

Impact Forecasting

June 2011 Monthly Cat Recap – Impact Forecasting

July 7, 2011

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Executive Summary

- June flood events leave hundreds of people dead and cause nearly USD6 billion in damages
- Global tropical cyclone activity picks up
- Two aftershocks rattle New Zealand's Christchurch region

Persistent rounds of heavy rains fell throughout the month across at least 13 central and southern provinces in China, including the parched Yangtze River Basin. At least 199 people died and dozens more remained missing. Countrywide, at least 37 million people were directly impacted by the floods (1.64 million of those people displaced) after more than 500,000 homes were damaged or destroyed and hundreds of roads, bridges and railways were submerged. The Ministry of Civil Affairs noted that nearly one million hectares (2.47 million acres) of farmland were submerged as well. Direct economic losses were listed at CNY35 billion (USD5.41 billion).

Elsewhere in Asia, flood events led to various levels of damage and fatalities in parts of India, Tajikistan, Singapore and the Philippines.

Floods were also prevalent in the Missouri River and Souris River Basins in the United States and Canada during the month. In Minot, North Dakota, the Souris River set an all-time record crest and flooded more than 4,100 homes in the city. The floods caused at least USD200 million in damages and reconstruction costs throughout the river basin. In Canada, dozens of homes were inundated by floodwaters from the Souris River.

Additional notable flooding locations came in parts of Hispaniola, Brazil, Nigeria and Australia.

Tropical Storm Arlene became the first Atlantic cyclone of 2011, and made landfall near Cabo Rojo, Mexico. The system led to the deaths of at least 20 people due to widespread flooding and landslides in the states of Veracruz, Tamaulipas and San Luis Potosi. On Mexico's Pacific coast, Hurricane Beatriz skirted the coastline and caused three fatalities.

In Asia, three separate tropical storms (Sarika, Haima, Meari) crossed the Western Pacific Ocean Basin and led to a combined 67 fatalities and USD342 million in damages across parts of China, the Philippines, Korea and Vietnam.

Two strong aftershocks (magnitudes 5.2 and 6.0) rattled the greater Christchurch, New Zealand region, leaving at least one person dead and 46 more injured. Damage was reported throughout Christchurch and its eastern suburbs due to the shaking itself and also from liquefaction and rockslides. In terms of economic impacts from the tremors, the New Zealand government had yet to release any official preliminary loss projections. The New Zealand Earthquake Commission had received at least 22,000 claims.

Wildfires burned across parts of Arizona, New Mexico, Texas and Florida in the U.S. during the month, which led to two fatalities. Total costs to fight the fires were listed at more than USD160 million. In Texas, a large fire destroyed valuable timber which may cost the state USD500 million in lost productivity.

Severe weather caused damage and fatalities in the U.S., Canada, Chile, New Zealand and the Netherlands.

United States

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
5/15-6/30	Flooding	Missouri River Basin	1+	5,000+	200+ million
5/29-6/23	Wildfires	Arizona, New Mexico, Texas	2+	300+	160+ million
6/1-6/2	Severe Weather	Central Plains	0	10,000+	75+ million
6/8-6/10	Severe Weather	Midwest, Northeast, Plains	0	35,000+	300+ million
6/16-6/22	Severe Weather	Midwest, Plains, Southeast	0	Thousands+	Millions+
6/26-6/30	Wildfires	New Mexico, Texas	0	100+	512+ million

Areas in the Missouri River Basin (including parts of Montana, the Dakotas, Nebraska, Iowa and Missouri) continued to endure fresh rounds of flooding throughout the month. The U.S. Army Corp of Engineers enacted several controlled water releases to help ease record water levels being recorded at some reservoir sites. These releases only added additional water downstream, where multiple levees were either breached or were on the verge of failure throughout the region. In Minot, North Dakota, the Souris River set an all-time record crest and flooded thousands of homes in the city. The floods caused at least USD200 million in damages and reconstruction costs.

Wildfires burned across parts of Arizona, New Mexico, Texas and Florida during the month, which led to two fatalities. In Arizona, the main blaze was the Wallow Fire, charred more than 538,000 acres (218,000 hectares) of mostly ponderosa pine forest. At least 78 structures were destroyed in the Apache-Sitgreaves National Forest region. Additional notable Arizona wildfires included: the Monument Fire (84 structures lost) and the Horseshoe Fire (23 structures lost). In New Mexico, the Track Fire destroyed at least 19 structures. In Texas, the East Texas Complex charred 29,002 acres (11,700 hectares) of land and at least 40 structures. In Florida, at least two firefighters were killed while fighting the Blue Ribbon Fire. Another fire, the Maytown Road Fire, destroyed at least 48 structures after burning nearly 2,400 acres (971 hectares). Overall costs to fight the fires was at least USD160 million.

A storm system developed and spawned severe weather (including nearly a dozen tornadoes, large hail and damaging winds) across parts of the Central Plains on the 1st and 2nd. Parts of central and northern Kansas were particularly affected, primarily due to large hail – up to softball-sized in some locations. Total economic losses were estimated at USD75 million, while various insurers received at least 10,000 claims with payouts listed at approximately USD50 million.

Scattered severe weather occurred across multiple sections of the country between the 8th and the 10th. The most notable damage came in parts of the Midwest, Ohio Valley and the Northeast as the Storm Prediction Center recorded nearly 1,000 reports of large hail and damaging winds. Total economic losses were estimated at USD300 million, while various insurers received at least 35,000 claims with payouts listed at approximately USD200 million.

An active eight-day stretch of severe weather occurred across much of the eastern two-thirds of the country between the 16th and the 23rd. With a stationary frontal boundary draped across an area from the Carolinas back into the central Plains, several areas of low pressure developed. Of the more than 3,000 storm reports recorded by the SPC during this timeframe, the vast majority were damaging winds (gusting upwards of 85 mph (140 kph)) and large hail (as large as baseballs in some instances). Notable damage locations during the period came in the greater Chicago, Illinois metropolitan region and at the famed Churchill Downs in Kentucky.

New wildfires continued to rage across the Desert Southwest between the 26th and the end of June, with the most notable fire being the Las Conchas wildfire in New Mexico. The blaze burn more than 124,000 acres (50,100 hectares) of land. At least 95 structures were list in and around Los Alamos. The fire cost at least USD12.1 million to fight. In Texas, the Forest Service reported that two large fires (the Dyer Mill Fire and the Bearing Fire) destroyed at least USD15 million in timber – resulting in a possible USD500 million economic loss. The timber was to be used for lumber, plywood and paper products.

Remainder of North America (Canada, Mexico, Caribbean Islands)

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/1-6/10	Flooding	Hispaniola, Jamaica	31+	Hundreds+	Unknown
6/8	Severe Weather	Canada	1+	Thousands+	Unknown
6/20-6/21	HU Beatriz	Mexico	3+	100+	Unknown
6/21-6/30	Flooding	Canada	0	Hundreds+	Unknown
6/30	TS Arlene	Mexico	20+	50,000+	Millions+

Nearly ten consecutive days of heavy rains from a tropical disturbance in the western Caribbean Sea led to at least 31 fatalities (25 in Haiti, 5 in the Dominican Republic, 1 in Jamaica) between the 1st and the 10th. In Haiti, the rains led to flash flooding and mudslides destroyed hundreds of homes and shanties in Port-au-Prince. Additional damage occurred in the Dominican Republic, Jamaica, Puerto Rico and the U.S. Virgin Islands.

A strong storm system crossed Ontario, Canada on the 8th, triggering severe weather which led to widespread property damage throughout the greater Toronto metropolitan region. At least one tornado touchdown was reported, though most of the damage was blamed on hail and high winds. Violent lightning triggered 15 fires that caused structural damage to multiple homes. More than 150,000 Hydro One customers lost electricity during the height of the event as the storm caused extensive damage to parts of the electrical infrastructure. One storm-related fatality was reported.

Hurricane Beatriz developed and skirted the Mexican coastline from Zihuatanejo to Cabo Corrientes on the 20th and the 21st. According to Mexican officials, Beatriz spawned heavy rains and periods of gusty winds across the states of Chiapas, Oaxaca, Guerrero, Jalisco, Colima and Michoacán. At least three fatalities were blamed on the storm. Damage was generally minimal, though dozens of properties reported lost roofs.

Areas along the Souris River in central-southern sections of Canada saw flood inundation between the 21st through the 30th. According to a local report, at least 44 homes were damaged or destroyed by the floods in southeastern Saskatchewan. As the high water levels continue to head northward out of North Dakota and into southwestern Manitoba, officials anticipated cresting in early July. At least 3,000 residents in the region were ordered to evacuate their homes. In the town of Souris, volunteers worked to protect the local water treatment plant, which is threatened by the rising waters.

Tropical Storm Arlene developed in the Bay of Campeche before making landfall as a 65 mph (100 kph) cyclone near Cabo Rojo, Mexico early on the 30th. Following landfall, the storm caused flooding and landslide damage across the states of Veracruz, Tamaulipas and San Luis Potosi. At least 20 storm-related fatalities occurred in addition to 50,000 homes being damaged. Mexico's weather service reported that the 6 to 10 inches (150 to 250 millimeters) of rainfall helped ease the most severe drought that eastern, central and northern Mexico had seen in at least 50 years. Total damages were expected to reach the millions of dollars (USD).

South America

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/1-6/6	Flooding	Brazil	0	1,000+	9.4+ million
6/4-6/15	Volcano	Chile	0	Unknown	Unknown
6/7	Severe Weather	Chile	0	100+	Unknown

Six consecutive days of heavy rains between the 1st and the 6th led to the worst floods since 1976 in the northern Brazil state of Roraima. According to government officials, a state of emergency was declared for the state after several rivers overflowed their banks. The Branco River, which rose to a record-high 10.02 meters (32.87 feet), flooded many areas in Roraima – including the capital of Boa Vista, which saw 80 percent of its neighborhoods inundated. The flood also submerged several main roads and federal highways. Total damages were listed at BRL15 million (USD9.4 million).

Chile's Cordon Caulle volcano erupted for the first time since 1960 on the 4th, sending a 10-kilometer-high (six-mile) plume of ash that affected parts of South America and even areas as far away as Australia and New Zealand. Chilean officials evacuated more than 4,000 residents from 22 nearby communities for safety precautions. The volcano covered the Chilean resorts of San Carlos de Bariloche and Villa la Angostura with ash, which was measured at up to 50 centimeters (29 inches) deep on some nearby roads and farms. Outside of Chile, ash from Cordon Caulle led to the cancellation of domestic and international flights throughout Latin America, particularly in Argentina and Uruguay.

A powerful thunderstorm ripped through a Chilean resort town on the 7th, injuring dozens of people. At least 100 homes were damaged in the town of Villarrica after large hail pelted the area and a suspected tornado with 200 kph (125 mph) winds touched down.

Europe

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/28	Severe Weather	Netherlands	0	Hundreds+	Millions+

Strong thunderstorms ripped through parts of the Netherlands on the 28th, causing localized damage primarily in the southern province of North Brabant. Local media in the towns of Boxmeer and Vught reported that torrential rains, hail and damaging winds led to downed trees, flooding and the rupturing of some gas lines. Debris covered railways also caused delays on Dutch Rail. The Dutch Association of Insurers reported that damages were anticipated to reach into the millions of Euros.

Africa

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/21-6/22	Flooding	Nigeria	24+	1,000+	4.5+ million

Torrential rains in northern Nigeria on the 21st and 22nd prompted major flooding in the towns of Kano, Lagos and other nearby cities. At least 24 people were killed and more than 150 others were injured after the floods inundated numerous neighborhoods. According to the News Agency of Nigeria, the flash floods damaged hundreds of homes and other commercial properties. Additional damage was reported to the transportation infrastructure and vehicles. Economic costs were at least NIO100 million (USD4.5 million).

Asia

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/1-6/24	Flooding	China	199+	500,000+	5.41+ billion
6/1-6/19	Flooding	Philippines	10+	1,000+	9.4+ million
6/4-6/11	TS Sarika	Philippines, China	32+	15,000+	248+ million
6/5	Flooding	Singapore	0	Dozens+	Unknown
6/11-6/12	Flooding	Tajikistan	0	500+	Unknown
6/19-6/24	TS Haima	China, Philippines, Vietnam	23+	5,000+	50+ million
6/20	Earthquake	China	0	12,094+	9.2+ million
6/25-6/30	TS Meari	Philippines, China, Korea	17+	5,000+	44+ million
6/27-6/28	Flooding	India	31+	25,750+	Unknown
6/28	Flooding	Philippines	30+	500+	Unknown

Persistent rounds of heavy rains fell between the 1st and 24th across at least 13 central and southern provinces in China, including the parched Yangtze River Basin. At least 199 people died and dozens more remained missing. Country-wide, at least 37 million people were directly impacted by the floods (1.64 million of those people displaced) after more than more than 500,000 homes were damaged or destroyed and hundreds of roads, bridges and railways were submerged. The Ministry of Civil Affairs noted that nearly one million hectares (2.47 million acres) of farmland were submerged as well. Direct economic losses were listed at CNY35 billion (USD5.41 billion).

Torrential monsoonal rains battered parts of the Philippines between the 1st and the 19th, leaving at least 10 people dead. The rainfall led to flash floods and river flooding that affected nine separate provinces. The province of Maguindanao was most affected, where floodwaters from the swollen Rio Grande de Mindanao River swamped the region. More than 75 percent of the town of Cotabato was underwater. Widespread damage has been reported to personal and commercial property and the electrical and agricultural infrastructures. Economic losses were listed at PHP411 million (USD9.4 million).

At least 32 people died in China (23) and the Philippines (9) after torrential rains from Tropical Storm Sarika brought floods and landslides the 4th and the 11th. South China's Guangdong Province was particularly affected, where thousands of homes were damaged in addition to wide swaths of crops. According to the Ministry of Civil Affairs, economic damages were CNY1.6 billion (USD248 million).

Flash floods occurred in western and central sections of Singapore on the 5th after a powerful storm brought 124 millimeters (4.88 inches) of rain in just a few hours' time. Damage was widespread in some areas, with the carpark at Delfi Orchard, Tangling Mall and the Forum Shopping Mall all sustaining at least ankle-deep floodwater heights. Additional floods came in Bukit Timah after a canal burst its banks.

Torrential rains on the 11th and 12th in Tajikistan caused widespread flooding and mudslides throughout the northern province of Sughd. Separate large mudslides impacted the villages of Bobodarhon and Saro, where at least 213 homes were damaged or destroyed. The floods also damaged 11 kilometers (seven miles) of roads, thousands of hectares (acres) of crops, 80 meters (262 feet) of irrigation channels and 500 meters (1,640 feet) of electricity supply lines. No injuries or fatalities were immediately reported.

Tropical Storm Haima developed and brought heavy rains and gusty winds to parts of the northern Philippines, southern China and central and northern Vietnam between the 19th and the 24th. In the Philippines, at least two people died after floods and landslides affected Luzon. Damage was generally listed as minimal throughout the country. In China, Haima damaged hundreds of homes, farmland and caused total economic losses of CNY9.4 million (USD1.45 million). As the system reached Vietnam, torrential rains spawned flooding that left at least 22 people dead and 81 more injured. More than 2,600 homes were destroyed. Total damages were listed at VND1 trillion (USD49 million).

A moderate earthquake rattled southwest China's Yunnan Province on the 20th, leading to at least six injuries. According to the United States Geological Survey, the magnitude-5.3 tremor struck at 6:16 PM local time (10:16 UTC) with an epicenter 163 kilometers (101 miles) west-southwest of Dali, China at a depth of 35.2 kilometers (21.9 miles). The Ministry of Civil Affairs reported that the earthquake caused the majority of the damage in Tengchong County, where at least 12,094 homes were damaged or destroyed. Total economic losses were listed at CNY60 million (USD9.2 million).

Tropical Storm Meari traversed through the Philippine Sea and the East China Sea in the Western Pacific Ocean before making its sole landfall in Shinuju, North Korea on the 26th. The first areas to feel impacts from Meari came in the Philippines, where at least eight people were killed following torrential rains and flooding. The storm damaged or destroyed at least 1,380 homes and caused PHP564 million (USD13.1 million) in damages to agriculture and infrastructure. In eastern China, the provinces of Liaoning, Zhejiang and Shandong reported that at least 400 homes were destroyed and more than 33,000 hectares (81,500 acres) of farmland was submerged. Total economic losses were listed at CNY200 million (USD30.9 million). As a weakened Meari made landfall in Korea, the system damaged numerous bridges, roads and farmland. At least nine people were killed in South Korea due to storm-related accidents.

Monsoonal rains in India on the 27th and 28th led to the deaths of at least 31 people. The northern and eastern states of Uttar Pradesh, Uttarakhand and West Bengal were particularly affected by the heavy rainfall. Local officials reported that at least 25,750 homes were damaged or washed away. In Mumbai, heavy rains resulted in flooding across many low-lying parts of the city.

Torrential monsoonal rains spawned both river and flash flooding across Davao City in the Philippines on the 28th. At least 30 people were killed throughout six villages after the Pangri River overflowed its banks and caused water to reach upwards of 3 meters (10 feet) in some locations of the city. At least 409 homes were damaged or destroyed in addition to parts of the transportation infrastructure.

Oceania (Australia, New Zealand, New Guinea, Micronesia, Guam, Northern Mariana Islands)

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/9-6/16	Flooding	Australia (New South Wales)	1+	1,500+	13.7+ million
6/13	Earthquake	New Zealand	1+	22,000+	Unknown
6/19	Severe Weather	New Zealand	0	50+	810,500+

Periods of heavy rain fell across northeastern sections of New South Wales between the 9th and the 16th, leaving at least one person dead. Both river flooding and flash flooding was recorded – prompting a state of emergency declaration for nine shires in NSW. In addition to the heavy rainfall, gusty winds also led to damage. The NSW State Emergency Service responded to at least 1,500 separate calls dealing with various levels of property and vehicle damage. Flooding also submerged areas of farmland and caused widespread damage to the transportation infrastructure. Economic losses were listed at AUD13 million (USD13.7 million).

The greater Christchurch, New Zealand region was struck by two aftershocks on the 13th, leaving at least one person dead, 46 more injured and causing widespread damage. According to the United States Geological Survey, the first tremor (a magnitude-5.2) struck at 1:00 PM local time (01:00 UTC) with an epicenter nine kilometers (five miles) east-southeast of Christchurch at a depth of 11 kilometers (6.8 miles). The second, and stronger, temblor (a magnitude-6.0) struck approximately 80 minutes later with an epicenter 13 kilometers (eight miles) north-northeast of Christchurch at a depth of nine kilometers (5.6 miles). Damage was reported throughout Christchurch and its eastern suburbs due to the shaking itself and also from liquefaction and rockslides. In terms of economic impacts from the tremors, the New Zealand government has yet to release any official preliminary loss projections. As of this writing, the New Zealand Earthquake Commission had received at least 22,000 claims. The agency also reported that that the earthquakes were being treated as a new event for insurance purposes.

Two tornadoes touched down in the New Plymouth region of New Zealand's North Island on the 19th. According to Taranaki Emergency Management officials, at least 15 commercial properties and nearly two-dozen homes were damaged. City workers noted that the damage was confined to a two narrow areas at Bell Block and in the central city. Total damages were anticipated to approach NZD1 million (USD810,500). No injuries or fatalities were reported.

APPENDIX

Updated Jan. 2011 – May 2011 Data

United States

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
12/31-1/1	Severe Weather	Midwest, Southeast	8+	10,000+	Millions+
1/1-6/30	Drought	Texas	0	Unknown	2.5+ billion
1/7-1/12	Winter Weather	Midwest, Southeast, Northeast	11+	Thousands+	Millions+
1/17-1/24	Winter Weather	Plains, Midwest, Northeast, Tennessee Valley	10+	Thousands+	Millions+
1/24-1/26	Winter Weather	Southeast, Northeast, Mid-Atlantic	0	Thousands+	Millions+
1/31-2/2	Winter Weather	Midwest, Southeast, Northeast	36+	100,000+	1+ billion
2/2-2/6	Winter Weather	Plains, Southeast, Southwest	4+	45,000+	650+ million
2/20-2/21	Winter Weather	Midwest, Ohio Valley, Northeast	1+	4,000+	Millions+
2/24-2/25	Winter Weather	Midwest, Southeast, Northeast	4+	20,000+	225+ million
2/27-3/4	Wildfires	Texas	1+	241+	14.5+ million
2/27-2/28	Severe Weather	Southeast, Midwest, Mid-Atlantic	4+	45,000+	250+ million
3/5-3/7	Winter Weather	Southeast, Midwest, Northeast	1+	Thousands+	Millions+
3/7-3/9	Wildfires	New Mexico	0	60+	Unknown
3/8-3/11	Winter Weather	Southeast, Midwest, Northeast	4+	20,000+	200+ million
3/11	Tsunami	West Coast, Hawaii	1+	Hundreds+	88.4+ million
3/12-3/13	Wildfires	Oklahoma, Texas	0	67+	3+ million
3/20-3/23	Severe Weather	West, Southeast, Northeast	3+	Thousands+	27+ million
3/26-3/28	Severe Weather	Southeast	0	25,000+	225+ million
3/29-3/31	Severe Weather	Southeast	0	37,500+	350+ million
4/3-4/5	Severe Weather	Midwest, Southeast, Plains	9+	225,000+	2+ billion
4/8-4/11	Severe Weather	Midwest, Southeast, Plains	0	275,000+	2.25+ billion
4/8-4/14	Flooding	Red River Valley	3+	Hundreds+	20+ million
4/9-4/30	Wildfires	Texas	2+	310+	183+ million
4/14-4/16	Severe Weather	Plains, Southeast, Midwest	48+	150,000+	2.5+ billion
4/19-4/21	Severe Weather	Plains, Southeast, Midwest	0	100,000+	575+ million
4/22-4/28	Severe Weather	Southeast, Plains, Midwest	344+	650,000+	7+ billion
4/15-5/15	Flooding	New England	0	2,000+	75+ million
4/25-6/15	Flooding	Mississippi Valley	9+	25,000+	5+ billion
5/10-5/13	Severe Weather	Midwest, Southeast	2+	50,000+	300+ million
5/15-6/30	Flooding	Missouri River Basin	1+	1,000+	100+ million
5/21-5/27	Severe Weather	Plains, Midwest, Southeast	179+	550,000+	6.5+ billion
5/28-5/30	Wildfires	Texas	0	12+	Unknown
5/28-6/1	Severe Weather	Plains, Midwest, Northeast	3+	25,000+	500+ million

Remainder of North America (Canada, Mexico, Caribbean Islands)

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/10-1/13	Winter Weather	Canada	0	Hundreds+	Unknown
1/11-1/15	Winter Weather	Mexico	16+	Unknown	Unknown
1/27-1/28	Winter Weather	Canada	0	Hundreds+	Unknown
2/1-2/2	Winter Weather	Canada	0	Dozens+	Unknown
2/15-2/16	Winter Weather	Canada	0	Dozens+	Unknown
3/7	Winter Weather	Canada	0	Hundreds+	20.6+ million
4/7	Earthquake	Mexico	0	Unknown	Unknown
4/14-5/31	Flooding	Canada	5+	10,000+	1.03+ billion
5/15-5/18	Wildfires	Canada	0	522+	206+ million

South America

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
12/25-1/6	Flooding	Brazil	35+	30,000+	Unknown
1/1-3/5	Flooding	Bolivia	52+	25,000+	20+ million
1/1-5/31	Flooding	Colombia	116+	375,000+	5.85+ billion
1/10-1/14	Flooding	Brazil	902+	21,500+	1.2+ billion
1/20-1/31	Flooding	Brazil	6+	21,000+	Unknown
2/27	Landslides	Bolivia	0	400+	Unknown
3/10-3/14	Flooding	Brazil	10+	25,000+	Millions+
3/11	Tsunami	Chile, Peru	0	500+	Unknown
4/3-21	Flooding	Peru	9+	5,500+	Unknown
4/25-4/26	Severe Weather	Brazil	1+	5,000+	255+ million

Europe

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/9-1/14	Flooding	Germany, Poland, Czech Republic	5+	Thousands+	Millions+
1/29	Earthquake	Hungary	0	8,481+	5+ million
2/1-2/28	Winter Weather	Poland	29+	Unknown	Unknown
4/8-4/10	Severe Weather	Iceland, Norway	0	500+	Unknown
5/12	Earthquakes	Spain	9+	20,000+	125+ million
5/19	Earthquake	Turkey	3+	2,500+	Unknown
5/21-5/25	Volcano	Western & Central Europe	0	Unknown	50+ million
5/23	Severe Weather	Scotland	1+	Hundreds+	6.5+ million

Africa

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/1-1/31	Flooding	South Africa, Mozambique	136+	38,000+	495+ million
2/14-2/16	CY Bingiza	Madagascar, Mozambique	22+	35,729+	Unknown
3/27-3/31	Flooding	Namibia	62+	30,000+	15+ million

Asia

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/1-5/31	Drought	China	0	Unknown	2.3+ billion
1/1-1/28	Flooding	Philippines	75+	5,729+	46.6+ million
1/1-1/24	Winter Weather	China	2+	150,000+	1.77+ billion
1/2-1/15	Flooding	Sri Lanka	43+	50,000+	500+ million
1/19	Earthquake	Pakistan	0	200+	Unknown
1/29-1/31	Flooding	Malaysia	5+	25,000+	Unknown
1/31-2/7	Flooding	Philippines	22+	2,598+	12.3+ million
2/1-2/10	Flooding	Sri Lanka	18+	27,497+	450+ million
2/1	Earthquake	China	0	678+	Unknown
2/3-2/17	Winter Weather	Afghanistan	25+	3,000+	Unknown
2/11-2/13	Winter Weather	South Korea	0	1,000+	70+ million
3/10	Earthquake	China	26+	68,000+	16+ million
3/11	Earthquake	Japan	15, 930+	425,000+	198-309 billion
3/17-3/31	Flooding	Indonesia	13+	5,000+	Unknown
3/21-4/8	Flooding	Thailand	61+	609,679+	880+ million
3/24	Earthquake	Myanmar, Thailand	75+	3,194+	3.6+ million
4/4	Severe Weather	Bangladesh	17+	500+	Unknown
4/7	Earthquake	Japan	4+	Hundreds+	Unknown
4/9-4/15	Flooding	Kazakhstan	2+	9,000+	5.97+ million
4/10	Earthquake	Japan	3+	Dozens+	Unknown
4/11	Earthquake	China	0	5,900+	6.1+ million
4/17	Flooding	Indonesia	10+	Dozens+	Unknown
4/17-4/18	Severe Weather	China	0	3,200+	26.2+ million
4/22	Flooding	Philippines	14+	50+	Unknown
4/28-4/30	Sandstorm	China	0	21,000+	Unknown
4/30-5/2	Severe Weather	China	0	5,000+	20.5+ million
5/7-5/9	Flooding	China	19+	1,000+	Millions+
5/8-5/9	TS Aere	Philippines	35+	9,420+	31.6+ million
5/26-5/29	STY Songda	Philippines, Japan	17+	1,000+	3+ million

Oceania (Australia, New Guinea, New Zealand, Micronesia, Guam, Northern Mariana Islands)

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/1-1/14	Flooding	Queensland	35+	56,200+	5.6+ billion
1/13-1/18	Flooding	Victoria	1+	7,500+	125+ million
1/23-1/24	Flooding	New Zealand	0	500+	11.4+ million
1/25-1/29	CY Wilma	Tonga, New Zealand	3+	1,000+	22+ million
2/3	STC Yasi	Australia	1+	68,300+	1.8+ billion
2/4-2/6	Severe Weather	Australia	0	48,000+	418+ million
2/5-2/6	Bushfire	Australia	0	410+	40+ million
2/16-2/22	STC Carlos	Australia	0	4,000+	15+ million
2/16-2/17	STC Dianne	Australia	0	Unknown	Unknown
2/22	Earthquake	New Zealand	172+	159,572+	12+ billion
2/28	Severe Weather	Australia	0	170+	1.02+ million
3/20-3/21	Flooding	New South Wales	1+	800+	3.7+ million
4/26-4/27	Flooding	New Zealand	0	Hundreds+	8.3+ million
5/3	Severe Weather	New Zealand	1+	100+	8.3+ million

¹ TD = Tropical Depression, TS = Tropical Storm, HU = Hurricane, TY = Typhoon, STY = Super Typhoon, CY = Cyclone

² As reported by public news media sources

³ **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.

⁴ Damage estimates obtained from various public media sources, including news websites, publications from insurance companies and financial institution press releases. These estimates can include insured or economic losses.

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