



# Global Catastrophe Recap

November 2016

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## Executive Summary

- Powerful magnitude-7.8 earthquake strikes New Zealand's South Island; multi-billion cost expected
- Major wildfires lead to extensive damage in the United States and Israel
- Severe hailstorms lead to minimal USD144 million insurance bill in southeast Australia

A powerful magnitude-7.8 earthquake and several large aftershocks struck New Zealand's South Island, killing two people and injuring dozens of others. The tremor caused widespread damage in the North Canterbury region of the South Island. Shaking and varying levels of damage was additionally noted throughout the North Island. A preliminary financial statement from the Reserve Bank of New Zealand estimated that damage would range between NZD3.0 to 8.0 billion (USD2.1 to 5.7 billion) and that insured losses would likely range from NZD1.0 to 5.0 billion (USD705 million to 3.5 billion). As of this writing, the New Zealand Earthquake Commission had received 14,660 claims.

A magnitude-5.0 earthquake struck northern Oklahoma with an epicenter just to the west of Cushing. Heavy structural damage occurred to roughly 50 buildings as damage ranged from cracks and fallen bricks to collapsed facades and shattered windows. Disruption to utility supplies also occurred.

An outbreak of wildfires charred parts of eastern Tennessee during the second half of November into early December, claiming at least 14 lives and injuring 134 others. The most catastrophic damage resulted from the Chimney Tops 2 Fire that damaged or destroyed more than 1,750 structures in Sevier County's Gatlinburg and Pigeon Forge. The blaze was cited as the worst in Tennessee in more than 100 years and was expected to have an economic cost well beyond USD100 million.

Significant wildfires—many set by arsonists—swept across parts of Israel, causing extensive damage in rural and urban areas. At least 137 people were injured. Officials determined that at least 1,706 homes were damaged or destroyed. Total economic losses were estimated at ILS2.0 billion (USD520 million).

A series of severe thunderstorms swept across southeastern regions of the Australian state of South Australia that prompted golf ball-sized hail. Additional damage was noted in the neighboring states of Victoria and New South Wales. The Insurance Council of Australia noted that 28,146 claims had been filed with payouts totaling AUD192.6 million (USD144 million). Overall economic losses were even higher.

Two stretches of severe weather impacted the United States. The first event particularly impacted parts of Texas and New Mexico, as large hail and damaging winds led to upwards of USD450 million in economic damage. Insurers cited losses approaching USD300 million. The second occurred at the end of the month in the Southeast and Midwest. Dozens of tornado touchdowns, straight-line winds and hail caused extensive damage in several states. Total economic losses were expected to exceed USD100 million.

Windstorm Nannette tracked through portions of Western Europe. The storm generated severe wind gusts and isolated flooding over portions of the UK, France, Belgium, the Netherlands, and Germany. Total economic losses were expected to well exceed USD100 million.

Hurricane Otto made landfall at Category 2 strength in Nicaragua. At least 17 people were killed along the storm's path through the southwest Caribbean. Total economic losses were estimated near USD50 million.

Severe flooding events were recorded in parts of Italy, France, Saudi Arabia, Indonesia, Hispaniola, and South Africa.

## United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/04-11/06	Severe Weather	Texas, New Mexico	0	45,000+	450+ million
11/06	Earthquake	Oklahoma	0	50+	Millions+
11/16-11/22	Winter Weather	Plains, Midwest, Mid-Atlantic, Northeast	6	Thousands	Millions+
11/26-12/01	Severe Weather	Southeast, Plains, Midwest, Rockies	5	Thousands	100+ million
11/28-12/07	Wildfires	Tennessee	14	1,750+	100+ million

A series of scattered severe thunderstorms impacted southern portions of New Mexico and western Texas from November 4-6. Flash flooding and large quantities of hail caused widespread disruption throughout El Paso, TX, as traffic was ground to a halt. Tens of thousands of homes, vehicles and commercial buildings reported damage across the region—though the most significant damage was concentrated in west Texas. Total economic losses were estimated at USD450 million; while public and private insurers noted losses nearing USD300 million.

A moderate magnitude-5.0 earthquake struck northern Oklahoma on November 6 just one mile (two kilometers) west of Cushing. Significant damage to around 50 buildings was reported. Damage ranged from cracks and fallen bricks to collapsed facades and shattered windows. Disruption to utility supplies also occurred. In the aftermath, the Oklahoma Corporation Commission's Oil and Gas Division ordered the closure or reduction of volume of several disposal wells near the earthquake's epicenter. Total economic losses were estimated into the millions of dollars (USD).

The first major winter storm of the season chilled northern portions of the United States from November 16-22. The storm's effects were felt in portions of the Rockies, Plains, Midwest, Mid-Atlantic, and the Northeast. Nearly 25 inches of snow fell in parts the northern Plains; while more than 54 inches was reported in Redfield, New York. At least six fatalities were blamed on the event.

A broad storm system spawned an outbreak of severe weather and heavy snow across the United States from November 26 to December 1, killing at least five people. The event initially brought very heavy snow across the Rockies and northern Plains before the main focus turned to the Southeast and Midwest as a late-season tornado outbreak occurred. Dozens of confirmed tornadoes touched down, with the worst damage noted in Alabama, Mississippi and Tennessee. Large hail and straight-line winds also led to structural and automobile damage. Total economic and insured losses were estimated to reach well into the millions of dollars (USD).

An outbreak of wildfires charred parts of eastern Tennessee during the second half of November into early December, claiming at least 14 lives and injuring 134 others. The most catastrophic damage resulted from the Chimney Tops 2 Fire that damaged or destroyed more than 1,750 structures in Sevier County's Gatlinburg and Pigeon Forge. The blaze, which charred at least 17,006 acres (6,882 hectares) of land, was cited as the worst in Tennessee in more than 100 years. Total economic losses were estimated to well exceed USD100 million.

## Remainder of North America (Non-US)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/01-11/11	Flooding	Dominican Republic	0	4,100+	Unknown
11/03-11/06	Flooding	Mexico	2	20,000+	Unknown
11/05-11/06	Flooding	Haiti	10	Hundreds	Unknown
11/22-11/26	HU Otto	Panama, Costa Rica, Nicaragua	17	1,500+	50+ million

Heavy rains that impacted portions of the Dominican Republic throughout the first half of November led to an Emergency Declaration for the provinces of Puerto Plata, La Vega, Espaillat, and María Trinidad Sánchez on November 11. More than 20,000 people were displaced as 4,089 homes were damaged by flooding. A further 50 homes were destroyed and 131 communities were isolated as numerous roads and at least seven bridges were damaged. There were no reports of any casualties.

Torrential rainfall prompted flooding in Mexican states of Tamaulipas, Veracruz and Chihuahua on November 3-6, leaving two people dead. More than 35,000 people were estimated to be affected, while more than 20,000 houses were damaged. Floods also damaged infrastructure and left thousands of people without power.

At least 10 people were killed in Haiti following severe thunderstorms on November 5-6. The storms triggered torrential downpours that prompted flooding in portions of North, Northeast, Northwest, and Grand-Anse departments. Downed trees prompted damages to home; while flooding inundated vast areas of agricultural land.

Hurricane Otto made landfall at Category 2 strength in southern Nicaragua on November 24 near San Juan de Nicaragua with sustained wind speeds of 110 mph (175 kph). At least 17 people were killed. Prior to making landfall, Otto sparked significant flooding and landslides throughout the southwestern Caribbean – including Panama and Costa Rica. Thousands of residents were evacuated from low-lying coastal regions of Costa Rica and Nicaragua as the storm would eventually damage or destroy thousands of homes. Total economic damage was estimated to approach USD50 million.

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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There were no major natural disasters during the month of November in South America.

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/05-11/07	Severe Weather	Italy	2	Thousands	10s of millions
11/18-11/26	Wildfires	Israel	0	1,706+	520+ million
11/20-11/21	WS Nannette	Western Europe	0	Thousands	100+ million
11/23-11/25	Flooding	Italy, France	2	Thousands	106+ million

At least two people were killed and several others were injured as an outbreak of severe weather pummeled southwestern portions of Europe from November 5 through 7. Powerful storms developed along a frontal boundary separating two contrasting air masses leading to damaging wind gusts and at least two tornadoes in Italy. Among the hardest-hit areas was Lazio region, Italy, which includes the city of Rome.

Significant wildfires—many set by arsonists—swept across parts of Israel from November 18-26, causing extensive damage in rural and urban areas. At least 137 people were injured. The fires were most severe in the region of Haifa, where more than 60,000 residents were forced to evacuate. Officials determined that at least 1,706 homes were damaged or destroyed. Total economic losses were estimated at ILS2.0 billion (USD520 million).

A powerful low pressure system, officially named Nannette by the Free University of Berlin, swept through portions of Western Europe on November 20-21. The storm generated severe wind gusts over portions of the UK, France, Belgium, the Netherlands, and Germany and brought heavy rainfall to southern England where localized flooding was reported. Total economic losses were expected to well exceed USD100 million.

Portions of Italy experienced significant flooding after a frontal system passed over the Apennine peninsula and adjacent islands, bringing hundreds of millimeters of rain to several regions. At least two people were killed. Thousands of people were affected by flooding in regions of Piedmont, Liguria, Calabria, Sicily, and the French island of Corsica. Total economic losses were expected to exceed EUR 100 million (USD106 million).

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/09	Flooding	South Africa	7	Hundreds	10s of millions

Flash floods claimed at least six lives in Gauteng province, South Africa, on November 9. Portions of KwaZulu-Natal province were also impacted. Flooding was reported throughout and in portions of Ekurhuleni. At least 200 homes were destroyed in Alexandra Township, Johannesburg, while images circulated by local media showed floodwaters sweeping over vehicles and roads: at least 150 cars were affected. The South African Weather Service reported that the flooding was a “1-in-200 year” event.

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/13-11/15	Flooding	Indonesia	0	5,800+	Unknown
11/25	Earthquake	China, Tajikistan	1	12,400+	5.5+ million
11/28-11/29	Flooding	Saudi Arabia	18	Thousands	Millions

Indonesia's National Disaster Management Agency reported that flooding from November 13-15 prompted the displacement of 6,373 residents of West Java Province. Approximately a dozen villages in Karawang Regency were impacted as flooding affected almost 20,000 people. Despite the large extent of the floods, there were no reports of any fatalities or serious casualties. Damage was reported to 5,776 homes and several other buildings.

A United States Geological Survey-registered magnitude-6.6 earthquake struck China's Xinjiang province on November 25 at 10:24PM CST local time (14:24 UTC) with an epicenter centered 49 kilometers (30 miles) east-northeast of Karakul, Tajikistan. China's Ministry of Civil Affairs (MCA) reported that one person was killed and 12,400 homes were damaged or destroyed. Total economic losses were listed at CNY36 million (USD5.5 million).

Strong thunderstorms and torrential rainfall engulfed parts of Saudi Arabia on November 28-29, causing floods that left widespread damage in the Qunfudah governorate. At least 18 people were killed. Saudi Civil Defense reported that there were more than thousands of calls for assistance—primarily due to stranded passengers and flooded homes. Heavy damage to infrastructure was also reported after large swaths of roadways were washed away or covered by debris. High winds additionally caused power lines and poles to be knocked down. Total damage was estimated well into the millions of dollars (USD).

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
11/11	Severe Weather	Australia	0	28,146+	225+ million
11/13	Earthquake(s)	New Zealand	2	15,075+	3.5+ billion

A series of severe thunderstorms swept across southeastern regions of the Australian state of South Australia on November 11. Among the hardest hit areas was the Riverland region, to the northeast of Adelaide, which reported golf ball-sized hail. Portions of Adelaide, Mount Barker, and Tailem Bend were also badly affected. Additional hail damage was noted in the neighboring states of Victoria and New South Wales. The Insurance Council of Australia noted that 28,146 claims had already been filed with payouts totaling AUD192.6 million (USD144 million). Overall economic losses were even higher.

A powerful magnitude-7.8 earthquake and several large aftershocks struck New Zealand's South Island in the early morning hours of November 13, killing two people and injuring dozens of others. The tremor caused widespread damage in the North Canterbury region of the South Island. Shaking and varying levels of damage was additionally noted throughout the North Island, including in the cities of Wellington and Auckland. Among the worst affected communities were the towns of Kaikoura and Waiiau, located nearest the epicenter. The Reserve Bank of New Zealand estimated that damage would range between NZD3.0 to 8.0 billion (USD2.1 to 5.7 billion) and that insured losses would likely range from NZD1.0 to 5.0 billion (USD705 million to 3.5 billion). The government would cover a portion of the remaining costs.

## Appendix

### Updated 2016 Data: January-October

#### United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/04-01/08	Flooding	California	0	10,000+	125+ million
01/09	Severe Weather	Florida	0	200+	10+ million
01/17	Severe Weather	Florida	2	200+	20+ million
01/21-01/24	Winter Weather	Mid-Atlantic, Northeast, Southeast	58	25,000+	1.0+ billion
01/31-02/01	Severe Weather	California	0	12,500+	175+ million
02/01-02/03	Winter Weather	Plains, Midwest, Northeast	1	5,000+	100+ million
02/08-02/09	Winter Weather	Northeast, Mid-Atlantic	0	2,000+	25+ million
02/13	Earthquake	Oklahoma	0	Hundreds	Unknown
02/13-02/16	Winter Weather	Northeast, Midwest, Southeast	6	20,000+	700+ million
02/19-02/20	Severe Weather	Midwest	0	25,000+	250+ million
02/22-02/25	Severe Weather	Plains, Midwest, Southeast, Northeast	10	100,000+	1.2+ billion
02/29-03/01	Severe Weather	Plains, Southeast	0	Thousands	25+ million
03/04-03/12	Severe Weather	Plains, Southeast, Midwest, West	6	60,000+	1.5+ billion
03/13-03/14	Severe Weather	Plains, Midwest, Southeast	0	20,000+	175+ million
03/13-03/15	Severe Weather	West, Midwest, Plains	1	10,000+	175+ million
03/17-03/18	Severe Weather	Plains, Southeast	0	135,000+	1.4+ billion
03/22-03/25	Severe Weather	Rockies, Plains, Southeast, Midwest	0	175,000+	2.5+ billion
03/26-03/27	Severe Weather	Midwest, Southeast	0	10,000+	75+ million
03/30-04/01	Severe Weather	Plains, Southeast, Midwest	0	20,000+	200+ million
04/02-04/04	Severe Weather	Midwest, Mid-Atlantic, Northeast	2	60,000+	450+ million
04/06-04/07	Severe Weather	Southeast, Midwest	0	2,000+	10+ million
04/10-04/15	Severe Weather	Plains, Southeast	1	350,000+	4.3+ billion
04/15-04/19	Flooding	Plains, Rockies	9	70,000+	2.0+ billion
04/24-04/28	Severe Weather	Plains, Midwest, Southeast, Mid-Atlantic	1	100,000+	800+ million
04/29-05/03	Severe Weather	Plains, Midwest, Southeast, Mid-Atlantic	6	150,000+	1.8+ billion
05/07-05/10	Severe Weather	Plains, Midwest, Mississippi Valley	2	90,000+	1.0+ billion
05/11-05/12	Severe Weather	Plains, Midwest	0	90,000+	950+ million
05/16-05/19	Severe Weather	Texas, Oklahoma	0	17,000+	175+ million
05/21-05/28	Severe Weather	Plains, Midwest	1	100,000+	1.3+ billion
05/29-06/02	Severe Weather	Plains	12	25,000+	300+ million
06/06-06/07	Severe Weather	Colorado	0	15,000+	175+ million
06/16-06/18	Severe Weather	Mid-Atlantic, Southeast, Northeast	0	20,000+	275+ million
06/16-06/18	Severe Weather	Plains, Midwest	0	17,500+	175+ million
06/22-06/26	Severe Weather	Mid-Atlantic, Midwest	23	25,000+	750+ of Millions
06/23-06/30	Wildfire	California	2	2,000+	150+ million
06/27-06/29	Severe Weather	Rockies, Plains	0	10,000+	200+ million
07/05-07/07	Severe Weather	Plains, Midwest, Mid-Atlantic, Southeast	0	20,000+	200+ million



<b>Date</b>	<b>Event</b>	<b>Location</b>	<b>Deaths</b>	<b>Structures/ Claims</b>	<b>Economic Loss (USD)</b>
07/07-07/09	Severe Weather	Rockies, Midwest, Southeast	0	40,000+	375+ million
07/13-07/15	Severe Weather	Rockies, Plains, Midwest, Southeast	7	50,000+	500+ million
07/19-07/21	Severe Weather	Midwest, Ohio Valley	3	10,000+	125+ million
07/20-07/21	Severe Weather	Midwest	0	10,000+	140+ million
07/22-08/01	Wildfire	California	2	250+	100+ million
07/22-09/30	Wildfire	California	1	100+	250+ million
07/28-07/29	Severe Weather	Rockies, Plains	0	115,000+	1.6+ billion
07/30-08/01	Flooding	Mid-Atlantic, Northeast	2	15,000+	700+ million
08/02-08/04	Flooding	Desert Southwest	0	Thousands	10s of millions
08/09-08/16	Flooding	Louisiana, Mississippi, MS Valley	13	250,000+	10 to 15 billion
08/13-08/31	Wildfires	West	0	Thousands	100+ million
08/13-08/31	Wildfire	California	0	2,000+	100+ million
08/16-08/31	Wildfire	California	0	2,000+	100+ million
08/23-08/24	Flooding	Midwest	1	Thousands	100+ million
08/24-08/25	Severe Weather	Midwest	0	3,500+	125+ million
09/01-09/08	HU Hermine	Southeast, Mid-Atlantic	3	50,000+	800+ million
09/03	Earthquake	Oklahoma	0	Hundreds	10s of millions
09/21-09/30	Flooding	Iowa, Wisconsin, Minnesota	1	30,000+	550+ million
10/07-10/09	HU Matthew	Southeast, Mid-Atlantic	49	500,000+	Up to 10 billion
10/12-10/16	Severe Weather	Pacific Northwest	0	Hundreds	10s of millions

## Remainder of North America (Non-US)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-02/29	Drought	Haiti	0	Unknown	84+ million
02/23-02/25	Winter Weather	Canada	0	5,000+	25+ million
02/28	Flooding	Haiti	5	10,000+	Millions
03/09-03/10	Severe Weather	Canada	1	5,000+	50+ million
03/24-03/25	Winter Weather	Canada	0	10,000+	100+ million
04/23-04/24	Flooding	Haiti	6	4,400+	Unknown
04/27-05/01	Flooding	Haiti, Dominican Republic	1	2,500+	Millions
05/02-05/31	Wildfire	Canada	0	45,000+	4.5+ billion
05/26-05/31	Flooding	Haiti	1	2,900+	Unknown
06/09	Earthquake	Nicaragua, Honduras	0	3,000+	Millions
06/24-06/25	Severe Weather	Canada	0	4,000+	44+ million
06/28-06/30	Severe Weather	Canada	0	8,500+	85+ million
07/08	Severe Weather	Canada	0	5,000+	40+ million
07/08-07/11	Severe Weather	Canada	0	5,000+	50+ million
07/15-07/16	Severe Weather	Canada	0	7,000+	80+ million
07/18-07/20	Severe Weather	Canada	0	10,000+	100+ million
07/22	Severe Weather	Canada	0	5,000+	95+ million
07/27	Severe Weather	Canada	0	7,000+	67+ million
07/30-08/01	Severe Weather	Canada	0	42,000+	435+ million
08/02-08/10	HU Earl	Mexico, Central America, Caribbean	67	15,000+	250+ million
09/06-09/08	HU Newton	Mexico	11	2,000+	50+ million
09/14-09/18	Flooding	Mexico	13	2,000+	Unknown
09/28-09/30	Flooding	Canada	0	6,000+	150+ million
09/29-09/30	Flooding	Mexico	5	2,000+	10s of millions
09/28-10/07	HU Matthew	Caribbean	552+	250,000+	5.5+ billion
10/09-10/10	HU Matthew	Canada	0	Thousands	10s of millions
10/13	HU Nicole	Bermuda	0	Hundreds	Millions
10/18-10/20	Flooding	Central America	10	81,000+	Unknown

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/25	Flooding	Ecuador	9	2,000+	10+ million
01/09-01/15	Flooding	Brazil	3	25,000+	100+ million
02/20-02/25	Flooding	Peru	1	2,000+	Millions
03/10-03/11	Flooding	Brazil	30	5,000+	100+ million
04/04-04/10	Flooding	Argentina, Uruguay	0	7,500+	1.3+ billion
04/15-04/18	Flooding	Chile	12	5,000+	100+ million
04/15-04/18	Severe Weather	Uruguay	8	5,000+	25+ million
04/16	Earthquake	Ecuador	673	10,000+	3.4+ billion
08/14	Earthquake	Peru	4	2,600+	Unknown

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/08	Winter Weather	Central & Northern Europe	22	Unknown	Unknown
01/12-01/14	Winter Weather	Central & Northern Europe	3	Hundreds	10s of millions
01/25	Earthquake	Spain, Morocco	1	Hundreds	13+ million
01/29-01/30	WS Marita	UK, Scandinavia	1	10,000+	275+ million
02/01-02/02	WS Norkys	United Kingdom	0	Thousands	75+ million
02/08	WS Ruzica	UK, France, Scandinavia	0	Thousands	275+ million
02/27-02/29	Severe Weather	Italy	6	Thousands	25+ million
03/01-03/02	WS Aloisia	UK, Ireland	3	2,000+	160+ million
03/06-03/08	Flooding	Serbia, Croatia, Montenegro	0	1,000+	100+ million
03/09-03/10	Flooding	United Kingdom	0	1,000+	10s of millions
03/27-03/29	WS Jeanne	UK, Scandinavia	1	25,000+	300+ million
04/16-04/22	Flooding	Russia	0	8,000+	Millions
05/23-06/01	Severe Weather	Czech Republic	0	24,000+	80+ million
05/26-06/06	Flooding	Germany, France, Austria, Poland	17	250,000+	5.5+ billion
06/04-06/06	Severe Weather	Russia	0	3,000+	Unknown
06/23-06/24	Severe Weather	Netherlands	0	5,000+	1.1+ billion
07/22	Flooding	Luxembourg	0	Thousands	50+ million
08/06-08/07	Flooding	Macedonia	22	5,000+	75+ million
08/08-08/20	Wildfires	Portugal, France, Spain	5	200+	250+ million
08/24	Earthquake	Italy	297	Thousands	5.0+ billion
09/06-09/07	Flooding	Greece	5	Thousands	56+ million
09/11	Earthquake	Macedonia	0	Hundreds	Millions
10/26	Earthquake	Italy	1	Thousands	TBD
10/30	Earthquake	Italy	0	Thousands	TBD

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/10	Heatwave	South Africa	11	Unknown	Unknown
01/01-02/15	Flooding	Burundi	52	5,100+	13+ million
01/01-03/31	Drought	Namibia	0	Unknown	60+ million
01/01-06/30	Drought	South Africa	0	Unknown	250+ million
01/01-06/30	Drought	Zimbabwe	0	Unknown	1.6+ billion
02/29	Flooding	Angola	54	Thousands	Unknown
03/06-03/09	Flooding	Angola	6	550+	Unknown
03/10	Flooding	Kenya	3	1,000+	Unknown
04/02-04/07	Flooding	Ethiopia	28	1,000+	Unknown
04/06-04/11	Flooding	Somalia, Malawi	19	10,000+	Millions
04/12-04/18	Flooding	Tanzania	3	3,000+	Unknown
04/13-04/17	Flooding	Uganda	0	5,000+	2.7+ million
04/16-04/22	Flooding	Angola	19	5,000+	Unknown
04/29-05/02	Flooding	Kenya	39	2,000+	Unknown
05/07-05/08	Landslide	Rwanda	50	500+	Unknown
05/09	Landslide	Ethiopia	100	Unknown	Unknown
06/01-07/31	Flooding	Niger	14	2,000+	Unknown
06/13	Flooding	Ghana	10	Unknown	Unknown
07/01-08/31	Flooding	Sudan, South Sudan	129	41,000+	Unknown
07/12-08/09	Flooding	Mali, Burkina Faso	26	10,000+	Unknown
07/13-07/15	Flooding	Sudan	13	2,000+	Unknown
07/27	Severe Weather	South Africa	7	Thousands	250+ million
08/14-09/07	Severe Weather	Nigeria	28	15,000+	Unknown
09/10	Earthquake	Tanzania	23	16,500+	458+ million
09/20	Flooding	Nigeria	29	17,500+	Unknown
10/27-10/29	Flooding	Egypt	28	Thousands	11+ million

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-03/31	Drought	Philippines	0	Unknown	41+ million
01/01-06/30	Drought	India	0	Unknown	5.0+ billion
01/01-06/30	Drought	Vietnam	0	Unknown	675+ million
01/01-06/30	Drought	Thailand	0	Unknown	3.3+ million
01/03	Earthquake	India	22	1,000+	75+ million
01/21	Earthquake	China	0	2,200+	15+ million
01/20-01/26	Winter Weather	China, Taiwan, Korea, Japan, Thailand	116	25,000+	2.0+ billion
01/26-01/29	Flooding	China	11	1,000+	20+ million
02/01-05/02	Wildfire	India, Nepal	18	Unknown	Unknown
02/03	Winter Weather	India	10	Unknown	Unknown
02/05-02/09	Flooding	Indonesia	6	4,000+	Millions
02/06	Earthquake	Taiwan	117	Thousands	750+ million
02/18-02/19	Severe Weather	China	0	1,600+	62+ million
02/19-02/24	Flooding	Indonesia, Malaysia	1	7,200+	Millions
02/21-02/26	Winter Weather	China	0	1,000+	15+ million
03/03-03/09	Severe Weather	China	0	4,000+	315+ million
03/07-03/08	Flooding	Indonesia	6	2,500+	Unknown
03/07-03/11	Winter Weather	China	0	1,000+	140+ million
03/08-03/11	Severe Weather	United Arab Emirates, Oman	0	15,000+	500+ million
03/09-03/29	Flooding	Pakistan	141	1,100+	Millions
03/13	Flooding	Indonesia	5	5,900+	Unknown
03/19-03/22	Severe Weather	China	13	82,000+	170+ million
03/25-03/28	Severe Weather	China	0	2,000+	77+ million
03/26-03/29	Winter Weather	China	0	Unknown	146+ million
04/01-04/08	Flooding	China	10	30,000+	45+ million
04/01-04/15	Heatwave	India	300	Unknown	Unknown
04/02-04/08	Flooding	Pakistan, Afghanistan	152	5,000+	Millions
04/08-04/15	Flooding	Saudi Arabia, Yemen, Oman	47	25,000+	100+ million
04/10-04/12	Severe Weather	China	8	22,000+	130+ million
04/13	Earthquake	Myanmar, Bangladesh, India	2	Hundreds	Unknown
04/14 & 04/16	Earthquake	Japan	120	260,000+	38+ billion
04/16-04/17	Flooding	Afghanistan	31	Unknown	Unknown
04/16-04/19	Severe Weather	China	6	2,000+	14+ million
04/20-04/28	Flooding	China	20	16,000+	97+ million
04/21-04/23	Severe Weather	Myanmar	8	10,000+	Millions
04/22-04/25	Flooding	India	18	Thousands	150+ million
04/24-04/27	Severe Weather	China	0	2,000+	216+ million
04/28-05/03	Flooding	China	3	6,000+	31+ million
04/29-05/03	Severe Weather	Myanmar	18	17,900+	2.6+ million
05/01-05/05	Severe Weather	China	4	31,500+	115+ million
05/01-08/31	Flooding	China	475	500,000+	28+ billion
05/09-05/12	Flooding	Tajikistan, Afghanistan	10	5,000+	Unknown

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/10-05/15	Flooding	Indonesia	20	Thousands	Unknown
05/12-05/14	Severe Weather	Bangladesh, India, Myanmar	67	Unknown	Unknown
05/14-05/15	Severe Weather	China	1	1,300	93+ million
05/14-05/23	CY Roanu	Sri Lanka, Southern Asia	135	200,000+	1.8+ billion
05/19	Severe Weather	China	0	Unknown	91+ million
05/22	Landslide	India	10	Unknown	Unknown
05/22	Landslide	Yemen	20	Unknown	Unknown
05/22	Earthquake	China	0	46,166+	Unknown
05/22-05/23	Winter Weather	China	0	Unknown	61+ million
05/24-05/30	Severe Weather	China	0	5,000+	354+ million
06/01	Severe Weather	Pakistan	15	Unknown	Unknown
06/01-08/31	Drought	China	0	N/A	6.0+ billion
06/02-6/08	Severe Weather	China	12	50,000+	768+ million
06/06-06/14	Severe Weather	China	4	21,000+	764+ million
06/08-06/11	Flooding	Myanmar	12	4,500+	Unknown
06/12	Severe Weather	India	11	Unknown	Unknown
06/16-06/23	Severe Weather	China	102	25,000+	500+ million
06/17-06/21	Flooding	Indonesia	62	25,000+	25+ million
06/20-06/21	Severe Weather	India	93	Unknown	Unknown
06/20-06/23	Flooding	Japan	7	2,000+	100+ million
06/25-07/01	Flooding	India	55	Thousands	100+ million
06/26-06/29	Severe Weather	China	1	2,000+	165+ million
06/30-07/01	Flooding	Indonesia	0	14,100+	Unknown
07/01-07/03	Severe Weather	China	0	0	117+ million
07/01-07/15	Flooding	India	90	125,000+	100+ million
07/02-07/15	Flooding	Pakistan	46	100+	Unknown
07/08-07/11	Severe Weather	China	4	5,700+	50+ million
07/08-07/12	STY Nepartak	Philippines, Taiwan, China	111	50,000+	1.4+ billion
07/16-07/24	Flooding	China	289	500,000+	4.7+ billion
07/19	Flooding	Afghanistan	17	Unknown	Unknown
07/21-07/27	Flooding	Nepal	122	5,000+	Unknown
07/22-07/24	Flooding	North Korea	14	250	Unknown
07/22-08/04	Flooding	Bangladesh	60	255,000+	10+ million
07/24	Flooding	Indonesia	4	2,600+	Unknown
07/24	Severe Weather	China	4	9,700+	50+ million
07/24-08/19	Flooding	India	560	100,000+	150+ million
07/25-08/12	Flooding	Myanmar	6	45,000+	Millions
07/27-07/28	TS Mirinae	China, Vietnam	5	2,000+	30+ million
07/28-07/31	Flooding	China	4	7,000	91 million
07/28-08/01	Severe Weather	China	3	2,400+	21+ million
07/31-08/03	Flooding	China	5	3,000+	142+ million
07/31-08/03	TY Nida	Philippines, China, Vietnam	0	20,000+	272+ million
08/02-08/05	Flooding	Vietnam	12	1,000+	10+ million
08/04-08/07	Severe Weather	China	19	4,800+	23+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/05-08/08	Flooding	Pakistan	32	580+	Unknown
08/05-08/10	Flooding	China	23	12,300+	130+ million
08/07-08/10	Flooding	India	13	15,000+	10s of millions
08/08-08/16	Flooding	Philippines	26	Thousands	10+ million
08/15-08/16	Flooding	Thailand	3	7,500+	Millions
08/18-08/22	TS Dianmu	China, Vietnam	17	4,100+	273+ million
08/19-08/22	Flooding	India	40	10,000+	312+ million
08/20-08/25	Flooding	China	2	11,400+	96+ million
08/20-08/25	Flooding	China	2	12,000+	165+ million
08/20-08/25	Severe Weather	China	0	400+	70+ million
08/22-08/23	TS Mindulle	Japan	2	5,000+	10s of millions
08/24	Earthquake	Myanmar	4	1,000+	1.0+ million
08/26-08/30	Flooding	China	8	8,400+	76+ million
08/27-08/28	Flooding	Pakistan	10	Unknown	Unknown
08/30-09/01	TY Lionrock	Japan, China, Korean Peninsula	550+	50,000+	325+ million
09/04-09/06	Severe Weather	China	2	5,000+	69+ million
09/05-09/06	Severe Weather	China	0	6,400+	54+ million
09/08-09/13	Severe Weather	China	0	2,000+	175+ million
09/12	Earthquake	South Korea	0	6,000+	21+ million
09/14-09/16	STY Meranti	China, Taiwan, Philippines	44	70,600+	2.5+ billion
09/18-09/22	Flooding	China	23	4,100+	21+ million
09/19-09/22	TY Malakas	Taiwan, Japan	1	5,000+	300+ million
09/20-09/22	Flooding	Indonesia	53	2,550+	22+ million
09/21-09/29	Flooding	India	28	40,000+	479+ million
09/26-09/29	TY Megi	China, Taiwan	43	25,000+	940+ million
10/1-10/10	Flooding	Thailand	4	68,000+	Millions
10/05-10/06	TY Chaba	South Korea, Japan	10	33,100+	1.0+ billion
10/13-10/15	TS Aere	Vietnam	34	132,000+	10s of millions
10/16-10/19	TY Sarika	Philippines, China	2	19,500+	890+ million
10/19-10/21	STY Haima	Philippines, China	14	95,000+	945+ million
10/30-11/05	Flooding	Vietnam	15	41,000+	22+ million
10/31-11/02	Flooding	China	0	Unknown	65+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/03-01/05	Flooding	Australia (NSW)	0	500	25+ million
01/06-01/13	Bushfire	Australia (WA)	2	1,400+	100+ million
01/14	Severe Weather	Australia (NSW)	1	2,000+	25+ million
01/29-01/30	Severe Weather	Australia (NSW)	0	1,300+	27+ million
02/14	Earthquake	New Zealand	0	7,200+	50+ million
02/16-02/22	TC Winston	Fiji, Tonga	44	46,000+	1.4+ billion
03/23-03/24	Flooding	New Zealand	0	2,000+	25+ million
04/04-04/07	CY Zena	Fiji	2	2,000+	10s of millions
06/04-06/06	Severe Weather	Australia	4	43,500+	375+ million
07/16-07/17	Severe Weather	Australia (South Australia & Victoria)	0	Thousands	20+ million
08/22	Earthquake	Australia (Queensland)	0	1,000+	Millions
09/13-09/15	Flooding	Australia (SA, VIC)	1	2,000+	10+ million
09/20-09/30	Flooding	Australia (NSW)	0	2,300+	765+ million
09/28-09/30	Severe Weather	Australia (SA)	0	5,000+	75+ million
10/08-10/09	Severe Weather	Australia (VIC)	1	5,000+	10+ 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 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.



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