



# Global Catastrophe Recap

July 2018

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## Executive Summary

- Severe droughts and heatwaves expected to spawn multi-billion-dollar cost around the globe
- Major wildfires cause extensive damage and loss of life in Northern California and Greece
- Historic rainfall prompts destructive flooding and landslides in Japan; 230 people left dead/missing

Extended periods of below-average rainfall and above-average temperatures in multiple regions of the world led to worsening drought-related and wildfire conditions during the month of July. Some of the hardest-hit sectors from a financial perspective was agriculture, forestry, water management, fisheries, and other industries. Preliminary aggregated estimates of economic losses entirely due to harvest reduction and impacted forestry exceed multiple billions of dollars (USD).

One of the most significant situations was in Northern Europe, where a long-term rainfall deficit left one of the deepest droughts on record, comparable to the 2003 event. According to various industry estimates, German farmers alone could face economic losses of EUR2.5 billion (USD2.9 billion). When combining estimates from other affected European countries, the ongoing drought could result in losses beyond USD4 billion. Other financially costly drought events affected agriculture in Australia and Central America. An extensive heatwave also left more than 150 people dead in Japan and South Korea.

The Carr Fire became one of top 10 most destructive wildfires on record in California, after being ignited outside of Redding. Six people were killed and more than 1,600 structures were destroyed. Another 278 were damaged. The total economic cost from the Carr Fire was anticipated to approach and exceed USD1 billion. Insurers were also expected to pay claims nearing the billion-dollar threshold as well. Another Northern California wildfire, the Mendocino Complex Fire, destroyed 143 structures and became one of the top 5 largest fires on record in California.

The deadliest wildfire event on record in Europe since 1900 left devastating impacts in the Mati, Eastern Attica region of Greece. At least 92 fatalities were confirmed by the authorities. This fire and others in Attica destroyed at least 905 structures and damaged 740. Elsewhere in Europe, Sweden battled the most significant wildfire outbreak in modern history with damage exceeding USD100 million.

Historic rainfall amounts recorded in Japan in early July prompted significant flash flooding and mudslides, leaving at least 230 people dead or missing. Damage assessments revealed that nearly 50,000 homes were damaged or destroyed. The General Insurance Association of Japan cited that 48,000 claims had already been paid, with the preliminary payout valued at USD711 million.

Elsewhere, notable flooding events occurred in Arizona and US Northeast, Nigeria, Russia's Far East, India and multiple countries in Southeastern Asia, including Myanmar, Vietnam, Laos, Cambodia, and Philippines. Seasonal flooding in China prompted aggregated economic losses nearing USD1 billion.

Multiple typhoons in the Western Pacific Ocean Basin left notable damage in parts of China, Vietnam, and Japan. The costliest was Typhoon Maria, which caused nearly USD500 million in economic damage in China. Other storms that tracked across Southeast Asia were Sonh-Tinh, Ampil, and Jongdari.

Several outbreaks of severe weather led to widespread damage across parts of the United States, Canada, France, Germany, Italy, and China during July.

Major earthquakes left severe damaged and injuries in Iran (July 22) and Indonesia (July 28).

## United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/01-07/31	Wildfire	Western U.S.	1	Hundreds	100s of Millions
07/08-07/10	Flooding	Arizona	0	15,000+	200+ million
07/19-07/22	Severe Weather	Plains, Midwest, Southeast	18	60,000+	560+ million
07/21-07/26	Flooding	Northeast, Mid-Atlantic, Southeast	1	Thousands	100+ million
07/22-07/24	Severe Weather	Colorado	1	Thousands	Millions
07/26-07/29	Severe Weather	Rockies, Plains, Southwest	0	Thousands	100s of Millions
07/24-08/01	Wildfires	California	6	Thousands	1.0+ billion

The combination of very warm air, low relative humidity levels, and extremely dry soils led to continued ideal wildfire conditions across the Western U.S. throughout July. Large fires were noted in Colorado, California, Utah, Nevada, and New Mexico. The most damaging blaze was the Spring Creek Fire in southern Colorado that damaged or destroyed nearly 300 homes in one neighborhood alone. That fire caused insurance payments exceeding USD50 million. Total economic damage for all of the Western U.S. fires – including firefighting costs and the resultant fire damage – was estimated to well exceed USD100 million.

The seasonal Southwest Monsoon brought rounds of severe weather and torrential rainfall to the state of Arizona from July 8-10. Most of the damage resulted from damaging straight-line winds that gusted up to 80 mph (130 kph), including in the greater Phoenix metro region. The high winds downed trees and power lines onto homes, businesses, vehicles, and other structures. Additional damage reports resulting from hail and isolated flash flooding were also noted. Total economic losses were estimated to approach USD200 million, with public and private insurers covering roughly half of that total.

Widespread severe thunderstorms impacted the eastern two-thirds of the country from July 19-22, leading to considerable damage. The most significant damage occurred in Iowa after several tornadoes, including two rated EF3, devastated the towns of Pella and Marshalltown. Other areas in the Plains, Midwest, and Southeast recorded large hail and straight-line wind impacts. No fewer than 10 states cited damage. Total economic losses were anticipated to exceed USD550 million, with public and private insurers paying more than USD400 million in claims.

A stalled frontal boundary and abundant tropical moisture helped spawn torrential rainfall from the Northeast to the Carolinas from July 21-26. At least one person was killed. Some areas in North Carolina and Maryland recorded more than 15.00 inches (381 millimeters), which led to instances of flash flooding after numerous rivers and streams burst their banks. Some normally dry areas saw floodwaters reach several feet (meters) in height. This was particularly true in portions of central and eastern Pennsylvania – notably around Dauphin, Lebanon and Schuylkill counties – and areas close to Washington DC. Total economic damage was anticipated to exceed USD100 million.

An active weather pattern from July 22-24 set up across Colorado. With a weak surface low and a frontal boundary in place, numerous strong to severe thunderstorms prompted large hail and winds gusting in excess of 65 mph (100 kph) to areas outside of Denver and near Colorado Springs and Aurora. Torrential rainfall additionally spawned isolated flash flooding in the Manitou Springs. One person was killed.

A stalled weather pattern spawned consecutive days of powerful thunderstorms across parts of the U.S. Rockies and Plains from July 26-29, leading to considerable damage in multiple states. The period was marked by hail larger than baseballs, straight-line winds gusting beyond 90 mph (150 kph), and several tornado touchdowns. Among the hardest-hit states included Colorado, Wyoming, Nebraska, Kansas, Montana, and South Dakota based on damage reports to residential and commercial properties, vehicles, and agriculture. Total economic and insured losses were expected to exceed USD100 million.

An intense and fast-moving wildfire was ignited in Northern California on July 23 before later entering the western edge of the city of Redding on July 26-27. At least six people were killed and several others were injured. The Carr Fire – which burned more than 165,000 acres (66,773 hectares) of land – damaged or destroyed no fewer than 1,882 structures. It is one of the Top 10 most destructive and Top 15 largest fires on record in California. Total economic damage, including physical damage and firefighting costs, was expected to exceed USD1 billion. Insured losses are additionally anticipated to approach and/or surpass the billion-dollar threshold. Another significant fire was the Mendocino Complex Fire, which combined the Ranch and River fires. It was poised to become the largest fire on record in California. At least 169 structures were damaged or destroyed.

## Remainder of North America (Non-US)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/01-07/31	Drought	Central America	0	Unknown	200+ million
07/07-07/10	Severe Weather	Canada	0	Thousands	Millions
07/09-07/11	HU Beryl (Remnants)	Puerto Rico, Hispaniola	0	2,000+	Millions
07/13-07/14	Severe Weather	Canada	0	Thousands	Millions

A continued rainfall deficit brought further severe drought conditions across several Central American countries during July, resulting in notable losses to the agricultural sector. At least 500,000 people were affected in Guatemala as 68,000 hectares (168,000 acres) of agricultural land was damaged. An initial economic tally was preliminarily estimated at GTQ450 million (USD60 million). A major drought also affected El Salvador, as thousands of local corn producers lost most of their crops. Officials in Panama estimated the drought impact USD72 million. Further harvest reduction was noted in Honduras.

A series of thunderstorms accompanied by strong winds and hail formed across Alberta and Saskatchewan in Canada between July 7-10. At least eight confirmed tornadoes also touched down. The worst damage resulted from large hail up to the size of baseballs pelting homes, vehicles and crops. Local insurance divisions in Saskatchewan alone, especially around Val Marie, cited nearly 1,000 filed claims. Total economic and insured losses were estimated in the millions (USD).

Remnants of Hurricane Beryl brought heavy rain to Puerto Rico and the Dominican Republic after the storm was downgraded to a tropical wave. From July 9-11, southeast Puerto Rico received several inches of rainfall and periods of heavy wind gusts that caused some isolated landslides and inundation. In the Dominican Republic, flooding affected the provinces of San Cristóbal and Santo Domingo (including Distrito Nacional). More than 1,500 houses were affected.

Severe thunderstorms swept across the Canadian provinces of Alberta and Saskatchewan on July 13-14. The most extensive damage was noted in Alberta, notably the Red Deer area, after up to softball-sized hail pelted structures and vehicles. Heavy rains also led to isolated flooding around Edmonton. Total economic and insured losses were expected to reach well into the millions (USD).

## South America

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

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/01-07/31	Drought	Northern & Central Europe	0	Unknown	4.0+ billion
07/03-07/05	Severe Weather	France, Germany, Italy	0	Hundreds	10s of millions
07/08-07/25	Wildfire	Sweden	0	Unknown	102+ million
07/15	Severe Weather	France, Germany	0	Hundreds	Millions
07/18-07/19	Flooding	Poland, Slovakia	0	Hundreds	50+ million
07/23-07/24	Wildfire	Greece	92+	1,645+	10s of millions

Persistent drought and high temperatures that impacted northern half of Europe will likely result in significant losses for local agricultural production. The meteorological pattern also generated favorable conditions for spread of wildfires, which have been particularly severe in Sweden. The most impacted countries include Germany, Denmark, Sweden, and others. Farmers in Germany alone reported forecasted losses in multiple billions of EUR.

Widespread, intense thunderstorms incurred notable damage across Western Europe in early July; most of the damage occurred during July 4. Among the most affected areas was southwestern France, where large hailstones damaged agricultural land. German farmer insurance association reported losses of up to EUR20 million (USD23 million) on an extent of 40,000 hectares (99,000 acres)

Record-setting wildfires burned across parts of Sweden throughout the month of July. According to the Swedish Forestry Agency, the fires burned approximately 25,000 hectares (61,750 acres) of forest, or 2.6 million cubic meters of wood, worth SEK900 million (USD102 million). Among the hardest-hit were regions Gävleborg, Jämtland and Dalarna. The event will have notable impact on local insurance industry. The largest non-life insurer in Sweden expects the total loss to be higher than SEK400 million (USD45 million).

A damaging hailstorm swept through southwestern France on July 15 and caused notable losses on viticulture in the region around Bordeaux. According to estimates, several thousands of hectares were affected and damage will go into the millions of EUR. Further damage was also reported from the vicinity of Lyon. Hundreds of basements were flooded on the same day in Southwestern Germany due to intense rainfall, particularly in Saarland, northern Baden-Württemberg and parts of Rheinland-Pfalz.

Heavy rainfall caused flash flooding in a mountainous region near the border of Poland and Slovakia on July 18-19. The highest 48-hour rainfall total (163 millimeters / 6.4 inches) was measured in Tatranská Javorina on the Slovak side of the Tatra mountains. The rains caused local streams to burst their banks, which resulted mainly in damage on infrastructure, hiking trails and forestry. In Poland, several municipalities in the Malopolskie region were affected, particularly under the Tatra and Gorce mountain ranges. Total combined damage was estimated to reach as high as USD50 million.

Major wildfires in Greek Attica region left at least 92 people dead; becoming the deadliest wildfire event in Europe in history and the second deadliest wildfire worldwide during the 21<sup>st</sup> century. The impacted area in Eastern Attica was devastated, although its spatial extent was limited only to several villages on the eastern coast. Roughly 98 percent of Mati village, a popular tourist and holiday destination, was burned. Significant damage was also reported from Kokkino Limanaki, where 50 percent of the village was affected, and also from Rafina, Neos Voutzas and Agia Marina. Total economic damage was expected well into the millions (EUR).

## Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/08	Landslide	Turkey	24	N/A	Unknown
07/22	Earthquake	Iran	0	1,000+	Millions

Prolonged heavy rain triggered a landslide in northwestern Turkey on July 8 resulting in a train derailment. More than 100 people were injured and 24 people were killed. The accident occurred near Sarilar village in Tekirdag province.

A shallow magnitude-5.9 earthquake affected the Tazeh Abad district of Kermanshah, Iran on July 22. At least 287 people were injured. The main earthquake was followed by dozens of aftershocks. Assessments indicated that the tremors affected 43 settlements and damaged or destroyed more than 1,000 structures. Total economic losses were expected to reach into the millions (USD).

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/13-07/16	Flooding	Nigeria	71	600+	Unknown

Heavy rainfall between July 13-16 caused widespread flooding in the states of Yobe, Edo, Ogun and Katsina in Nigeria. At least 71 people were killed. Most of the casualties occurred after rivers overflowed their banks and inundated many villages. Hundreds of homes were destroyed.

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/28-07/05	Flooding	China	11	12,000+	278+ million
06/29-07/03	Severe Weather	China	5	8,000+	157+ million
07/02-07/03	TY Prapiroon	Japan, South Korea	4	Hundreds	10s of Millions
07/05-07/08	Flooding	Japan	229	53,000+	2.0+ billion
07/01-07/25	Heatwave	Japan, Korea, China	150+	N/A	Unknown
07/01-07/03	Flooding	Pakistan, India, Nepal	21	Hundreds	Millions
07/07-07/11	Severe Weather	China	1	300+	33+ million
07/08-07/25	Flooding	Russia	0	6,000+	16+ million
07/10-07/11	Flooding	China	19	18,300+	580+ million
07/10-07/12	STY Maria	China, Taiwan	2	15,000+	490+ million
07/13-07/20	Flooding	China	0	500+	53+ million
07/17-07/24	TS Sonh-Tinh	Vietnam, China, Laos	34	32,000+	235+ million
07/17-07/31	Flooding	Philippines	13	5,050+	61+ million
07/17-07/26	Flooding	Laos, Cambodia	150+	2,000+	Millions
07/20-07/24	Flooding	India	20	8,300+	Unknown
07/22-07/25	TS Ampil	China	1	6,000+	175+ million
07/22-07/25	Severe Weather	China	6	15,000+	295+ million
07/27-08/03	TY Jongdari	Japan, China	0	Thousands	100+ Million
07/27-07/29	Flooding	India	33	300+	Unknown
07/28	Earthquake	Indonesia	17	15,000+	23+ million
07/28-07/30	Flooding	Myanmar, Thailand	19	Thousands	Unknown

Flood conditions in the Yangtze River basin continued to cause widespread damage in the region. Between June 28-July 5, flooding and thunderstorms affected nearly 168,000 hectares (415,000 acres) of crops, damaged or destroyed at least 12,000 houses and resulted in 11 deaths. The economic loss from the events was at least CNY1.84 billion (USD278 million).

The provinces of Xinjiang, Shaanxi, Gansu, Qinghai and Ningxia in northern China experienced scattered thunderstorms and isolated spells of heavy rainfall between June 29-July 3. Strong winds and flash floods affected more than 18,600 hectares (46,000 acres) of cropland causing damage to medicinal plants as well as crops like potato and corn. At least five people died and two more were reported missing. Nearly 8,000 houses were destroyed across the affected provinces. The total direct economic loss due to the events was reported to be CNY1042 million (USD157 million).

A weakening Typhoon Prapiroon swept across Japan and the Korean Peninsula on July 2-3, bringing periods of heavy rainfall and gusty winds. At least four people were killed and dozens more were injured. The storm spawned flash flooding and landslides in several locations, which caused widespread inundation to homes and businesses.



Historic rainfall from June 29 to July 8 prompted significant flash flooding and mudslides across Japan, leaving at least 230 people dead or missing from no fewer than 11 separate prefectures. More than 1,015 millimeters (40.00 inches) of rain fell across parts of Kochi, Gifu, and Nagano prefectures and Tokushima. The rains, which were heaviest from July 4-7, were spawned by the presence of a stationary seasonal frontal boundary enhanced by remnant moisture from Typhoon Prapiroon. Floodwaters of up to 5.0 meters (16.4 feet) in height led to catastrophic inundation in some areas, with nearly 50,000 homes and other structures damaged or destroyed, and resulted in business disruption for several automobile and electronic manufacturing facilities. The General Insurance Association of Japan cited 53,000 filed claims. Of that total, nearly 48,000 had been closed and paid with payouts nearing JPY79 billion (USD711 million). The overall economic damage was anticipated to be well above the USD1 billion threshold.

An extended period of record heat swept across much of East Asia throughout the month of July, officially leading to an estimated 150 fatalities in Japan and South Korea alone. Local authorities in the two countries reported that more than 23,000 people, including 22,000+ in Japan, had been taken to hospitals with heat-related impacts. On July 23, Japan recorded its warmest temperature on record: 41.1°C (106°F) at Kumagaya in Saitama Prefecture.

Heavy rain triggered flooding and isolated landslides in Pakistan, northern India and Nepal in a stretch from June 20 to July 3. At least six people were killed in Lahore, Pakistan after rains caused urban flooding and damaged dozens of homes. The northern state of Jammu and Kashmir in India recorded three additional fatalities and numerous damaged homes. At least 12 people were killed in Nepal in flood-related incidents.

Severe thunderstorms led to widespread damage in parts of China from July 7-11. Among the hardest-hit areas included the provinces of Hebei, Shanxi, Inner Mongolia, Jilin, and Heilongjiang due to strong winds, hail, and heavy rain which triggered flash floods. The inclement weather caused damage to nearly 77,500 hectares (191,500 acres) of cropland. The total economic loss was estimated to be CNY220 million (USD33 million).

Prolonged, heavy rainfall and snowmelt prompted significant regional flooding in remote Trans-Baikal region of Russia's Far East from July 8-25. According to the Russian Ministry for Emergency Situations (EMERCOM), 65 settlements in 15 municipal entities were affected. Damage tallies included 846 flooded homes and 28 multi-storied residential properties, 2,452 farmhouses, and 3,673 dachas. Infrastructure damage included 45 affected bridges, of which 14 were destroyed completely. Total economic damage has been preliminarily estimated at RUB1 billion (USD16 million).

Torrential rainfall swept across China's Sichuan and Gansu provinces on July 10-11, leaving at least 19 people dead or missing. Local government officials cited that the storms damaged at least 18,300 homes and left nearly 50,000 hectares (123,552 acres) of cropland inundated. In total, nearly two million people were directly affected by the event. Total economic losses were preliminarily listed at CNY3.87 billion (USD580 million).

Typhoon Maria made landfall in China's Fujian province on July 11 as a Category 2 storm on the Saffir-Simpson scale, bringing periods of torrential rainfall and hurricane-force wind gusts. At least one person was killed and several others were injured. Maria and its remnants would later spawn heavy rain and widespread inland flooding in China's Yangtze River Basin that inundated nearly 15,000 homes and damaged agricultural land. Total economic losses from Maria were estimated at CNY3.28 billion (USD490 million). Prior to striking China, Maria grazed Taiwan, Guam, and Japan's Ryukyu Islands.

Severe convective storms spawned heavy rainfall and hail in the Chinese provinces of Jilin and Heilongjiang from July 13-20. The inclement weather left more than 50,000 hectares (123,550 acres) of cropland affected alone. The total economic loss was estimated at CNY350 million (USD53 million).

Tropical Storm Son-Tinh brought torrential rainfall and periods of gusty winds to Vietnam, China, and Laos from July 17-24. The lingering system left the worst impacts in Vietnam, where 34 people died. More than 32,000 homes and other structures were inundated by floodwaters and more than 350,000 hectares (890,000 acres) of cropland was submerged. Economic losses were estimated to be VND5.2 trillion (USD220 million). In China, damage in Hainan and Guangxi was listed at CNY100 million (USD15 million).

Enhanced monsoonal rainfall due to tropical storms Son-Tinh and Ampil led to widespread flooding in the Philippines from July 17-31. Data from the National Disaster Risk Reduction and Management Council (NDRRMC) cited 19 fatalities after 5,050 homes were destroyed or damaged. Total economic losses to agriculture and infrastructure alone was listed at PHP3.2 billion (USD61 million).

Heavy rain led to widespread flooding and casualties in Cambodia and Laos from July 17-25. The worst damage came in Laos following the failure of a hydroelectric dam that was partially caused by heavy rains attributed to Tropical Storm Son-Tinh. An estimated 150 people were left dead or missing. The floodwaters would later enter Cambodia and left nearly 2,000 homes inundated in the provinces of Kampong Speu, Battambang, Koh Kong, Phreah Sihanouk and Kampot.

Heavy rain between July 20-23 triggered flooding the state of Odisha, India. At least 8,286 houses were damaged or destroyed and as many as 20 people were killed.

Tropical Storm Ampil made landfall near Shanghai on July 22 and spread heavy rainfall into several provincial regions, including Jiangsu, Zhejiang, Shandong, and Hebei. At least one person was killed. The storm damaged nearly 6,000 homes and inundated 169,200 hectares (418,100 acres) of land. Total economic losses were listed at CNY1.2 billion (USD175 million).

Isolated thunderstorms and heavy rainfall affected several provinces of China between July 22-25. At least six people were killed across parts of Gansu, Guizhou, Heilongjiang, and Yunnan. Government data cited that nearly 15,000 homes were damaged or destroyed, along with a wide swath of agriculture. The total combined economic cost was listed at roughly CNY2.0 billion (USD295 million).

Typhoon Jongdari made landfall in Japan on July 29 as a Category 1 typhoon. The typhoon followed a rare westward track to bring rain and heavy winds to Japan which already suffered historic flooding and a deadly heatwave in July. Jongdari left at least 24 people injured as it passed through Japan and caused notable damage in several prefectures. The storm later made landfall in Shanghai, China on August 3 as a tropical storm and affected 13,000 hectares (32,000 acres) of croplands in Shanghai, Jiangsu and Zhejiang. Total economic loss in China was CNY370 million (USD54 million).

The National Disaster Management Authority of India reported at least 33 deaths and 45 injuries due to collapsed buildings in the state of Uttar Pradesh as incessant rainfall damaged or destroyed more than 300 houses between July 28-29.

At least 17 people were killed and 365 were injured after a magnitude-6.4 earthquake struck the northern coast of Lombok island in eastern Indonesia on July 28. According to the National Board for Disaster Management, nearly 15,000 homes were damaged or destroyed in the hardest hit areas of East Lombok. Total economic losses were listed at IDR324 billion (USD23 million).

Heavy monsoonal rainfall triggered flooding and landslides in south-western Myanmar and northern Thailand between July 28-30. On July 28, a landslide in Nan province of Thailand claimed 8 lives and caused damage to homes and roads. More than 500 houses in Chiang Rai were inundated by a flash flood due to an overflowing Mekong River. During this time, at least 11 deaths occurred in Myanmar due to floods and landslides and nearly 120,000 people were rendered homeless.

## 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>
01/01-08/01	Drought	Australia	N/A	Thousands	1.2+ billion

A major lack of rainfall and anomalous warmth continued to affect eastern sections of Australia, as severe drought conditions persisted in July. The hardest-hit state was New South Wales, where the government allocated at least AUD1 billion (USD745 million) to aid in drought relief to local farmers. The federal government allocated an additional AUD576 million (USD426 million) to farmers in the state. Reports from agricultural industry groups suggest economic costs related to the drought could be much higher. The Bureau of Meteorology noted that the drought was the state's worst since 1965. Additional drought impacts were also noted in parts of Queensland, Victoria, and South Australia.

## Appendix

### Updated 2018 Data: January-June

#### United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/03-01/05	Winter Weather	Eastern & Central U.S.	22	60,000+	1.1+ billion
01/08-01/09	Flooding	California	21	6,500+	850+ million
01/14-01/17	Winter Weather	Plains, Midwest, Northeast, Southeast	16	Thousands	Millions
01/21-01/24	Winter Weather	Plains, Midwest	10	Hundreds	Millions
02/03-02/07	Winter Weather	Plains, Midwest, Northeast	7	Thousands	50+ million
02/07-02/10	Winter Weather	Plains, Midwest, Northeast	5	Thousands	50+ million
02/19-02/22	Flooding	Plains, Midwest, Southeast	10	25,000+	400+ million
02/23-02/27	Severe Weather	Plains, Midwest, Southeast	5	15,000+	175+ million
03/01-03/03	Winter Weather	Northeast	9	315,000+	2.25+ billion
03/07-03/08	Winter Weather	Northeast	1	60,000+	525+ million
03/12-03/15	Winter Weather	Northeast	0	Thousands	Millions
03/18-03/21	Severe Weather	Plains, Southeast, Northeast	0	100,000+	1.35+ billion
03/21-03/22	Flooding	California	0	Hundreds	Millions
04/03-04/04	Severe Weather	Plains, Midwest, Southeast	1	40,000+	335+ million
04/06-04/07	Severe Weather	Texas, Louisiana, Mississippi	0	80,000+	750+ million
04/07	Severe Weather	Idaho	0	12,500+	125+ million
04/13-04/17	Severe Weather	Plains, Midwest, Southeast, Northeast	6	110,000+	1.25+ billion
04/14-04/15	Flooding	Hawaii	0	1,000+	125+ million
04/17-04/18	Severe Weather	Rockies, Plains	0	20,000+	135+ million
04/22-04/23	Severe Weather	Southeast	0	Thousands	Millions
04/30-05/03	Severe Weather	Plains, Midwest	0	100,000+	950+ million
05/03-06/30	Volcano	Hawaii	0	Hundreds+	Millions
05/12-05/16	Severe Weather	Rockies, Plains, Midwest, Northeast	5	115,000+	1.4+ billion
05/13-05/15	Flooding	Florida	0	Hundreds	Millions
05/19-05/20	Severe Weather	Plains, Midwest	0	28,750+	375+ million
05/28-06/01	Severe Weather	Rockies, Plains, Midwest, Mid-Atlantic	1	40,000+	350+ million
05/27-05/28	Flooding	Maryland	1	5,000+	100+ million
05/27-05/30	STS Alberto	Southeast, Midwest	5	10,000+	125+ million
06/03-06/07	Severe Weather	Plains, Midwest, Southeast	0	80,000+	825+ million
06/11-06/13	Severe Weather	Rockies, Plains	0	70,000+	730+ million
06/13-06/14	Severe Weather	Northeast	0	2,000+	75+ million
06/17-06/20	Severe Weather	Rockies, Plains, Midwest	0	150,000+	1.4+ billion
06/19-06/21	Flooding	Texas	0	11,000+	225+ million
06/23-06/26	Severe Weather	Central/Eastern U.S.	0	20,000+	195+ million
06/23-07/10	Wildfires	West	0	Hundreds+	100s of Millions
06/27-06/29	Severe Weather	Plains, Midwest, Southeast	1	15,000+	150+ million
06/29-07/04	Severe Weather	Plains, Midwest	1	20,000+	250+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/11-01/14	Flooding	Canada	0	5,000+	90+ million
02/16	Earthquake	Mexico	0	18,000+	Millions
02/19-02/22	Flooding	Canada	0	Thousands	75+ million
04/04-04/05	Winter Weather	Canada	0	15,000+	115+ million
04/14-04/17	Winter Weather	Canada	0	15,000+	275+ million
04/26-05/17	Flooding	Canada	0	Hundreds	10s of Millions
05/04-05/05	Severe Weather	Canada	3	65,000+	425+ million
05/26-05/29	STS Alberto	Cuba	7	Thousands	Millions+
06/03	Volcano	Guatemala	122	Thousands	Millions
06/13	Severe Weather	Canada	0	Unknown	10s of Millions
06/14	Severe Weather	Canada	0	10,000+	110+ million
06/28-06/30	Severe Weather	Canada	0	Thousands	Millions

## South America

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

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/04	WSEleanor & Camen	Western & Central Europe	7	200,000+	1.3+ billion
01/06-01/07	Severe Weather	Spain	0	Hundreds	60+ million
01/08	Earthquake	Netherlands	0	3,000+	Millions
01/18	WS Friederike	Western & Central Europe	13	100,000+	2.75+ billion
01/20-02/01	Flooding	France	0	30,000+	500+ million
02/23-03/02	Winter Weather	Western, Central & Eastern EU	88	Thousands	100s of Millions
03/09-03/14	WS Felix & Gisele	Portugal, Spain	0	Hundreds	10s of Millions
03/28	Flooding	Russia	2	1224	Unknown
03/25-04/05	Flooding	Greece, Turkey, Bulgaria	15	Thousands	Millions
04/29	Severe Weather	Germany, France, Belgium	0	Thousands	10s of Millions
05/10-05/16	Severe Weather	Central Europe	0	Thousands	10s of Million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/25-05/31	Severe Weather	Western & Central Europe	1	30,000+	500+ million
06/01-06/07	Severe Weather	Central & Western Europe	2	Thousands	150+ million
06/08-06/13	Severe Weather	Central, Western & SE Europe	6	Thousands	100s of Millions
06/28-06/29	Flooding	Romania, Bulgaria, Ukraine	3	2,000+	50+ million

## Middle East

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

## Africa

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

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/07	Winter Weather	India, Nepal	94	N/A	Negligible
01/02-01/05	Winter Weather	China	21	3,500+	854+ million
01/13-01/17	Flooding	Philippines	11	1,900+	Millions
01/21-01/25	Winter Weather	Japan, China	5	Unknown	Millions
01/23	Earthquake	Indonesia	0	9,291+	Millions
01/24-01/29	Winter Weather	China	2	2,500+	1.1+ billion
02/03-02/12	Flooding	Malaysia	0	Hundreds	Millions
02/05-02/06	Flooding	Indonesia	4	7,228+	Millions
02/06	Earthquake	Taiwan	17	Thousands	100+ million
02/12-02/14	TS Sanba	Philippines	0	2,000+	<10 million
02/21-02/23	Flooding	Indonesia	20	20,000+	Millions
03/03	Severe Weather	China	14	59,000+	147+ million
03/10	Wildfire	India	17	N/A	N/A
03/15-03/18	Severe Weather	China	5	2,000+	50+ million
03/22-03/26	Flooding	Indonesia	3	1,092+	Unknown
03/29	Severe Weather	China	0	200+	30+ million
04/02-04/18	Winter Weather	China	0	Thousands	1.5+ billion
04/11	Severe Weather	India	42	Thousands	100+ million
04/17	Severe Weather	India	18	4,446+	100+ million
04/19-04/25	Severe Weather	China	1	2,200+	91+ million
04/29-04/30	Severe Weather	Bangladesh	33	Unknown	Unknown
05/02-05/03	Severe Weather	India	143	Thousands	24+ Million
05/06-05/09	Severe Weather	India	32	4,200+	Millions
05/07-05/15	Flooding	Afghanistan, Pakistan	78	Thousands	Millions
05/07-05/14	Flooding	China	2	2,000+	31+ million
05/12-05/17	Severe Weather	China	2	2,000+	67+ Million
05/13-05/16	Severe Weather	India	95	Hundreds	Millions+
05/17-05/20	Flooding	India	6	2,422+	10+ Million
05/28-05/29	Severe Weather	India	54	Thousands	Millions
05/28	Earthquake	China	0	15,900+	7+ Million
05/29-05/31	Flooding	India	12	1,000+	Millions+
05/29-05/30	Severe Weather	Myanmar	5	1,400+	Unknown
05/07-07/10	Flooding	China	108	150,000+	1.3+ billion
06/01-06/30	Drought	China	N/A	Unknown	91+ million
06/01-06/06	Severe Weather	India	42	Hundreds	Millions
06/06-06/07	Severe Weather	China	2	800+	31+ Million
06/02-06/07	TS Ewiniar	Vietnam, China	15	5,400+	573+ Million
06/09-06/12	Severe Weather	China	0	Thousands	91+ Million
06/08-06/12	Severe Weather	India	61	16,000+	100+ million
06/05-06/14	Flooding	Bangladesh, Myanmar	26	1,540+	Unknown
06/12-06/21	Severe Weather	China	2	12,000+	317+ million
06/18	Earthquake	Japan	4	78,838	500+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/23-06/27	Flooding	Vietnam	33	3,776 +	23+ million
06/24-07/03	Flooding	India	52	Hundreds	Millions

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

Date	Event	Location	Deaths	Structures / Claims	Economic Loss (USD)
01/04-01/07	Flooding	New Zealand	0	3,600+	50+ million
01/31-02/02	Flooding (Fehi)	New Zealand	0	Thousands	67+ million
02/09-02/20	CY Gita	Tonga, Fiji, Samoa, New Zealand	1	10,000+	225+ million
02/18-02/20	TS Kelvin	Australia	0	4,000+	25+ million
02/26	Earthquake	Papua New Guinea	160	Thousands	190+ million
03/03	CY Hola	Vanuatu, N. Caledonia, NZ	3	Unknown	Unknown
03/05-03/08	Earthquake	Papua New Guinea	36	Unknown	Millions
03/09-03/11	Flooding	Australia	0	2,000+	40+ million
03/17-03/19	Wildfire	Australia	0	1,039+	90+ million
03/17	CY Marcus	Australia	0	6,218+	75+ million
03/24-03/27	CY Nora	Australia	0	2,000+	25+ million
03/31	CY Josie	Fiji	6	Unknown	10+ million
04/10	CY Keni	Fiji	0	804+	
04/10-04/11	Severe Weather	New Zealand	0	12,523+	87+ million
04/27-04/29	Flooding	New Zealand	0	2,000+	25+ million
05/10-05/14	Flooding	Australia	0	7,912+	110+ million
06/11	Flooding	New Zealand	0	Unknown	10s of Millions

## Additional Report Details

TD = Tropical Depression, TS = Tropical Storm, HU = Hurricane, TY = Typhoon, STY = Super Typhoon, CY = Cyclone

Fatality estimates as reported by public news media sources and official government agencies.

Structures defined as any building – including barns, outbuildings, mobile homes, single or multiple family dwellings, and commercial facilities – that is damaged or destroyed by winds, earthquakes, hail, flood, tornadoes, hurricanes or any other natural-occurring phenomenon. Claims defined as the number of claims (which could be a combination of homeowners, commercial, auto and others) reported by various public and private insurance entities through press releases or various public media outlets.

Damage estimates are obtained from various public media sources, including news websites, publications from insurance companies, financial institution press releases and official government agencies. Damage estimates are obtained from various public media sources, including news websites, publications from insurance companies, financial institution press releases and official government agencies. Economic loss totals include any available insured loss estimates, which can be found in the corresponding event text. Specific events may include modeled loss estimates determined from utilizing Impact Forecasting's suite of catastrophe model products.



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