown
04/29	Flooding	Indonesia	10	71+	Unknown
05/01-08/31	Drought	China	N/A	N/A	2.5+ billion
05/01	Severe Weather	Bangladesh	12	Unknown	Unknown
05/07-05/20	Flooding	China	17	15,000+	225+ million
05/11	Earthquake	China	8	59,300+	294+ million
05/12-05/15	Flooding	Indonesia	7	5,000+	Millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/13-05/15	Severe Weather	China	1	5,000+	147+ million
05/20-05/24	Severe Weather	China	9	20,000+	294+ million
05/25-05/31	Flooding	Sri Lanka	~290	23,000+	197+ million
05/29-05/31	Cyclone Mora	Bangladesh, Myanmar	9	50,000+	100+ million
05/31-06/05	Flooding	China, Taiwan	4	10,100+	368+ million
06/01-06/03	Flooding	Indonesia	4	60,000+	10s of millions
06/05-06/07	Heatwave	India	28	N/A	Unknown
06/09-06/12	Flooding	China	11	11,500+	115+ million
06/10	Severe Weather	Pakistan	15	Hundreds	Millions
06/12-06/13	Flooding	China	1	1,500+	51+ million
06/12-06/13	Flooding	Bangladesh, India	169+	5,000+	10s of millions
06/15-06/21	Flooding	China	9	400+	93+ million
06/21-06/22	Severe Weather	China	2	400+	50+ million
06/23	Landslide	China	83	62+	Millions
06/30-07/04	Flooding	Pakistan	43	Hundreds	Unknown
06/22-07/05	Flooding	China	141	412,600	7.5+ billion
07/04-07/06	TS Nanmadol	Japan	37	2,600+	1.0+ billion
07/06	Earthquake	Philippines	3	3,758+	6.9+ million
07/06-07/11	Severe Weather	China	2	2,100+	67+ million
07/07-07/10	Flooding	Vietnam, Laos	19	Hundreds	1.0+ million
07/07-07/11	Flooding	China	22	18,900+	272+ million
07/08-07/12	Flooding	India, Pakistan, Bangladesh	53	115,000+	100s of millions
07/13-07/17	Flooding	China	20	58,100+	4.5+ billion
07/14-07/18	Flooding	China	0	3,200+	33+ million
07/14-07/18	Flooding	India	27	15,000+	450+ million
07/17	Flooding	Afghanistan	36	260+	Millions
07/17-07/18	TS Talas	China, Vietnam, Laos, Thailand	4	4,200+	44+ million
07/17-07/20	Flooding	China	11	3,200+	37+ million
07/18-07/25	Flooding	Thailand, Myanmar	23	12,500+	300+ million
07/19-07/21	Severe Weather	China	12	3,700+	48+ million
07/21-07/26	Flooding	India	53	Thousands	10s of millions
07/22-07/23	Flooding	South Korea	2	2,345+	51+ million
07/23	Earthquake	China	0	8,700+	8.0+ million
07/24-07/28	Severe Weather	China	13	6,500+	171+ million
07/25-07/28	TS Sonca	Vietnam, Laos, Cambodia, Thailand	12	4,176+	Millions
07/29-07/31	TY Nesat & TS Haitang	China, Taiwan, Philippines	1	10,000+	132+ million

## Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/20-01/23	Flooding	French Polynesia	0	1,000+	Millions
02/09-02/13	Wildfires	Australia	0	1,200+	10s of Millions
02/09-02/16	Flooding	Australia	2	Thousands	100s of Millions
02/17-02/19	Severe Weather	Australia	1	53,700+	525+ million
03/07-03/12	Flooding	New Zealand	0	7,800+	90+ million
03/28-04/05	CY Debbie	Australia	14	66,000+	2.4+ billion
04/09-04/14	Cyclone Cook	Vanuatu, New Caledonia, New Zealand	1	Thousands	Millions
05/04-05/10	Cyclone Donna	South Pacific Islands, New Zealand	2	Hundreds	Millions
07/21-07/23	Winter Weather	New Zealand	0	Thousands	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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