

Impact Forecasting

October 2011 Monthly Cat Recap – Impact Forecasting

November 3, 2011

Table of Contents

Executive Summary	2
United States	3
Remainder of North America (Canada, Mexico, Caribbean Islands)	3
South America	4
Europe	4
Africa	4
Asia	4
Oceania (Australia, New Zealand, New Guinea, Micronesia, Guam, Northern Mariana Islands)	6
APPENDIX	7

Executive Summary

- Historic floods in Thailand cause upwards of USD4.6 billion in insured losses
- Strong earthquake leaves more than 600 people dead in Turkey
- Early season Nor'easter brings record snowfall to the Northeast U.S.

Historic flooding continued to inundate much of Thailand for another month, as floodwaters approached and entered Bangkok. The death toll rose to at least 427. The government noted that more than 9.9 million people had been affected in 64 of the country's 77 provinces in what is listed as the worst flooding Thailand has seen in decades. Substantial damage occurred to personal and commercial property, with approximately 3.3 million homes and nearly 15,000 manufacturing and industrial plants sustaining various levels of flood inundation. Preliminary economic losses nationwide were estimated by the University of Thai Chamber of Commerce at THB300 billion (USD9.8 billion). Thailand's Office of Insurance Commission reported insured losses were already at least THB140 billion (USD4.6 billion).

Elsewhere in Southeast Asia, flooding persisted in parts of Laos, Cambodia and Vietnam as the combined death toll reached at least 342. More than 480,000 homes were destroyed or severely damaged as extensive flooding also led to substantial inundation to crops. Total combined economic losses were listed in excess of USD766 million.

In other flood news this month, a strong storm system spawned torrential rains, flooding and mudslides across parts of Europe. At least nine people were killed, including seven in Italy. Italian officials reported that the hardest-hit areas came in the regions of Tuscany and Liguria. The government released EUR65 million (USD92 million) for recovery efforts.

Weeks of heavy rains spawned widespread flooding across southern and central sections of Nigeria. At least 10 people died and 25,000 homes were submerged in areas around the city of Lagos and villages in Imo State after rivers overflowed their banks.

A magnitude-7.2 earthquake struck eastern Turkey, killing at least 601 people and leaving more than 4,152 others injured. Widespread substantial damage occurred throughout Van Province, with at least 11,232 buildings listed as destroyed or having sustained severe effects. Dozens of villages near the epicenter, where construction was poor, saw thousands of additional homes collapse. Economic loss estimates suggested totals reaching at least well into the hundreds of millions of dollars (USD).

Global tropical cyclone activity was quiet in the Atlantic Basin, though multiple systems came ashore on both sides of the Pacific. Hurricane Jova and Tropical Depression 12-E came ashore in Mexico and Central America, bringing torrential rains and flooding that left more than 120 people dead. Super Typhoon Nalgae made landfalls in the Philippines, China and Vietnam as 13 people were killed.

The remnants of Tropical Storm 02B brought excessive rains to Myanmar, where flash flooding and overflowing rivers led to the deaths of at least 215 people.

A strong, early season Nor'easter brought record snowfall and gusty winds across parts of New England and the Mid-Atlantic in the U.S., leaving at least 27 people dead. The system caused widespread damage as the weight of the heavy, wet snow snapped trees, power lines, power poles onto homes, businesses and vehicles. Total economic losses were preliminarily estimated to reach as high as USD3 billion.

United States

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
10/19	Severe Weather	Florida	0	80+	Unknown
10/28-10/30	Winter Weather	Northeast	27+	Thousands+	3+ billion

Two tornadoes struck portions of South Florida on the 19th. The storms were spawned in association with a tropical disturbance merging with an advancing cold front traversing through the state. No fatalities were reported, though multiple minor injuries occurred. According to the National Weather Service, an EF-2 twister with winds up to 120 mph (195 kph) tore through a 1.11-mile (1.79-kilometer) path in the greater Sunrise/Plantation area near Miami. At least 50 homes were damaged or destroyed.

A strong, early season Nor'easter brought heavy snow and gusty winds across parts of New England and the Mid-Atlantic between the 28th and the 30th. The system, which was blamed for the deaths of at least 27 people, caused widespread damage as upwards of two feet (61 centimeters) of heavy, wet snow snapped trees, power lines, power poles and cell phone towers onto homes, businesses and vehicles. Additional damage was reported to the transportation infrastructure from Maryland to Maine. At the height of the event, more than three million power outages were recorded. Total economic losses were preliminarily estimated by state governments in the Northeast to reach as high as USD3 billion.

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)
10/11-10/12	HU Jova	Mexico	6+	Hundreds+	27.7+ million
10/11-10/21	TD 12-E	Central America	115+	25,000+	Unknown

Hurricane Jova developed and made landfall in west-central Mexico late on the 11th, coming ashore near the town of Chamela in Jalisco state as a Category 2 storm with 100 mph (160 kph) winds. The storm dumped heavy rains across the Mexican states of Jalisco, Colima and Michoacán as flash floods and landslides led to the deaths of at least seven people. Damage (primarily due to flood inundation) was reported to homes, businesses, agriculture and the transportation infrastructure after several rivers overflowed their banks. Total economic losses were listed at MXN370 million (USD27.7 million).

Ten days of rainfall from the remnants of Tropical Depression 12-E and additional tropical moisture led to the deaths of at least 115 people across much of Central America and southern Mexico between the 11th and the 21st. Fatalities were recorded in Guatemala (38), El Salvador (34), Honduras (15), Nicaragua (13), Mexico (10) and Costa Rica (5), in addition to widespread damage to property, infrastructure and agriculture. Tens of thousands of homes and businesses were damaged by flash floods and dozens of rivers overflowing their banks. More than 1 million people were directly impacted by the event.

South America

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
10/28	Earthquake	Peru	0	200+	Unknown

A magnitude-6.9 earthquake rattled the central coast of Peru on the 28th, leaving at least 103 people injured. The offshore tremor destroyed more than 134 homes and damaged several businesses and churches near the city of Ica.

Europe

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
10/23-10/26	Flooding	Italy, Ireland, Spain	9+	Hundreds+	92+ million

A strong storm system spawned torrential rains, flooding and mudslides across parts of Europe between the 23rd and the 26th. At least nine fatalities were recorded. In Italy, the worst affected areas came in the regions of Tuscany and Liguria, with the villages of Cinque Terre, Spezia, Aulla, Five Lands and Borghetto Vara sustaining the most significant damage. The floods swept away roads and bridges, and damaged hundreds of homes and businesses. The government released EUR65 million (USD92 million) for recovery efforts. Both Ireland and Spain saw inundation as well after several rivers overflowed their banks and damaged homes, businesses and infrastructure.

Africa

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
10/20-10/28	Flooding	Nigeria	10+	25,000+	Unknown

Nearly 10 days of heavy rainfall (beginning on October 20th) spawned widespread flooding across southern and central sections of Nigeria. At least 10 people died and 25,000 homes were submerged in areas around the city of Lagos and villages in Imo State after rivers overflowed their banks.

Asia

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/29-10/31	Flooding	Laos	34+	140,000+	174+ million
7/25-10/31	Flooding	Thailand	427+	3.3+ million	9.8+ billion
9/10-10/31	Flooding	Cambodia	250+	250,000+	521+ million
9/10-10/31	Flooding	Vietnam	58+	92,000+	71+ million
9/30-10/6	STY Nalgae	Philippines, China, Vietnam	13+	20,000+	Millions+

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
10/8-10/11	Flooding	Turkey	7+	500+	Unknown
10/11-10/12	TS Banyan	Philippines	10+	Hundreds+	Unknown
10/13	Earthquake	Indonesia	0	Hundreds+	Unknown
10/19-10/21	TS 02B	Myanmar	215+	8,000+	1.7+ million
10/23	Earthquake	Turkey	601+	15,000+	Millions+

Laos sustained another month of extensive flooding as high water levels in the Mekong River Delta occurred in response to an active monsoon season and the arrival of several tropical cyclones. The floods, which began in June, left at least 34 people dead and upwards of 140,000 homes destroyed. More than 64,400 hectares (160,000 acres) of rice paddy fields were submerged. Total economic losses were estimated at LAK1.4 trillion (USD174 million).

The worst flooding in decades continued to occur throughout much of Thailand during the month, as the death toll reached at least 427. In total, more than 9.9 million people were affected in at least 64 of Thailand's 77 provinces. Substantial damage was reported to personal and commercial property, with approximately 3.3 million homes and thousands of additional businesses sustaining various levels of flood inundation. The hardest-hit industries were to electrical appliances and equipment, medical equipment, automobiles and food and beverage manufacturers. The agricultural infrastructure was also impacted with more than 1.92 million hectares (4.74 million acres) of land having been damaged. Economic losses nationwide were estimated by the University of Thai Chamber of Commerce to reach THB300 billion (USD9.8 billion). Thailand's Office of Insurance Commission reported insured losses were already at least THB140 billion (USD4.6 billion).

The Cambodian government reported another month of flooding as flash floods and inundation along the Mekong River leading to the deaths of at least 250 people. More than 1.2 million people were impacted in 19 separate cities and provinces across the country. At least 250,000 homes, schools and religious sanctuaries were damaged or destroyed, in addition to more than 3,000 kilometers (1,864 miles) of roads. The agricultural infrastructure saw at least 400,000 hectares (988,000 acres) of rice paddy fields submerged as well. Total economic losses were estimated at KHR660 billion (USD161 million).

In Vietnam, continued flooding in the Mekong River Delta caused the deaths of at least 58 people. The Central Committee for Storm and Flood Control reported that more than 92,000 homes were destroyed and 99,000 hectares (245,000 acres) of rice and other crops were submerged. At least 1,455 kilometers (904 miles) of dykes and 1,300 kilometers (808 miles) of roads were damaged as well. Total economic losses were estimated at VND1.5 trillion (USD71.4 million).

Super Typhoon Nalgae made multiple landfalls in the Philippines, China and Vietnam between September 30th and October 6th, leading to at least 13 fatalities. In the Philippines, the typhoon brought torrential rainfall and extremely gusty winds throughout Luzon Island. According to the National Disaster Risk Reduction and Management Council, Nalgae damaged or destroyed at least 18,241 homes in addition to vast agricultural areas. Economic losses were listed at PHP115 million (USD2.6 million). In China, the Ministry of Civil Affairs noted that heavy rains from led to renewed flooding in multiple southern provinces. The final landfall in Vietnam saw a weakened Nalgae losing most of its wind strength, though heavy rains brought fresh flooding to central and southern sections of the country.

Persistent heavy rains and gusty winds in Turkey between the 8th and the 11th led to the deaths of at least seven people. Western and southern sections of the country in the Mediterranean and Aegean regions were particularly affected, where the inclement weather left serious damage to hundreds of homes and wide swaths of agricultural land. The transportation infrastructure was also impacted as numerous roads and bridges were either submerged or washed away.

Tropical Storm Banyan came ashore across central and southern sections of the Philippines on the 11th and 12th, leaving at least 10 people dead. According to the Philippines' National Disaster Risk Reduction and Management Council, Banyan dumped excessive rainfall that led to flash flooding and swollen rivers. Property damage was listed as minimal, though several main highways were closed due to flood damage.

A magnitude-6.1 earthquake rattled parts of Indonesia on the 13th, leaving dozens of people injured and causing widespread damage. The tremor struck at 11:16 AM (3:16 UTC) with an epicenter 100 kilometers (62 miles) southwest of Denpasar, Indonesia. According to reports from the region, the tremor damaged a significant number of structures though the damage was not labeled as substantial. Ceilings reportedly collapsed at multiple schools, hotels and at ancient Hindu temples, while homes and other structures saw various levels of façade damage or cracking as well.

Tropical Cyclone 02B came ashore in Bangladesh on the 19th, though its remnants led to extensive flooding across Myanmar. At least 215 people were killed as flash floods and river flooding in central and southern sections of the country damaged or destroyed more than 8,000 homes. The transportation and agricultural infrastructures were also impacted. Total economic losses were listed at MMK11 million (USD1.7 million).

A powerful earthquake struck eastern Turkey on the 23rd, killing at least 601 people and leaving more than 4,152 others injured. The magnitude-7.2 earthquake struck at 1:41 PM local time (10:41 UTC) with an epicenter 16 kilometers (9 miles) north-northeast of Van, Turkey at a relatively shallow depth of 20 kilometers (12.4 miles). Widespread substantial damage occurred throughout Van Province, with at least 11,232 buildings listed as destroyed or sustaining severe effects. Damage occurred to multi-level buildings, hotels, businesses and dormitories. Dozens of villages near the epicenter, where construction was poor, saw thousands of additional homes collapsing. Economic loss estimates suggested totals reaching at least well into the hundreds of millions of dollars (USD). According to the Turkish Catastrophe Insurance Pool in Van Province, only 7 percent of homes are covered by insurance.

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)
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There were no major natural disaster events in Oceania during the month of October.

APPENDIX

Updated Jan. 2011 – Sep. 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+
1/1-9/30	Drought	Texas	0	Unknown	5.2+ 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+	3.9+ 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+	275,000+	2.5+ billion
4/8-4/11	Severe Weather	Midwest, Southeast, Plains	0	290,000+	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	125,000+	1+ billion
4/22-4/28	Severe Weather	Southeast, Plains, Midwest	344+	700,000+	9+ 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+	5,000+	1+ billion
5/21-5/27	Severe Weather	Plains, Midwest, Southeast	185+	715,000+	8+ billion
5/25-7/5	Flooding	Souris River Basin	0	5,000+	1+ billion
5/28-5/30	Wildfires	Texas	0	12+	Unknown
5/28-6/1	Severe Weather	Plains, Midwest, Northeast	3+	30,000+	500+ 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

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
6/8-6/10	Severe Weather	Midwest, Northeast, Plains	0	35,000+	300+ million
6/14-6/15	Severe Weather	Southern Plains	0	20,000+	125+ million
6/16-6/22	Severe Weather	Midwest, Plains, Southeast	0	160,000+	1.25+ billion
6/26-6/30	Wildfires	New Mexico, Texas	0	100+	512+ million
6/30-7/4	Severe Weather	Midwest	2+	85,000+	700+ million
7/10-7/14	Severe Weather	Midwest, Rockies, Plains	0	120,000+	900+ million
7/22-7/24	Severe Weather	Midwest	0	25,000+	200+ million
7/29	TS Don	Texas	0	Unknown	Unknown
7/27-8/9	Wildfires	Oklahoma	2+	136+	20+ million
7/29-8/1	Severe Weather	Plains, Midwest, Northeast	0	50,000+	300+ million
8/7-8/10	Severe Weather	Plains, Midwest, Northeast	1+	Thousands+	Millions+
8/13-8/14	Severe Weather	Midwest, Mid-Atlantic	7+	Thousands+	Millions+
8/13-8/14	Flooding	Northeast, Ohio Valley	0	Thousands+	20+ million
8/18-8/19	Severe Weather	Plains	0	100,000+	750+ million
8/22	Earthquake	Colorado, New Mexico	0	Hundreds+	Unknown
8/23	Earthquake	Mid-Atlantic States	0	1,500+	250+ million
8/23-8/24	Severe Weather	Midwest, Ohio Valley	0	Thousands+	Millions+
8/26-8/28	HU Irene	Mid-Atlantic, Northeast	46+	25,000+	7.2+ billion
8/30-9/1	Wildfires	Texas, Oklahoma	0	77+	Millions+
9/1-9/15	Wildfires	Texas	4+	7,000+	500+ million
9/1-9/3	Severe Weather	Great Lakes	0	15,000+	125+ million
9/4-9/8	TS Lee	Southeast, Northeast	13+	80,000+	1+ billion

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+	800+ million
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	25+	50,000+	Millions+
7/5-7/7	Flooding	Dominican Republic	0	1,900+	Unknown
7/15-7/17	Flooding	Mexico, Guatemala	5+	40,000+	Unknown

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
7/17-7/19	Severe Weather	Canada	2+	1,000+	Millions+
8/3-8/7	TS Emily	Hispaniola, Puerto Rico	5+	10,000+	60+ million
8/9	Flooding	Canada	0	405+	8.03+ million
8/21-8/24	Severe Weather	Canada	1+	500+	Millions+
8/22-8/26	HU Irene	Caribbean, Bahamas, Canada	9+	Thousands+	1+ billion
9/19	Earthquakes	Guatemala	3+	388+	Unknown

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
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
7/16-7/18	Flooding	Brazil	10+	1,000+	Unknown
7/23-7/28	Flooding	Brazil	3+	Thousands+	Unknown
9/6-9/9	Flooding	Brazil	3+	48,000+	Millions+

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
6/28	Severe Weather	Netherlands	0	Hundreds+	Millions+
7/2-7/3	Flooding	Denmark	0	60,000+	650+ million
7/8	Flooding	Scotland	0	100+	1+ million

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
8/18	Severe Weather	Belgium	5+	Unknown	Unknown
9/12-9/13	PT Katia	United Kingdom	1+	Hundreds+	158+ 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
6/21-6/22	Flooding	Nigeria	24+	1,000+	4.5+ million
7/22-7/29	Flooding	Benin	0	1,000+	Unknown
8/10-8/31	Flooding	Uganda	43+	30,000+	Unknown
8/20-8/31	Flooding	Nigeria	102+	10,000+	Unknown

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	15,829+	1+ million	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

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
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
5/15-7/15	Flooding	Nepal	75+	500+	Millions+
5/26-5/29	STY Songda	Philippines, Japan	17+	1,000+	3+ million
6/1-6/24	Flooding	China	199+	500,000+	5.41+ billion
6/1-6/19	Flooding	Philippines	10+	1,000+	9.4+ million
6/1-8/12	Drought	China	0	Unknown	923+ 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
6/29-10/31	Flooding	Laos	34+	140,000+	174+ million
7/1-7/8	Flooding	China	49+	100,000+	989+ million
7/9-7/11	Flooding	South Korea	9+	500+	Millions+
7/11-7/14	Flooding	China	6+	5,000+	54.1+ million
7/18-7/20	TY Ma-on	Japan	5+	Hundreds+	50+ million
7/19	Earthquake	Kyrgyzstan, Tajikistan, Uzbekistan	14+	1,500+	9.3+ million
7/22-7/25	Flooding	China	54+	150,000+	962+ million
7/25-10/31	Flooding	Thailand	427+	3.3+ million	9.8+ billion
7/26-7/29	Flooding	South Korea, North Korea	100+	20,000+	200+ million
7/27-7/30	TY Nock-ten	Philippines, China, Vietnam	94+	340,000+	126+ million
7/27-7/31	Flooding	Japan	3+	3,000+	Millions+
7/28-8/2	Flooding	China	13+	25,000+	52.7+ million
7/31	Severe Weather	Russia	1+	250+	3+ million
8/8-8/10	TY Muifa	China, Philippines, Korea	22+	20,000+	658+ million
8/9	Earthquake	China	0	22,800+	Millions+
8/11	Earthquake	China	0	318+	Unknown
8/12-9/30	Flooding	Pakistan	456+	1.6+ million	2+ billion
8/13-8/17	Flooding	China	10+	Thousands+	323+ million
8/20-8/29	Flooding	India	47+	Thousands+	275+ million
8/22	Flooding	China	0	300+	9.22+ million
8/27-8/31	TY Nanmadol	Philippines, Taiwan, China	37+	10,000+	250+ million
9/1-9/22	Flooding	China	101+	250,000+	4.25+ billion
9/2-9/4	TS Talas	Japan	68+	25,117+	300+ million
9/5-9/15	Flooding	India	42+	25,000+	432+ million
9/6	Earthquake	Indonesia	10+	1,000+	5.85+ million

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
9/10-10/31	Flooding	Cambodia	250+	250,00+	521+ million
9/10-10/31	Flooding	Vietnam	43+	70,000+	55+ million
9/18	Earthquake	India, Bhutan, Tibet	116+	140,000+	204+ million
9/21-9/22	TY Roke	Japan	13+	4,819+	250+ million
9/23-9/28	Flooding	India	51+	50,000+	568+ million
9/23-9/25	Flooding	Turkey	1+	Hundreds+	Unknown
9/27-9/30	TY Nesat	Philippines, China, Vietnam	88+	65,000+	1.57+ billion

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	Australia (Queensland)	35+	57,731+	7.2+ billion
1/13-1/18	Flooding	Australia (Victoria)	1+	7,791+	150+ 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+	71,345+	1.8+ billion
2/4-2/6	Severe Weather	Australia	0	48,962+	420+ million
2/5-2/6	Bushfire	Australia	0	410+	50+ 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	182+	156,313+	12+ billion
2/28	Severe Weather	Australia	0	170+	1.02+ million
3/20-3/21	Flooding	Australia (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
6/9-6/16	Flooding	Australia (New South Wales)	1+	1,500+	38+ million
6/13	Earthquake	New Zealand	1+	53,963+	1.5+ billion
6/19	Severe Weather	New Zealand	0	50+	810,500+
7/5	Severe Weather	Australia (New South Wales)	0	1,700+	Unknown
7/19-7/22	Flooding	Australia (NSW, Victoria)	0	1,273+	Unknown
7/27-7/28	Severe Weather	Australia (Western Australia)	0	60+	Unknown
8/13	Severe Weather	Western Australia	0	10+	1.05+ million
9/17	Severe Weather	Australia (Western Australia)	0	114+	Unknown

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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