

# July 2013 Global Catastrophe Recap



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## Executive Summary

- Thunderstorms prompt flooding in the greater Toronto metropolitan region; economic losses top USD1.0 billion
- Seasonal rains cause significant flooding across Asia as economic cost approaches USD8.0 billion
- Strong earthquakes strike China, Indonesia and New Zealand

Strong thunderstorms brought record rainfall across Canada's greater Toronto metropolitan region, prompting significant flooding and power outages. No fatalities or serious injuries were reported. The floods caused widespread damage to personal and commercial properties, vehicles and infrastructure - including in downtown Toronto. Total economic losses were estimated to approach CAD1.7 billion (USD1.65 billion), with roughly half of those losses covered by insurance (CAD850 million (USD825 million)). This marked the second billion-dollar natural disaster event to occur in Canada in 2013. (The first was an extensive flood event that inundated the province of Alberta in June.)

Additional periods of severe weather were also noted in Canada, with damage from winds gusting to 100 kph (60 mph) and large hail recorded in the provincial regions of Ontario, Quebec, Alberta, Saskatchewan and Manitoba.

Three stretches of severe weather affected the United States, with the vast majority of the damage occurring due to straight-line winds and hail. The number of tornado touchdowns during the month was again below normal, as 2013 remains one of the least tornadic years in U.S. history dating to the 1950s. Total combined economic losses were listed at roughly USD600 million, of which nearly USD400 million was covered by insurance.

Seasonal rainfall swept across several Asian countries during the month, as significant flooding and casualties occurred. China was among the hardest-hit, where at least four separate waves of extended rainfall caused damage in almost every section of the country. Three of the stretches caused economic losses beyond USD1.0 billion. More than 225 people were killed.

Monsoon rains prompted renewed flooding and landslides in northern India, as at least 174 people were killed in the state of Uttar Pradesh. Elsewhere in Asia, dozens of casualties and severe damage was noted in Indonesia, Myanmar, Thailand, Vietnam, Japan, and North Korea.

A magnitude-5.9 earthquake struck China's Gansu Province, killing at least 95 people and injuring 2,840 others. The most significant damage occurred near the epicentral region close to the border of Minxian and Zhangxian counties in the prefecture-level city of Dingxi. An estimated 80,000 homes were damaged or destroyed. The Ministry of Civil Affairs (MCA) listed total economic losses at CNY20 billion (USD3.25 billion).

Also in Asia, a magnitude-6.1 earthquake struck Indonesia's Aceh Province. At least 42 people were killed and more than 2,362 others were injured. The heaviest damage was recorded in the districts of Bener Meriah and Central Aceh where a combined 20,401 homes and public facilities were damaged or destroyed.

In New Zealand, a magnitude-6.5 earthquake occurred in the Cook Strait and caused minor damage across the North and South islands. Four people were injured. The New Zealand Earthquake Commission (EQC) reported that at least 5,452 claims had been filed, nearly all for minor damage or damaged contents. The EQC estimated insured losses at NZD14 million (USD11.8 million).

Three tropical cyclones affected Asia during July, with the costliest being Super Typhoon Soulik. Soulik caused USD460 million in economic damages after making landfall in Taiwan and China. Typhoon Rumbia caused economic losses of USD177 million in China after affecting the provincial regions of Guangdong, Guangxi and Yunnan. Tropical Storm Cimaron made landfall in China's Fujian Province and caused an estimated USD253 million in economic loss.

Hurricane Erick skirted the western Mexico coastline and left two people dead; while Tropical Storm Chantal degenerated while crossing the Caribbean Sea.

## United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
7/8-7/10	Severe Weather	Central and Eastern U.S.	1	20,000+	175 + million
7/19-7/20	Severe Weather	Plains, Midwest, Northeast	1	25,000+	215+ million
7/21-7/24	Severe Weather	Plains, Rockies, Midwest	0	20,000+	275+ million
7/27-7/28	Flooding	North Carolina, Pennsylvania	2	Hundreds+	25+ million

Severe weather swept across the northern Rockies, Plains, Midwest and the Northeast between the 8th and 10th, killing at least one person. Most of the damage occurred as a result thunderstorms producing straight-line winds that topped 95 mph (155 kph) and large hail. Some areas recorded flooding as well. The heaviest damage was noted in the Great Lakes and the Northeast, where an elongated line of thunderstorms affected multiple states. Total economic losses were estimated at USD175 million, with insured losses listed in excess of USD100 million.

Clusters of strong thunderstorms affected a broad area from northern New England to the High Plains on the 19th and 20th, leading to the death of one person. Damaging winds in excess of 70 mph (115 kph) caused damage from Illinois to Maine, with the most significant impacts occurring in parts of Michigan, Ohio and New York. Up to golf ball-sized hail caused notable damage in the Dakotas and Nebraska as well. Total economic losses were estimated at USD215 million, with insured losses listed in excess of USD135 million.

An active weather pattern spawned severe weather throughout the Rockies, Plains and the Midwest between the 21st and 24th. The hardest-hit areas were in Kansas and Oklahoma, where an intense cluster of thunderstorms spawned up to grapefruit-sized hail and straight-line winds gusting as high as 100 mph (160 kph). Torrential rains also spawned isolated reports of flooding in the state. Total economic losses were estimated at USD275 million, with insured losses listed in excess of USD150 million.

A slow-moving storm system prompted flooding across parts of North Carolina and Pennsylvania on the 27th and 28th. In North Carolina, at least two people were killed after excessive rains affected northern Cleveland, western Lincoln and Catawba counties. More than 475 buildings were damaged in Catawba alone. Record rains also fell in the greater Philadelphia, Pennsylvania region, which led to flash flooding and power outages. Total economic losses attributed to flooding during the two-day stretch was anticipated to top USD25 million.

## Remainder of North America (Canada, Mexico, Central America, Caribbean Islands, Bermuda)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
7/5-7/9	HU Erick	Mexico	2	Hundreds+	Unknown
7/8	Severe Weather	Canada	0	25,000+	1.65+ billion
7/9-7/11	TS Chantal	Caribbean	1	Unknown	10+ million
7/19-7/20	Severe Weather	Canada	1	Hundreds+	Millions+
7/20-7/21	Severe Weather	Canada	0	Hundreds+	Millions+

Hurricane Erick tracked close to the western coast of Mexico between the 5th and 9th as outer rainbands affected largely unpopulated areas. At least two fatalities were reported in the state of Nayarit following the Indio River overflowing its banks. Hundreds of homes were damaged.

Strong thunderstorms brought record rainfall across Canada's greater Toronto metropolitan region on the 8th, prompting significant flooding and power outages. No fatalities or serious injuries were reported. The floods caused widespread damage to personal and commercial properties, vehicles and infrastructure - including in downtown Toronto. Damaging winds also downed tree branches. Total economic losses were estimated at CAD1.7 billion (USD1.65 billion), with the Insurance Bureau of Canada listing insured losses at CAD850 million (USD825 million).

Tropical Storm Chantal quickly tracked through the Caribbean between the 9th and 11th before degenerating into a tropical wave. The system brought periods of heavy rain and gusty winds to the Leeward and Windward Islands and Hispaniola, though damage was minimal. One fatality was attributed to Chantal. Total economic losses were estimated at less than USD10 million.

Severe weather swept across parts of Canada's Ontario and Quebec provinces on the 19th and 20th, killing at least one person. More than 250,000 customers lost electricity as intense thunderstorms with winds gusting to 100 kph (60 mph) and torrential rains downed trees and power lines. Damage was widespread to residential and commercial properties, with insured losses anticipated to reach well into the millions of dollars (USD).

A strong storm system spawned powerful thunderstorms across portions of southern Alberta, Saskatchewan and Manitoba in Canada on the 20th and 21st. Environment Canada noted that the inclement weather brought periods of torrential rain, large hail and damaging winds that damaged a high volume of residential and commercial properties. Insured losses were anticipated to reach well into the millions of dollars (USD).

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
6/20-7/19	Flooding	Paraguay, Argentina, Brazil	0	13,000+	Unknown
7/16	Earthquake	Peru	0	691+	Millions+

Multiple days of persistent rainfall prompted widespread flooding in Paraguay during the second half of June into July, leading to emergency declarations in the eastern states of Alto Paraná, Misiones, Itapúa, and Ñeembucú. No injuries or fatalities were reported. The excessive rainfall prompted the Parana River to rise to its highest level in history at some locations as more than 13,000 families were left homeless. Additional flood damage was noted in the bordering countries of Argentina and Brazil.

A magnitude-6.0 earthquake struck southern Peru on the 16th, injuring at least three people. The tremor occurred at 9:37 PM local time (2:37 UTC July 15) with an epicenter 18 kilometers (11 miles) west of Chivay, Peru. According to Peru's Civil Defense, the hardest-hit areas came in the districts of Huambo, Cabanaconde, Maca, Lari, Yanque, Tapay and Union in the department of Arequipa. A combined 691 homes and other structures were damaged.

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
7/19	Flooding	Georgia	0	3,800+	Unknown
7/27-7/28	Severe Weather	Germany, France	0	750,000+	4.25+ billion

Torrential rains inundated parts of Georgia on the 19th, leaving at least 3,800 families homeless. No serious injuries or fatalities were reported. The hardest-hit areas were Samegrelo, Gusia, Ajara, and Mtskheta-Mtianeti, where high water levels cracked walls, flooded cropland and damaged infrastructure.

Powerful clusters of thunderstorms affected northern Germany and France on the 27th and 28th, spawning up to tennis ball-sized hail. Germany sustained extensive damage to homes and vehicles, with some of the worst damage in the village of Wassel. Severe damage was also noted elsewhere in the states of Baden-Württemberg, Lower Saxony, and Westphalia. Hundreds of thousands of properties and vehicles were damaged. Parts of northern and central France sustained similar damage. Total economic losses were estimated in excess of EUR3.1 billion (USD4.25 billion), with insured losses up to EUR2.2 billion (USD3.0 billion).

## Africa

Date	Event	Location	Deaths	Structures/Claims	Economic Loss (USD)
7/17	Earthquake	Algeria	0	Thousands+	Unknown

A magnitude-4.9 earthquake struck northern Algeria on the 18th, causing significant damage in multiple towns. At least 24 people were injured. The tremor occurred at 4:00 AM local time (3:00 AM UTC) with an epicenter 3.0 kilometers (2.0 miles) east-northeast of Bouinan, Algeria. The hardest-hit areas came in the Blida Province, where an estimated 90% of all buildings in the towns of Megtaa Lazreg, El Bordj and Hammam Melouane had been damaged.

## Asia

Date	Event	Location	Deaths	Structures/Claims	Economic Loss (USD)
6/29-7/3	Flooding	China	55	125,000+	1.4+ billion
6/29-7/2	TY Rumbia	China, Philippines	7	4,500+	178+ million
7/1-7/31	Flooding	North Korea	33	6,000+	Unknown
7/2	Earthquake	Indonesia	42	20,401+	134+ million
7/7-7/17	Flooding	China	125	375,000+	4.5+ billion
7/9-7/10	Flooding	India	174	5,000+	Millions+
7/13-7/15	STY Soulik	China, Taiwan	9	10,000+	460+ million
7/16-7/18	TS Cimaron	China, Philippines	1	10,000+	253+ million
7/21-7/25	Flooding	China	36	143,700+	1.4+ billion
7/22	Earthquake	China	95	80,000+	3.25+ billion
7/25-7/28	Flooding	Myanmar, Thailand	13	20,000+	97+ million
7/25-8/1	Flooding	China	10	25,000+	571+ million
7/28	Flooding	Japan	5	5,863+	Millions+
7/28-7/30	Flooding	Vietnam	5	1,000+	6.5+ million
7/28-7/30	Flooding	Indonesia	12	1,628+	Unknown

Multiple days of torrential rainfall swept across parts of southwestern, central, eastern, and northern China between June 29 and July 3, leading to the deaths of at least 55 people. The excessive rains prompted widespread flooding across parts of 13 provinces. According to the Ministry of Civil Affairs (MCA), a combined 125,000 homes were damaged or destroyed, and more than 150,000 hectares (370,650 acres) of cropland were submerged. Total economic losses were estimated at CNY8.5 billion (USD1.4 billion).

Typhoon Rumbia made landfall in China on July 1 after first crossing the Philippines in late June. At least seven fatalities were blamed on the storm. A weakened Rumbia came ashore as a 110 kph (70 mph) tropical storm in Guangdong Province and later spread heavy rains and gusty winds into Guangxi and Yunnan provinces. The MCA reported that 4,200 homes were damaged and total economic losses were CNY1.1 billion (USD177 million). In the Philippines, hundreds of homes were damaged or destroyed on the island groups of Visayas and Luzon. Total relief costs were estimated at less than USD1.0 million.

Weeks of seasonal heavy rainfall inundated North Korea during the entire month of July, as extensive flooding left at least 33 people dead. The hardest-hit provinces were North and South Pyongan, where a combined 6,000 homes were destroyed. Tens of thousands of hectares (acres) of critical agricultural lands were destroyed as well.

A magnitude-6.1 earthquake struck Indonesia's Aceh Province on the 2nd, killing at least 42 people and injuring more than 2,362 others. The tremor occurred at 2:37 PM local time (7:37 UTC) with an epicenter 55 kilometers (34 miles) south of Bireun, Indonesia. According to the National Disaster Mitigation Agency (NDMA), the heaviest damage was recorded in the districts of Bener Meriah and Central Aceh where a combined 20,401 homes and other structures (including mosques, schools, health centers, and government buildings) were damaged or destroyed. More than 1,500 vehicles were damaged as well. Heavy infrastructure damage to roads and bridges was noted. Total economic losses were listed by the NDMA at IDR1.38 trillion (USD134 million).

Prolonged heavy rainfall brought significant flooding across nearly every section of China between the 7th and 17th, killing at least 125 people. More than 180 others were listed as missing as the floods affected 32 provincial regions. Sichuan Province reported its worst floods in at least 50 years after more than 1,150 millimeters (45.3 inches) of rain fell in the Dujiangyan region. Damage to property, agriculture and infrastructure was extensive. Nationwide, the MCA reported that 375,000 homes were damaged or destroyed, and more than 300,000 hectares (741,000 acres) of cropland were submerged. Total economic losses were estimated at CNY28 billion (USD4.5 billion).

Monsoon rains spawned flooding across India on the 9th and 10th, killing at least 174 people in the state of Uttar Pradesh during the month of July. Several rivers overflowed their banks (including the Ganges, Ghagra, Kuano, Saryu and Sharda) which led to more than 700 villages in 15 districts being inundated. As many as one million people have been forced from their homes. Beyond the property damage, infrastructure was heavily affected as well. Additional flood damage was noted in the state of Assam after the Brahmaputra River overflowed.

Super Typhoon Soulik made separate landfalls in northern Taiwan (July 13) and China's Fujian Province (July 14), killing at least nine people and injuring more than 150 others. Soulik first affected Japan's southern Ryukyu Islands, where hurricane-force winds and heavy rain caused at least JPY484 million (USD5.0 million) in damage. In Taiwan, torrential rains and winds gusting to 220 kph (140 mph) left thousands of homes and other structures damaged. Agricultural losses were listed at TWD1.3 billion (USD43.5 million). In China, excessive rain and winds affected the provinces of Fujian, Guangdong, Zhejiang, Jiangxi, and Anhui. More than 5,100 homes were damaged or destroyed. Total economic losses were estimated at CNY2.51 billion (USD410 million).

Tropical Storm Cimaron made landfall in China's Fujian Province on the 18th with 65 kph (40 mph) winds. At least one fatality was reported. The MCA indicated that at least 600 homes had been damaged or destroyed. Total economic losses were estimated at CNY1.55 billion (USD253 million). Cimaron first skirted the northern edge of the Philippines' Luzon as a tropical depression, though damage was minimal.

Excessive rainfall brought renewed flooding across China between the 21st and 25th, killing at least 36 people. The rains were most significant in the provincial region of Shaanxi due to overflowing rivers and landslides. Flood and thunderstorm damage was also prevalent across the provinces of Jilin, Gansu, Heilongjiang, Xinjiang, and Sichuan. According to the MCA, a combined 143,700 homes were damaged or destroyed in addition to thousands of hectares (acres) of cropland. Total economic losses were listed at CNY8.5 billion (USD1.4 billion).

A magnitude-5.9 earthquake struck China's Gansu Province on the 22nd, killing at least 95 people and injuring 2,840 others. The tremor occurred at 7:45 AM local time (23:45 UTC Sunday) with an epicenter 13 kilometers (8 miles) east of Chabu, China. The most significant damage occurred near the epicentral region close to the border of Minxian and Zhangxian counties in the prefecture-level city of Dingxi. An estimated 80,000 homes were damaged or destroyed, primarily in rural areas where mud-brick construction is poor. The MCA estimated total economic losses at CNY20 billion (USD3.25 billion). Given an insurance penetration rate below 1%, the insured loss impact was minimal.

Seasonal monsoon rains prompted flooding across eastern Myanmar and western Thailand between the 25th and 28th, killing at least 13 people. In Myanmar, the flooding was most significant in Karen state, where at least 25,000 people were left homeless. Thousands of homes, schools and other structures were damaged. Neighboring states of Mon and Rakhine reported similar flooding as well, with another 40,000 left homeless. In Thailand, seven provinces sustained flooding, with the hardest-hit areas coming in Tak Province's Mae Sot district. Local officials reported that at least 20 clothes manufacturing plants were damaged. Total damage to the factories and lost revenue from border trade was a combined THB3.0 billion (USD97 million).

Heavy rains and strong thunderstorms again inundated central, eastern and northern China between July 25 and August 1, killing at least 10 people. The MCA reported that at least nine provincial regions were affected, with Shandong and Xinjiang among the hardest-hit. A combined 25,000 homes were damaged or destroyed by floodwaters, hail and damaging winds. More than 50,000 hectares (124,000 acres) of cropland was submerged. Total economic losses were estimated at CNY3.5 billion (USD571 million).

Torrential rains inundated western Japan on the 28th, spawning floods and landslides that killed at least five people. According to Japan's Fire and Disaster Management Agency (FDMA), the hardest-hit prefectures were Shimane and Yamaguchi following more than 350 millimeters (13.78 inches) of rain. The FDMA citing that at least 5,863 homes and other structures had sustained varying levels of flood inundation or damage.

Monsoonal rains brought severe flooding throughout northern Vietnam between the 28th and 30th. At least five people were killed. The hardest-hit provinces were Lao Cai, Son La, Quang Ninh, and Tuyen Quang as rivers burst their banks and landslides engulfed villages. Disaster officials reported that more than 1,000 homes were damaged or destroyed in addition to more than 10,000 hectares (24,700 acres) of crops. Total economic losses were estimated at VND137 billion (USD6.5 million).

Heavy rains affected several islands of the Indonesian archipelago between the 28th and 30th, spawning flash floods and landslides that left at least 12 people dead. The most significant impacts were noted in the city of Ambon in Maluku Province, where more than 958 structures were damaged. Additional flood impacts were recorded in Central Maluku (470 homes damaged) and Lampung Province (200 homes damaged).

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
7/21	Earthquake	New Zealand	0	5,452+	50+ million

A magnitude-6.5 earthquake struck just off the coast of New Zealand in the Cook Strait on the 21st, injuring four people. The main tremor occurred at 5:09 PM local time (5:09 UTC) with an epicenter located 54 kilometers (34 miles) south-southwest of Wellington, New Zealand. The most notable damage came in Wellington's Central Business District, where 35 buildings sustained minor external damage. Minor non-structural damage was also reported in Paraparaumu, Wainuiomata, Porirua, and the Hutt Valley on the North Island. On the South Island, minor impacts were felt in the cities of Seddon, Blenheim and Marlborough. The New Zealand Earthquake Commission (EQC) reported that at least 4,612 claims had been filed, nearly all for minor damage or damaged contents. The EQC estimated insured losses at NZD14 million (USD11.8 million). Total economic losses were higher.



## APPENDIX

### Updated 2013 Data: January – June

#### United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/8-1/10	Severe Weather	Southeast	0	500+	10+ million
1/11-1/17	Winter Weather	California	0	Unknown	28+ million
1/29-1/30	Severe Weather	Southeast, Midwest, Plains	3	25,000+	350+ million
2/8-2/9	Winter Weather	Northeast, Mid-Atlantic	15	10,000+	100+ million
2/9-2/11	Winter Weather	Midwest, Plains, Southeast	1	7,500+	100+ million
2/21-2/22	Winter Weather	Plains, Midwest, Southeast	2	Thousands+	Millions+
2/24-2/27	Winter Weather	Plains, Midwest, Northeast	3	100,000+	1.0+ billion
3/4-3/8	Winter Weather	Plains, Midwest, Northeast	5	Thousands+	50+ million
3/18-3/20	Severe Weather	Southeast, Northeast	2	250,000+	2.5+ billion
3/23-3/25	Winter Weather	Plains, Midwest, Northeast	0	Unknown	Unknown
3/29-3/31	Severe Weather	Plains, Southeast	0	35,000+	325+ million
4/1-4/2	Severe Weather	Texas	0	25,000+	250+ million
4/7-4/11	Severe Weather	Nationwide	3	125,000+	1.6+ billion
4/17-4/19	Severe Weather	Central and Eastern U.S.	3	75,000+	900+ million
4/17-4/30	Flooding	Midwest, Mississippi Valley	4	25,000+	200+ million
4/26-4/28	Severe Weather	Plains, MS Valley, Southeast	0	45,000+	350+ million
4/29	Severe Weather	Midwest	0	12,500+	125+ million
5/8-5/11	Severe Weather	Texas, Oklahoma, Kansas	0	30,000+	200+ million
5/15-5/17	Severe Weather	Plains, Southeast	6	25,000+	500+ million
5/18-5/22	Severe Weather	Plains, Midwest, Northeast	29	100,000+	4.5+ billion
5/19	Flooding	Georgia	0	Hundreds+	10+ million
5/23	Severe Weather	Texas	0	Thousands+	Millions+
5/25	Flooding	Texas	3	Thousands+	Millions+
5/26-6/2	Severe Weather	Plains, Midwest, Northeast	27	120,000+	2.0+ billion
5/30-6/8	Wildfire	California	0	58+	21.4+ million
6/6-6/8	TS Andrea	Florida, Eastern Seaboard	3	Hundreds+	Unknown
6/11-6/20	Wildfire	Colorado	2	4,000+	500+ million
6/12-6/13	Severe Weather	Midwest, Northeast, Mid-Atlantic	4	55,000+	500+ million
6/20-6/28	Severe Weather	Central and Eastern U.S.	2	75,000+	700+ million
6/28-7/10	Wildfire	Arizona	19	129+	Millions+

#### Remainder of North America (Canada, Mexico, Caribbean, Bermuda)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-5/31	Drought	Panama	0	Unknown	200+ million
2/7-2/10	Winter Weather	Canada	3	Thousands+	4.0+ million
4/18	Severe Weather	Canada	0	Hundreds+	Unknown

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
4/15-5/10	Flooding	Canada	0	2,000+	Millions+
5/22	Flooding	Bahamas	0	1,000+	45+ million
5/28-5/30	HU Barbara	Mexico, Central America	4	5,000+	Unknown
6/19-6/24	Flooding	Canada	4	Thousands+	5.3+ billion
6/20-6/21	TS Barry	Mexico, El Salvador, Belize	3	2,000+	Unknown

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-5/31	Drought	Brazil	0	Unknown	8.3+ billion
1/1-1/20	Flooding	Brazil	4	10,000+	Millions+
1/1-2/20	Flooding	Peru	31	12,000+	Unknown
1/24	Flooding	Ecuador	10	Dozens+	Unknown
1/28-2/15	Flooding	Bolivia	24	582+	2.5+ million
1/30	Earthquake	Chile	1	Hundreds+	Unknown
2/9	Earthquake	Colombia	0	4,050+	4.0+ million
2/21-2/22	Wildfire	Chile	0	100+	Unknown
3/15-3/18	Flooding	Colombia	0	11,200+	Unknown
3/17-3/18	Flooding	Brazil	30	1,000+	1.5+ million
4/2-4/4	Flooding	Argentina	86	105,000+	1.3+ billion
4/23	Flooding	Ecuador	14	Dozens+	Unknown
6/20-7/19	Flooding	Paraguay, Argentina, Brazil	0	5,000+	Unknown

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/17-1/22	Winter Weather	Western Europe	7	7,000+	715+ million
1/28	Flooding	Turkey	7	Unknown	Unknown
2/15	Meteor Explosion	Russia	0	108,000+	33+ million
2/22	Flooding	Greece	1	1,000+	Millions+
2/24-2/26	Flooding	Macedonia, Serbia	1	2,000+	Millions+
3/12-3/31	Winter Weather	West/Central/East Europe	30	150,000+	1.8+ billion
3/14	Severe Weather	Azores	3	500+	45+ million
4/23	Earthquake	Hungary	0	600+	Unknown
5/3	Severe Weather	Italy	0	5,000+	13.1+ million
5/11-5/14	Severe Weather	Turkey	3	1,000+	Unknown
5/12	Severe Weather	Armenia	0	12,800+	61+ million
5/22	Severe Weather	Russia	0	250+	3.2+ million
5/30-6/15	Flooding	Central Europe	23	100,000+	22+ billion
6/18-6/19	Severe Weather	France, Spain	3	Thousands+	655+ million
6/20-6/21	Severe Weather	Switzerland	0	25,000+	250+ million

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/10-2/28	Flooding	Southern Africa	175	125,000+	525+ million
1/10-3/31	Flooding	Namibia	0	12,000+	Unknown
1/27-2/2	CY Felleng	Madagascar, Seychelles	18	9,965+	10+ million
2/13	Flooding	Mauritius	0	1,500+	30+ million
2/20-2/23	CY Haruna	Madagascar	26	16,449+	25+ million
3/4	Severe Weather	Central African Republic	0	1,314+	Unknown
3/30	Flooding	Mauritius	11	Thousands+	Millions+
3/1-4/30	Flooding	Ghana	5	10,000+	Unknown
3/10-4/30	Flooding	Kenya	66	35,000+	36+ million
4/6-4/7	Flooding	Angola	9	1,000+	Unknown
4/10-4/30	Flooding	Ethiopia	0	5,256+	2.2+ million
5/1-5/5	Flooding	Uganda	10	5,000+	3.1+ million
6/1	Severe Weather	South Africa	3	547+	Unknown

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-1/20	Winter Weather	India, Bangladesh, Nepal	329	Unknown	Unknown
1/1-7/31	Drought	China	0	Unknown	10+ billion
1/3-1/9	Winter Weather	China	0	7,500+	204+ million
1/6-1/9	Winter Weather	Middle East	11	5,000+	345+ million
1/11	Flooding	China	46	63+	48+ million
1/15-1/23	Flooding	Philippines	10	5,000+	2.8+ million
1/17-1/18	Winter Weather	India	0	Thousands+	185+ million
1/20-1/27	Flooding	Indonesia	41	100,274+	3.31+ billion
1/22	Earthquake	Indonesia	1	100+	Unknown
1/25-1/27	Flooding	Sri Lanka	1	2,164+	Unknown
1/27	Flooding	Indonesia	21	100+	Unknown
1/28	Earthquake	Kazakhstan, China	1	8,900+	29+ million
2/15-2/22	Flooding	Indonesia	17	11,608+	Millions+
2/18-2/20	TD Two	Philippines	5	5,000+	1.68+ million
2/18-2/21	Winter Weather	China	2	2,700+	124+ million
2/19-2/20	Earthquakes	China	0	3,271+	67+ million
2/26-2/28	Flooding	Indonesia	3	3,000+	Unknown
2/23-3/3	Winter Weather	Japan	9	384+	14.2+ million
3/3	Earthquake	China	0	85,542+	56+ million
3/9-3/13	Severe Weather	China	1	46,650+	161+ million
3/11	Earthquake	China	0	864+	Unknown
3/17-3/18	Flooding	China	0	7,000+	13+ million
3/18-3/20	Severe Weather	China	25	279,600+	259+ million
3/22	Severe Weather	Bangladesh	35	3,387+	Unknown

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
3/25	Flooding	Indonesia	13	10+	Unknown
3/26-4/2	Severe Weather	Vietnam	1	25,000+	14.4+ million
3/27	Earthquake	Taiwan	1	1,000+	1.0+ million
3/29-3/30	Severe Weather	China	3	5,000+	26+ million
3/29-3/30	Severe Weather	Bangladesh, India	11	5,004+	Unknown
4/6-4/9	Severe Weather	Japan	3	555+	Unknown
4/7-11	Flooding	Indonesia	11	22,830+	Unknown
4/9	Earthquake	Iran	41	3,100+	600+ million
4/13	Earthquake	Japan	0	2,802+	Unknown
4/16	Earthquake	Iran, Pakistan	36	3,500+	Unknown
4/17	Earthquake	China	0	16,109+	38+ million
4/17-4/19	Severe Weather	China	2	57,100+	309+ million
4/20	Earthquake	China	196	620,000+	14+ billion
4/20-5/15	Flooding	Maldives	0	1,000+	Unknown
4/22	Flooding	China	11	Unknown	Unknown
4/23-4/24	Flooding	Afghanistan	20	2,100+	Unknown
4/24	Earthquake	Afghanistan	18	2,000+	Unknown
4/25	Earthquake	China	1	29,000+	47+ million
4/28-5/1	Severe Weather	China	12	43,400+	154+ million
5/1	Earthquake	India	2	12,000+	4.6+ million
5/6-5/10	Flooding	China	19	51,000+	293+ million
5/13-5/16	CY Mahasen	Bangladesh, Myanmar, India	52	150,000+	200+ million
5/14-5/16	Flooding	China	55	60,000+	935+ million
5/19-5/23	Flooding	China	12	20,000+	445+ million
5/24-5/27	Flooding	China	12	40,000+	333+ million
6/1	Earthquake	Taiwan	4	500+	1.1+ million
6/1-6/3	Earthquake	Philippines	0	500+	Unknown
6/5-6/8	Flooding	China	15	5,000+	277+ million
6/8-6/10	Severe Weather	Sri Lanka	58	4,295+	Millions+
6/14-6/18	Flooding	India, Nepal	6,500	25,000+	1.1+ billion
6/14-6/21	Flooding	China	11	56,100+	555+ million
6/21-6/23	TS Bebinca	China, Vietnam	0	1,000+	45+ million
6/23-6/25	Severe Weather	China	11	10,000+	118+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-5/10	Drought	New Zealand	0	Unknown	1.6+ billion
1/1-1/17	Wildfires	Australia (TAS, NSW, VIC)	1	3,500+	175+ million
1/21-1/30	Flooding	Australia (QLD, NSW)	6	87,843+	2.5+ billion
2/6	Earthquake	Solomon Islands	13	1,066+	Millions+
2/22-2/24	Severe Weather	Australia (NSW, QLD)	1	6,000+	16+ million
2/25-2/27	CY Rusty	Australia (WA)	0	Unknown	Unknown

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
3/21	Severe Weather	Australia (VIC, NSW)	0	1,198+	21+ million
4/20-4/21	Flooding	New Zealand	0	1,500+	39+ million
6/18-6/21	Winter Weather	New Zealand	0	9,500+	40+ million

**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 insurance companies 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.

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Impact Forecasting® is a catastrophe model development center of excellence within Aon Benfield whose seismologists, meteorologists, hydrologists, engineers, mathematicians, GIS experts, finance, risk management and insurance professionals analyze the financial implications of natural and man-made catastrophes around the world. Impact Forecasting's experts develop software tools and models that help clients understand underlying risks from hurricanes, tornadoes, earthquakes, floods, wildfires and terrorist attacks on property, casualty and crop insurers and reinsurers. Impact Forecasting is the only catastrophe model development firm integrated into a reinsurance intermediary. To find out more about Impact Forecasting, visit [impactforecasting.com](http://impactforecasting.com).

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