

October 2012 Global Catastrophe Recap



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Executive Summary

- Sandy makes landfall in the U.S. as a post-tropical cyclone and causes extensive damage; 113 dead
- Four other tropical cyclones cause notable impacts around the globe during the month of October
- Death toll rises to 363 in on-going Nigerian floods

Hurricane Sandy made landfall in the U.S. state of New Jersey as a post-tropical cyclone, causing exceptional damage in the state and also in New York City. At least 113 people were killed. Heavy rainfall, storm surge, high winds, inland flooding, fires and heavy snow were all recorded in association with Sandy, as up to 60 million people in 24 states were affected. Preliminary state-released government estimates indicate that total economic losses will approach or exceed USD30 billion¹. Although publicly-released industry estimates suggest that total insured losses are likely to approach or exceed USD10 billion, Impact Forecasting has not externally released its own modeled estimate.

Prior to landfall in the U.S., Sandy tracked through the Caribbean and the Bahamas, where the hurricane made landfalls in Jamaica and Cuba. After exiting the U.S., Sandy also affected Canada. Non-U.S. impacts from Sandy included: *Jamaica* (1 dead, economic losses JMD5 billion (USD55 million)); *Cuba* (11 dead, 218,000 homes and other buildings damaged or destroyed, economic losses CUP53 billion (USD2 billion)), *Haiti* (54 dead, up to 75,000 homes damaged, economic losses HTG3.1 billion (USD74 million)), *Dominican Republic* (2 dead, 3,500 homes destroyed), *Puerto Rico* (1 dead), *the Bahamas* (2 dead, economic loss USD300 million, insured loss up to USD100 million), *Canada* (2 dead).

In other tropical cyclone news, Typhoon Son-tinh made landfall in Vietnam after initially crossing the Philippines and later entering China. At least 36 people were killed and nearly 59,000 homes were damaged or destroyed. Total economic losses included PHP155 million (USD4 million) in the Philippines, VND2.69 trillion (USD129 million) in Vietnam and CNY1.13 billion (USD197 million) in China.

Tropical Storm Nilam made landfall in southern India after first brushing by Sri Lanka. At least 59 people were killed. Economic losses were listed at INR2.0 billion (USD37 million).

Hurricane Paul made landfall as a rapidly weakening storm in Mexico, causing MXN200 million (USD15.5 million) in infrastructure damage. Hurricane Rafael caused minimal damage in the Atlantic.

Also in October, major flooding continued across much of Nigeria as the death toll rose to at least 363. More than 2.1 million residents were displaced from their homes due to flood damage and the government sought NGN100 billion (USD636 million) to cover the extensive damage.

Flooding events were also recorded in Colombia, Argentina, Italy, Benin, Indonesia, China, and Sweden.

Thunderstorms spawned a severe hailstorm and flooding rains throughout parts of South Africa, including in the city of Johannesburg. Golf ball-sized hail led to as many as 25,000 claims being filed with payouts expected to reach ZAR1 billion (USD114 million). Thirteen people were killed.

Severe weather also caused notable damage in the United States and Bangladesh.

A magnitude-7.7 earthquake struck a sparsely populated area of western Canada, though damage was minimal. No injuries or fatalities were reported.

¹ New York Governor revised the economic loss estimate for NY to USD33 billion on Nov. 8; this increase is not reflected in the USD30 billion figure, which included an initial USD18 billion estimate for NY.

United States

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
10/17-10/18	Severe Weather	Mississippi Valley, Midwest	0	Thousands+	Millions+
10/27-10/30	HU Sandy	Northeast, Mid-Atlantic, Southeast, Ohio Valley	113+	100s of thousands+	30+ billion

Powerful thunderstorms crossed parts of the Mississippi Valley and the Midwest on the 17th and 18th, injuring at least seven people. Tornadoes, hail and damaging winds were all recorded by the Storm Prediction Center (SPC). The hardest-hit areas came in Mississippi, where at least ten counties cited heavy structural damage after nine confirmed tornadoes (including an EF-3 with 140 mph (220 kph) winds in Scott and Newton counties) and straight-line winds struck the region. Additional damage occurred along the leading edge of the cold front which stretched from Illinois to Louisiana.

Hurricane Sandy made landfall in New Jersey as a post-tropical cyclone on the 29th, causing exceptional damage in the state and also in New York City. Heavy rainfall, record storm surge, high winds, inland flooding, fires and heavy snow were all recorded in association with Sandy. Impacts were felt along the entire Atlantic coastline from Florida to Maine, before the storm's remnants later affected the Mid-Atlantic, Ohio Valley and the Midwest. At least 113 people were killed. Select effects included more than 8.5 million power outages, 21,000 flight cancellations, extensive infrastructure damage, a two-day shutdown of the New York Stock Exchange and NASDAQ, and nuclear reactor shutdowns. Preliminary state-released government estimates indicate that total economic losses will approach or exceed USD30 billion. Although publicly-released industry estimates suggest that total insured losses are likely to approach or exceed USD10 billion, Impact Forecasting has not externally released its own modeled estimate. Sandy will become one of the costliest natural disasters in U.S. history.

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

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
10/13-10/18	HU Rafael	Caribbean, Bermuda, Canada	1+	500+	2.0+ million
10/16-10/17	HU Paul	Mexico	0	600+	15.5+ million
10/23-10/27	HU Sandy	Caribbean, Hispaniola, Bahamas	72+	300,000+	2.35+ billion
10/27	Earthquake	Canada	0	Unknown	Unknown

Hurricane Rafael affected portions of the Caribbean and Bermuda between the 13th and the 17th before its remnants brought large swells to Atlantic Canada on the 18th. Rafael triggered periods of flooding rains and tropical storm-force winds to Bermuda and the Eastern Caribbean though governments cited generally minimal damage. At least one person was killed in Guadeloupe. In Canada's Newfoundland, surf damage totaled CAD2 million (USD2 million).

A weakened Hurricane Paul grazed Mexico's Baja California on the 16th and the 17th before rapidly dissipating. The system brought flooding rains to some areas, though widespread effects were limited. Approximately 600 homes were damaged by floodwaters in the towns of Comondú and Loreto. The city of La Paz tallied MXN200 million (USD15.5 million) in damage to infrastructure.

Hurricane Sandy tracked through the Caribbean and the Bahamas between the 23rd and the 27th prior to heading towards the United States. The storm officially made separate landfalls in Jamaica (Category 1) and Cuba (Category 2). In Jamaica, one person was killed as extensive wind and flood damage occurred to agriculture, infrastructure and homes. Total economic losses were listed at JMD5 billion (USD55 million). In Cuba, at least 11 people were killed as storm surge, high winds and flooding damaged or destroyed at least 215,000 homes and another 3,000 buildings. Most of the damage occurred in Santiago de Cuba, where economic losses were expected to top CUP53 billion (USD2 billion). In Haiti, 54 people were killed and as many as 75,000 homes were damaged by widespread flooding. In the Dominican Republic, two people were killed and 3,500 homes were destroyed. Puerto Rico saw one flood-related fatality. Shifting to the Bahamas, two people were killed as local officials estimated total economic damages of USD300 million. Total insured losses were anticipated to reach as high as USD100 million. Two people were also later killed in Canada, though damage was not significant.

Canada's second-strongest recorded earthquake since 1700 struck far western sections of the country on the 27th. The magnitude-7.7 earthquake occurred at 8:04 PM local time (3:04 UTC on the 28th) with an epicenter 139 kilometers (86 miles) south of Masset, Canada. Despite the large size of the earthquake – and tsunami warnings being issued for parts of the Pacific Basin – damage was largely minimal as the tremor occurred in a rather sparsely populated region within Canada's Haida Gwaii archipelago. Smaller than expected tsunami waves were recorded along the coasts of Canada, Alaska and Hawaii.

South America

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
10/5-10/19	Flooding	Colombia	12+	3,500+	Unknown
10/29-10/31	Flooding	Argentina	1+	1,500+	Millions+

Heavy rainfall between the 5th and the 19th prompted widespread flooding and mudslides across southwestern sections of Colombia. At least 12 people died and 18 others were injured, primarily in the department of Huila. More than 3,500 homes were damaged or destroyed.

Torrential rainfall impacted multiple sections of Argentina between the 29th and the 31st, killing at least one person. Much of the flooding was concentrated in the greater Buenos Aires metropolitan region, including the towns of Luján, Olivera, Jáuregui, and Pueblo Nuevo, after several rivers overflowed their banks. More than 1,500 homes were damaged or destroyed as the floods also inundated or submerged subways and rail lines. Widespread power outages were recorded throughout the city as well.

Europe

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
10/7	Flooding	Sweden	0	Hundreds+	Unknown
10/22-10/25	Flooding	Turkey	6+	Hundreds+	Millions+
10/26	Earthquake	Italy	1+	Hundreds+	Unknown
10/27-11/2	Flooding	Italy	0	Thousands+	Millions+

Torrential rains on the 7th across northern Sweden prompted the Åby River to overflow its banks. The floods damaged dozens of homes in the province of Västerbotten, while also forcing the closure of at least nine main roadways due to submersion and damage. No injuries or fatalities occurred.

Torrential rains inundated Turkey’s western region of Thrace on the 22nd and 23rd, spawning flash floods that killed six people. The provinces of Kırklareli, Tekirdağ, Çanakkale, Balıkesir and Istanbul sustained the brunt of the damage as multiple meters (feet) of floodwaters damaged or destroyed hundreds of homes. Total economic losses were expected to reach well into the millions of dollars (USD).

A magnitude-5.3 earthquake struck southern Italy on the 26th, killing at least one person. The tremor occurred at 1:05 AM local time (23:05 UTC October 25th) with an epicenter 5 kilometers (3 miles) west of Morano Calabro, Italy. In terms of damage, local officials in the towns of Mormanno, Laino Borgo and Santa Maria della Consolazione reported that hundreds of homes, churches and medical buildings had sustained cracking. However, no widespread structural damage was evident.

The combination of heavy rainfall, gusty winds and the start of the ‘acqua delta’ (high water) season led to nearly 60% of Venice, Italy being underwater. The floods, which began on October 27th, inundated a large number of homes and businesses throughout the city center. High tides from the Adriatic Sea only added to the depth of the floodwaters, which were recorded at 143 centimeters (4.69 feet) during the peak.

Africa

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
7/22-10/31	Flooding	Nigeria	363+	500,000+	636+ million
9/1-10/31	Flooding	Benin	4+	12,000+	Unknown
10/20-10/22	Severe Weather	South Africa	13+	25,000+	200+ million

Torrential rains prompted widespread flooding across much of Nigeria between mid-July and October. The floods affected at least 30 separate states, as government officials confirmed the deaths of 363 people and more than 18,000 injuries. The floods were enhanced after several large rivers overflowed their banks. As many as 500,000 homes were damaged, displacing 2.1 million residents. The government sought NGN100 billion (USD636 million) for reconstruction and aid to cover the extensive damage.

Periods of heavy rainfall during September and October prompted the Niger River to burst its banks in northern and central Benin. At least four people were killed. According to government officials, as many as 55,000 people from 12,000 homes were affected as the floods caused major damage. The hardest-hit areas included Karimama and Malanville, where floodwaters also destroyed roads, bridges and large swaths of agriculture.

Powerful thunderstorms spawned a severe hailstorm and flooding rains throughout parts of South Africa between the 20th and the 22nd. The province of Gauteng (including the city of Johannesburg) was amongst the hardest-hit, as golf ball-sized hail shattered windows and dented roofs in homes and vehicles. Local insurers received up to 25,000 home and auto claims with payouts expected to reach ZAR1 billion (USD114 million). Also, flooding rains affected the provinces of Western Cape, Eastern Cape and KwaZulu-Natal as rivers overflowed their banks. At least 13 people were killed as hundreds of homes, businesses and vehicles were damaged or destroyed in addition to infrastructure.

Asia

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
10/4	Landslide	China	19+	Unknown	Unknown
10/10	Severe Weather	Bangladesh	36+	23,380+	Unknown
10/21	Flooding	Indonesia	0	500+	Unknown
10/24-10/29	TY Son-tinh	Philippines, Vietnam, China	36+	58,394+	330+ million
10/29-10/31	TS Nilam	India, Sri Lanka	59+	50,000+	37+ million

A large landslide in the Chinese village of Zhenhe in Yunnan Province on the 4th left at least 19 people dead. Nearly all of the fatalities occurred after the landslide buried a school building with students inside.

A monsoonal storm brought inclement weather along Bangladesh's coastline on the 10th, killing at least 36 people. More than 24,380 mud-built homes were destroyed in the districts of Noakhali, Bhola, Cox's Bazaar, and Chittagong – including many by tornado touchdowns and flooding. The storms also damaged agriculture.

Excessive rainfall struck eastern Indonesia's Papua region on the 21st, prompting significant flooding in multiple districts. In the district of Panja, the Eranouli River overflowed its banks and damaged at least 500 homes and other structures in Eranouli village alone. No injuries or fatalities were reported.

Typhoon Son-tinh made landfall in Vietnam on the 29th after initially crossing the Philippines and later entering China. At least 36 people were killed. Government officials in the Philippines noted that flooding and landslides killed 27 people in addition to damaging at least 2,794 homes. Damage was listed at PHP155 million (USD4 million). In Vietnam, at least eight people were killed and 43 others were injured across the provinces of Thai Binh, Nam Dinh, Ninh Binh, Quang Ninh and Hai Phong. More than 50,300 homes were destroyed and 90,000 hectares (222,000 acres) of crops were damaged. Total economic losses were listed at VND2.69 trillion (USD129 million). China's Ministry of Civil Affairs noted that 5,300 homes were damaged or destroyed and 65,400 hectares (152,000 acres) of cropland were affected in the provinces of Hainan and Guangxi. Total economic losses were CNY1.13 billion (USD197 million).

Tropical Storm Nilam made landfall in southern India on the 31st after first brushing by Sri Lanka. At least 59 people were killed. According to state authorities in India's Andhra Pradesh and Tamil Nadu, Nilam's torrential rainfall and a 1.5-meter (5-foot) storm surge left more than 150,000 people homeless. Severe crop damage and power outages occurred as well. Similar impacts were felt in Sri Lanka, as the nation's Disaster Management Center reported that more than 69,000 people were left homeless by flooding. Total economic losses were listed at INR2.0 billion (USD37 million).

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

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
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No major natural disaster events occurred in Oceania during the month of October.

APPENDIX

Updated January– September 2012 Data

United States

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
1/8-1/12	Winter Weather	Plains, Southeast, Northeast	0	Thousands+	Millions+
1/12-1/13	Winter Weather	Midwest, Ohio Valley, Northeast	0	Thousands+	Millions+
1/16-1/17	Severe Weather	Midwest, Southeast, Northeast	0	Thousands+	25+ million
1/17-1/22	Winter Weather	Pacific Northwest	3+	1,000+	100+ million
1/19-1/21	Wildfires	Nevada	0	29+	9.1+ million
1/22-1/23	Severe Weather	Southeast, Plains	3+	10,000+	175+ million
2/17-2/18	Severe Weather	Plains, Southeast	0	Hundreds+	Unknown
2/20	Severe Weather	Plains	1+	Thousands+	Millions+
2/22	Severe Weather	Southeast	1+	250+	1.6+ million
2/24	Severe Weather	Southeast, Mid-Atlantic	0	Hundreds+	Millions+
2/28-2/29	Severe Weather	Midwest, Plains, Southeast	14+	25,000+	500+ million
3/2-3/3	Severe Weather	Midwest, Southeast	41+	280,000+	4+ billion
3/4-3/9	Flooding	Hawaii	0	Hundreds+	37.5+ million
3/12	Flooding	Louisiana	0	1,500+	2+ million
3/14-3/15	Severe Weather	Great Lakes	0	20,000+	275+ million
3/18-3/25	Severe Weather	Plains, Midwest, Southeast	1+	37,500+	325+ million
3/26-4/2	Wildfire	Colorado	3+	25+	Unknown
3/26-4/30	Winter Weather	Michigan	0	Unknown	500+ million
3/29-3/31	Severe Weather	Plains, Midwest, Southeast	0	35,000+	400+ million
4/2-4/4	Severe Weather	Texas	0	120,000+	1.3+ billion
4/11	Severe Weather	California	0	Unknown	79+ million
4/13-4/15	Severe Weather	Plains, Midwest	6+	50,000+	1.75+ billion
4/20	Severe Weather	Texas	0	15,000+	90+ million
4/28-4/29	Severe Weather	Midwest	1+	350,000+	4.0+ billion
5/2-5/6	Severe Weather	Midwest, Plains, Mid-Atlantic	0	30,000+	275+ million
5/13-6/30	Wildfires	West, Midwest	0	375+	50+ million
5/25-5/30	Severe Weather	Plains, Midwest, Northeast	0	190,000+	2.5+ billion
5/28	TS Beryl	Southeast	4	Unknown	10+ million
6/1-10/31	Drought	United States	0	Unknown	Billions+
6/2-6/4	Severe Weather	Plains, Midwest, Ohio Valley	3+	Hundreds+	Millions+
6/6-6/7	Severe Weather	Colorado, Wyoming	0	120,000+	1.75+ billion
6/9-6/11	Flooding	Southeast	2+	1,000+	174+ million
6/9-6/30	Wildfire	Colorado	1+	850+	136+ million
6/11-6/13	Severe Weather	Texas, New Mexico	0	130,000+	1.75+ billion
6/17-6/18	Severe Weather	Upper Midwest	0	12,500+	115+ million
6/19-6/20	Flooding	Minnesota	0	15,000+	125+ million
6/23-6/27	TS Debby	Florida	7+	20,000+	200+ million

6/23-7/10	Wildfire	Colorado	2+	10,000+	500+ million
6/28-7/2	Severe Weather	Midwest, Mid-Atlantic, Plains	28+	425,000+	3.75+ billion
6/30-7/19	Heat Wave	United States	100+	Unknown	Unknown
7/2-7/4	Severe Weather	Midwest, Ohio Valley, Northeast	1+	60,000+	500+ million
7/26-7/27	Severe Weather	Northeast	2+	15,000+	175+ million
8/3-8/9	Wildfires	Oklahoma	1+	1,000+	100+ million
8/9-8/10	Severe Weather	Great Lakes	0	Thousands+	175+ million
8/13-8/31	Wildfires	West	1+	300+	110+ million
8/26-8/31	HU Isaac	Gulf Coast	7+	28,000+	2+ billion
9/7-9/8	Severe Weather	Plains, Northeast, Mid-Atlantic	4+	35,000+	225+ million
9/10-9/11	Flooding	Desert Southwest	0	500+	Unknown
9/21-9/22	Severe Weather	Great Lakes, Plains	0	20,000+	175+ million
9/23	Wildfire	California	1+	38+	Unknown

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

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
2/11-2/12	Flooding	Canada	0	200+	Unknown
3/20	Earthquake	Mexico	2+	44,000+	815+ million
4/23-4/25	Flooding	Hispaniola	10+	3,000+	Unknown
4/28-4/29	Winter Weather	Canada	0	Unknown	100+ million
5/15-5/31	Flooding	Nicaragua	9+	5,900+	Unknown
5/24-5/27	Flooding	Cuba	2+	1,200+	Unknown
5/25-5/29	Flooding	Canada	0	Thousands+	Millions+
6/1	Flooding	Canada	0	Unknown	Unknown
6/5-6/6	Severe Weather	Canada	0	Hundreds+	10+ million
6/9-6/10	Severe Weather	Canada	0	2,500+	Millions+
6/15	HU Carlotta	Mexico	7+	31,500+	105+ million
6/26-6/30	Severe Weather	Canada	0	Unknown	9+ million
7/1-7/23	Flooding	Guatemala	0	1,010+	Unknown
7/11-7/12	Severe Weather	Canada	0	10,000+	175+ million
7/22-7/23	Severe Weather	Canada	0	10,000+	150+ million
7/23-7/31	Flooding	Central America	1+	4,150+	Unknown
7/26	Severe Weather	Canada	0	2,500+	80+ million
8/3-8/10	HU Ernesto	Caribbean, Mexico	7+	Hundreds+	Unknown
8/12	Severe Weather	Canada	0	10,000+	200+ million
8/17-8/18	TS Helene	Mexico, Caribbean	2+	Hundreds+	17+ million
8/22-8/26	HU Isaac	Caribbean	34+	1,000+	Unknown
9/5	Earthquake	Costa Rica	3+	500+	45+ million
9/8-9/11	HU Leslie	Canada, Bermuda	0	Hundreds+	10+ million

South America

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
12/24-1/6	Wildfires	Chile	7+	Hundreds+	200+ million
1/1-1/10	Flooding	Brazil	39+	25,000+	Millions+
1/1-3/25	Flooding	Ecuador	30+	4,000+	Unknown
1/30	Earthquake	Peru	0	858+	Unknown
2/8-2/9	Flooding	Peru	14+	11,000+	Unknown
2/10-2/29	Flooding	Brazil, Bolivia	1+	37,300+	10+ million
3/11-3/16	Flooding	Chile	0	6,500+	3.1+ million
3/24-3/31	Flooding	Colombia	5+	5,000+	170+ million
3/25	Earthquake	Chile	0	Hundreds+	100+ million
4/2-4/30	Flooding	Paraguay	0	13,654+	Unknown
4/4	Severe Weather	Argentina	18+	32,000+	10+ million
4/5-4/27	Flooding	Colombia, Peru	19+	25,000+	170+ million
5/1-5/20	Flooding	Brazil	0	75,000+	226+ million
5/8-5/11	Flooding	Venezuela	0	2,200+	93+ million
7/15-7/30	Flooding	Colombia	0	15,000+	Millions+
9/19	Severe Weather	Paraguay, Uruguay, Bolivia	9+	6,000+	Millions+

Europe

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
1/3-1/4	WS Ulli	UK, Scandinavia	2+	5,000+	500+ million
1/4-1/5	WS Andrea	UK, Northern Europe	0	Thousands+	650+ million
1/24-2/17	Winter Weather	Eastern/Central Europe	824+	Unknown	775+ million
2/7-2/8	Winter Weather	Ukraine	0	Unknown	2+ million
2/7-2/9	Flooding	Bulgaria, Greece	12+	Hundreds+	4.4+ million
3/26	Earthquake	Turkey	0	Hundreds+	Unknown
4/20	Wildfire	Russia	1+	65+	Unknown
4/22-4/27	Flooding	Russia	0	3,957+	17+ million
5/7	Earthquake	Azerbaijan	0	3,124+	Unknown
5/12	Flooding	Georgia	5+	5,000+	4.9+ million
5/18	Earthquake	Azerbaijan	0	7,000+	Unknown
5/20	Earthquake	Italy	7+	3,000+	6.25+ billion
5/29	Earthquake	Italy	18+	5,000+	
6/1-9/30	Drought	Italy	0	Unknown	1.23+ billion
6/1-9/30	Drought	Russia	0	Unknown	1.14+ billion
6/1-9/30	Drought	Slovenia	0	Unknown	162+ million
6/4	Severe Weather	Ukraine	0	150+	Unknown
6/10	Earthquake	Turkey, Greece	0	Hundreds+	Unknown
6/10-6/11	Flooding	United Kingdom	0	20,000+	450+ million
6/11	Severe Weather	Italy	0	Hundreds+	12.6+ million
6/23-6/24	Flooding	United Kingdom	1+	48,000+	800+ million

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
6/30-7/8	Severe Weather	Central Europe	9+	Hundreds+	25+ million
7/7	Flooding	Russia	171+	7,000+	280+ million
7/11	Severe Weather	Slovenia	0	Thousands+	5+ million
7/14	Severe Weather	Poland	1+	100+	5.9+ million
7/19	Severe Weather	Georgia	0	20,000+	91+ million
7/22-7/27	Wildfire	Spain, Greece	4+	Unknown	Unknown
8/10-8/31	Wildfires	Spain, France, Croatia, Greece	3+	Unknown	Unknown
8/13	Severe Weather	Ukraine	0	Hundreds+	Unknown
9/9	Winter Weather	Iceland	0	Hundreds+	2.43+ million
9/24-9/25	Flooding	United Kingdom	3+	570+	81+ million
9/27-9/29	Flooding	Spain	10+	19,500+	200+ million

Africa

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
1/16-1/17	Flooding	Mozambique, South Africa	10+	5,000+	Unknown
1/20-1/26	CY Funso	Mozambique, Malawi	40+	10,000+	100+ million
2/13	Severe Weather	Nigeria	15+	3,000+	1+ million
2/14	CY Giovanna	Madagascar	35+	50,000+	100+ million
2/26-3/7	CY Irina	Madagascar, Mozambique	84+	35,000+	Millions+
4/12	Flooding	Rwanda	5+	2,232+	Unknown
4/20-4/28	Flooding	Comoros	0	9,338+	3.8+ million
4/24-5/15	Flooding	Kenya	50+	50,000+	130+ million
6/23-6/25	Flooding	Uganda	30+	100+	Unknown
7/22-7/24	Flooding	Nigeria	39+	600+	Unknown
8/1-8/10	Flooding	Chad	0	15,000+	20+ million
8/1-8/12	Flooding	Sudan	35+	30,000+	Unknown
8/1-8/31	Flooding	Niger	91+	50,000+	1.3+ million
8/11-8/12	Flooding	Nigeria	431+	150,000+	636+ million
8/15-8/31	Flooding	Senegal	19+	Thousands+	10+ million
8/25-8/31	Flooding	Cameroon	15+	22,000+	Millions+
9/27-9/28	Flooding	Somalia	20+	3,500+	Unknown

Asia

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
1/1-1/31	Winter Weather	Japan	56+	Thousands+	Millions+
1/1-2/7	Winter Weather	China	0	10,000+	2.1+ million
1/5	Landslide	Philippines	42+	100+	Unknown
1/5	Severe Weather	Indonesia	0	500+	30+ million
1/8	Earthquake	China	0	9,000+	Unknown
1/16-1/17	Winter Weather	Afghanistan	46+	Unknown	Unknown

1/21	Earthquake	Indonesia	0	450+	1.3+ million
1/21-1/24	Winter Weather	China	0	1,000+	4.4+ million
1/25	Severe Weather	Indonesia	14+	2,000+	1+ million
2/6	Earthquake	Philippines	116+	53,000+	250+ million
2/7-2/9	Winter Weather	China	0	10,000+	20.2+ million
2/15-2/16	Winter Weather	China	0	1,000+	4+ million
2/18	Landslide	India	6+	Unknown	Unknown
2/19	Flooding	Philippines	0	5,000+	Unknown
2/22	Winter Weather	India	16+	Unknown	Unknown
2/25	Severe Weather	Indonesia	5+	100+	Unknown
3/4	Winter Weather	Afghanistan	50+	100+	Unknown
3/9	Earthquake	China	0	20,000+	82.7+ million
3/12	Winter Weather	Afghanistan	45+	50+	Unknown
3/15-3/18	Severe Weather	Thailand	0	200+	Unknown
3/16-3/20	Severe Weather	Indonesia	0	12,000+	Unknown
3/17	Flooding	China	0	578+	32+ million
3/20	Flooding	India	3+	15,862+	1+ million
3/27	Flooding	Philippines	11+	10,000+	2.1+ million
4/1	Severe Weather	Sri Lanka	0	1,200+	Unknown
4/1	TY Pakhar	Vietnam	2+	5,000+	Unknown
4/3-4/5	Severe Weather	Japan	4+	Hundreds+	Unknown
4/5	Severe Weather	China	0	20,000+	120+ million
4/11-4/18	Flooding	Saudi Arabia, Oman	18+	Thousands+	Millions+
4/20-4/25	Severe Weather	China	12+	25,400+	84+ million
4/20-4/25	Severe Weather	Vietnam	2+	4,780+	5+ million
4/22	Flooding	Afghanistan	16+	1,140+	Unknown
4/23-4/29	Flooding	Kyrgyzstan	0	2,500+	Unknown
4/28-5/15	Severe Weather	China	102+	143,000+	2.68+ billion
5/5	Flooding	Nepal	60+	1,000+	Unknown
5/6	Severe Weather	Japan	3+	1,904+	Millions+
5/6-5/11	Flooding	Afghanistan	47+	1,000+	Unknown
5/9	Flooding	Indonesia	5+	200+	Unknown
5/19	Flooding	Afghanistan	19+	Unknown	Unknown
5/20-5/24	Flooding	China	16+	19,300+	378+ million
5/27-5/30	Flooding	China	7+	16,000+	119+ million
6/1-6/3	Flooding	Philippines	3+	Unknown	Unknown
6/3-6/5	Flooding	Thailand	3+	5,000+	1+ million
6/5-6/12	Flooding	Taiwan	6+	7,000+	16.9+ million
6/8-6/12	Flooding	China	23+	53,000+	393+ million
6/11	Earthquake	Afghanistan	71+	50+	Unknown
6/12	Earthquake	China	0	1,900+	1.1+ million
6/12-6/13	Flooding	Philippines	13+	283+	Unknown
6/15-6/19	STY Guchol	Japan, Philippines	2+	1,000+	100+ million

6/18-6/20	Severe Weather	China	0	200+	82+ million
6/20-6/24	Severe Weather	China	5+	4,500+	124+ million
6/20-6/29	Flooding	China	50+	123,000+	2.73+ billion
6/22	Flooding	Afghanistan	37+	500+	Unknown
6/23-7/1	Flooding	India, Bangladesh	232+	600,000+	90+ million
6/24	Earthquake	China	4+	88,000+	300+ million
6/28-7/10	Flooding	China	70+	188,400+	1.19+ billion
6/30	Earthquake	China	0	71,500+	Millions+
7/3-7/5	Flooding	Japan	1+	460+	Millions+
7/11-7/16	Flooding	Japan	30+	16,045+	Millions+
7/11-7/17	Flooding	China	30+	76,000+	600+ million
7/18-7/31	Flooding	North Korea	119+	17,030+	Unknown
7/19	Flooding	Nepal	0	2,030+	Unknown
7/20-7/24	Flooding	China	149+	175,000+	4.8+ billion
7/24	Flooding	Indonesia	8+	125+	Unknown
7/24	TY Vicente	China, Vietnam	18+	13,000+	329+ million
7/27-8/2	Flooding	China	76+	36,000+	1.69+ billion
7/29-8/3	TY Saola	China, Philippines, Taiwan	82+	25,000+	161+ million
7/31	Flooding	Indonesia	8+	754+	Unknown
8/1-8/3	TY Damrey	China	14+	300,000+	3.28+ billion
8/3-8/9	Flooding	India	34+	Thousands+	110+ million
8/5-8/8	Flooding	Philippines	109+	12,962+	239+ million
8/7-8/9	TY Haikui	China	6+	48,250+	2.04+ billion
8/11	Earthquake	Iran	306+	50,000+	600+ million
8/15-8/18	TY Kai-tak	Philippines, China, Vietnam	40+	33,635+	272+ million
8/15-9/30	Flooding	Thailand	0	88,438+	Unknown
8/18	Earthquake	Indonesia	6+	1,108+	Unknown
8/21-8/23	Flooding	India	27+	7,500+	Unknown
8/21-10/31	Flooding	Pakistan	451+	465,424+	2.64+ billion
8/23-8/30	TY Tembin	Taiwan, Korea	2+	Hundreds+	6.7+ million
8/25-8/28	STY Bolaven	Korea, Japan	68+	15,000+	450+ million
8/28-8/30	Flooding	India	26+	1,892+	16+ million
8/29-8/30	Flooding	China	0	35,000+	4.63+ billion
8/31	Earthquake	Philippines	1+	300+	Unknown
8/31-9/6	Flooding	China	5+	38,700+	151+ million
9/4-9/11	Flooding	Vietnam	32+	10,180+	22+ million
9/7	Earthquake	China	81+	452,700+	1.15+ billion
9/7-9/13	Flooding	China	21+	100,000+	4.92+ billion
9/11	Earthquake	China	0	17,200+	17+ million
9/14	Flooding	India	47+	500+	20+ million
9/14	Earthquake	China	0	1,600+	127+ million
9/15-9/17	STY Sanba	South Korea, Japan	2+	6,000+	361+ million
9/17-9/26	Flooding	Cambodia	14+	14,300+	Unknown

9/21-9/28	Flooding	India, Bangladesh	56+	475,000+	34.2+ million
9/23	Winter Weather	Nepal	8+	Unknown	Unknown
9/29-9/30	STY Jelawat	Japan	2+	6,015+	27.4+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Total Damage (USD)
1/12	TC Heidi	Australia (Western Australia)	0	Unknown	Unknown
1/22-1/31	Flooding	Fiji	7+	Thousands+	17+ million
1/24	Landslide	Papua New Guinea	40+	Unknown	Unknown
1/24-2/15	Flooding	Australia (NSW, Queensland)	1+	6,408+	920+ million
2/24-3/16	Flooding	Australia (NSW, Victoria)	2+	8,914+	1.58+ billion
3/3	Severe Weather	New Zealand	0	1,250+	7.5+ million
3/17	CY Lua	Australia (WA)	0	Hundreds+	230+ million
3/20	Severe Weather	Australia (Queensland)	0	150+	21+ million
3/29-4/3	Flooding	Fiji	7+	15,000+	71.3+ million
6/3-6/6	Severe Weather	Australia (NSW, Victoria)	0	1,500+	Unknown
6/10-6/12	Severe Weather	Australia (Western Australia)	1+	450+	Millions+
6/19	Earthquake	Australia (Victoria)	0	880+	Unknown

Additional Report Details

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

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

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

Damage estimates are obtained from various public media sources, including news websites, publications from insurance companies, financial institution press releases and official government agencies. Total damage estimates indicate the overall economic losses. Any available insured loss estimates are included within this total and can be found in the corresponding event text.

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