

February 2013 Global Catastrophe Recap



Table of Contents

Executive Summary	3
United States	4
Remainder of North America (Canada, Mexico, Caribbean, Bermuda)	4
South America	5
Europe	5
Africa	6
Asia	6
Oceania (Australia, New Zealand and the South Pacific Islands)	7
Appendix	8
Contact Information	11

Executive Summary

- Multiple winter storms affect the United States; losses less than initially anticipated
- Drought conditions worsen across central and eastern China
- Meteor explodes above Russia's Urals region, injuring nearly 1,500 people and damaging 100,000 homes

At least four separate winter storms affected the United States during the month of February, which was highlighted by a powerful Nor'easter that left at least 15 people dead. The Nor'easter prompted states of emergency to be declared in six states as the storm's impact was felt by nearly 60 million people. Heavy snows accumulated to 40 inches (102 centimeters) in Connecticut, and coastal flooding was recorded in Massachusetts – including the city of Boston. However, damage from the storm was much less than expected, with insurers reporting only a modest level of claims filed. Total economic losses were estimated at roughly USD100 million.

Another winter storm also led to severe weather activity across the Southeast. A violent EF-4 tornado with 170 mph (275 kph) winds touched down in the greater Hattiesburg, Mississippi region, injuring at least 82 people. According to statistics from the Mississippi Emergency Management Agency, the twister damaged more than 1,600 homes, businesses and other structures in Forrest and Lamar counties alone.

Winter weather was recorded in China, particularly in the provinces of Anhui, Hubei and Jiangsu. A combined 2,700 homes were damaged or destroyed, primarily due to roofs collapsing under the weight of the snow and ice. Two people were killed, and direct economic losses were listed at CNY770 million (USD124 million).

Four separate tropical systems left notable impacts during February, including cyclones Felleng and Haruna in Madagascar. Felleng's torrential rains and high winds left at least 15 people dead across portions of Madagascar and the Seychelles despite never making an official landfall. Total economic losses were listed in excess of USD10 million. Haruna made landfall in southern Madagascar's Atsimo-Andrefana, killing at least 24 people and damaging 5,549 homes and 209 other schools, administrative buildings and health centers.

Cyclone Rusty made landfall in Western Australia near Pardoo, though damage was largely minimal despite rainfall in excess of 500 millimeters (19.69 inches) and winds gusting beyond 120 kph (75 mph).

Flooding was prevalent across portions of South America, Asia and Europe during the month. Peru and Bolivia were amongst the hardest-hit, where seasonal rains led to the combined deaths of at least 54 people and nearly 22,000 homes being damaged or destroyed.

Other flood events occurred in Macedonia, Serbia, Greece, Indonesia and the Philippines.

A prolonged drought continued to affect parts of central and eastern China after beginning at the start of the year. At least six provinces (Yunnan, Sichuan, Shaanxi, Qinghai, Shanxi, and Gansu) were affected as nearly 750,000 hectares (1.85 million acres) of cropland had been damaged by a lack of precipitation. The Ministry of Civil Affairs (MCA) noted that combined economic losses were CNY31 billion (USD5.0 billion).

A magnitude-8.0 earthquake struck off the Solomon Islands archipelago in the South Pacific Ocean, leading to the deaths of at least 13 people. A small tsunami up to 1.5 meters (4.92 feet) in height was recorded, which damaged at least 1,066 homes on the Santa Cruz Islands.

Additional earthquake events were recorded in Colombia and China.

A meteor exploded above Russia's Urals region, injuring 1,491 people. The blast, which had an energy equivalent roughly 30 times stronger than an atomic bomb, damaged 100,000 homes, 3,000 buildings, 700 schools and 200 hospitals in more than six Russian cities and parts of two Kazakhstan provinces. Economic losses were listed at RUB1 billion (USD33 million).

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/8-2/9	Winter Weather	Northeast, Mid-Atlantic	15	10,000+	100+ million
2/9-2/11	Winter Weather	Midwest, Plains, Southeast	1	7,500+	100+ million
2/21-2/22	Winter Weather	Plains, Midwest, Southeast	2	Thousands+	Millions+
2/24-2/27	Winter Weather	Plains, Midwest, Northeast	3	100,000+	1.0+ billion

A powerful winter storm brought significant snowfall, hurricane-force wind gusts and coastal flooding to the Northeast on the 8th and 9th, killing at least 15 people. The Nor'easter prompted states of emergency to be declared in six states as the storm's impact was felt by nearly 60 million people. The heaviest snow totals were recorded in Connecticut, where a peak snow accumulation of 40 inches (102 centimeters) occurred in the city of Hamden. In Boston, MA, 24.9 inches (63.2 centimeters) of snow fell in addition to a storm surge of 4.21 feet (1.28 meters). However, damage from the storm was much less than feared, with insurers reporting only a modest level of claims filed. Total economic losses were estimated at roughly USD100 million.

A broad reaching storm system brought blizzard conditions to the Plains and Midwest, and severe weather throughout the Southeast between the 9th and 11th. The heaviest snow totals were recorded across South Dakota, North Dakota, Nebraska and Minnesota, though damage was largely minimal. One fatality occurred. Along the southern branch of the cold front, the National Weather Service confirmed eight tornado touchdowns – including a violent EF-4 with 170 mph (275 kph) winds in Hattiesburg, MS. At least 82 people were injured as the twister damaged more than 1,600 homes, businesses and other structures in Forrest and Lamar counties. Total economic losses from the system were estimated in excess of USD100 million, most associated with the tornadic activity.

A large winter storm brought heavy snowfall, sleet and ice throughout the Plains, Midwest and the Southeast on the 21st and 22nd. At least two fatalities were reported. The states of Kansas, Missouri and Arkansas endured the brunt of the storm's impact, where up to 18 inches (46 centimeters) of snow fell. Some areas also recorded a 1.0-inch (2.5-centimeter) coating of ice on roadways, trees, vehicles, and structures which caused varying levels of damage.

A strong winter storm slowly tracked across the Plains, Midwest and the Northeast between the 24th and 27th, bringing heavy snowfall to each region. At least three fatalities were recorded. States of emergency were declared in Texas and Oklahoma as near-record snowfall of 19.0 inches (48.3 centimeters) occurred in Amarillo, TX. The heavy snowfall caused widespread damage and a high volume of automobile accidents in each affected region. Isolated severe weather also accompanied the southern branch of the front in the Southeast, with isolated tornadoes and large hail recorded. Total economic losses were estimated at USD1.0 billion, with insured losses in excess of USD650 million.

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/7-2/10	Winter Weather	Canada	3	Thousands+	4.0+ million

Winter weather associated with a strong U.S. area of low pressure brought heavy snows to eastern sections of Canada between the 7th and 10th. Three people were killed. Officials in Toronto estimated storm cleanup costs up to CAD4.0 million (USD4.0 million) as snow accumulations also led to travel delays in Ontario and Quebec. As much as 50 centimeters (20 inches) of snow fell across isolated locations in Nova Scotia, Newfoundland and Labrador, and New Brunswick. Coastal flood damage occurred in Nova Scotia and Halifax as water levels reached as high as 2.76 meters (9.06 feet).

South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-2/20	Flooding	Peru	31	12,000+	Unknown
1/28-2/15	Flooding	Bolivia	24	582+	2.5+ million
2/9	Earthquake	Colombia	0	4,050+	4.0+ million
2/21-2/22	Wildfire	Chile	0	100+	Unknown

Seasonal rains during the months of January and February led to flash flooding and landslides across much of Peru, killing at least 31 people and injuring 32 others. The rains, which were prevalent across multiple provinces, damaged or destroyed at least 11,766 homes and dozens of other structures. More than 14,230 kilometers (8,840 miles) of roads and 30 bridges were affected as well.

Heavy rains and thunderstorms swept across parts of Bolivia between the end of January and the first half of February, killing at least 24 people. The rains prompted flooding and landslides that damaged or destroyed at least 582 homes and swaths of cropland. The country's Civil Defense Ministry allocated USD2.5 million for recovery.

A magnitude-6.9 earthquake shook southwest Colombia on the 9th, injuring at least 15 people. The tremor struck at 9:16 AM local time (14:16 UTC) with an epicenter 5 kilometers (3 miles) east-northeast of Yacuanquer, Colombia. The National Risk Management Unit reported that the hardest-hit provinces were Narino, Cauca, Risaralda, and Quindio, where at least 4,000 homes were damaged or destroyed. Approximately 50 additional structures sustained varying levels of damage as well. The government allocated COP7.1 billion (USD4.0 million) for recovery efforts.

One of Chile's worst wildfires in decades struck the port city of Valparaíso on the 21st and 22nd, destroying 100 homes. At least 27 people were injured. The blaze, which burned approximately 75 acres (30 hectares) of land in the Rodelillo Hills, San Roque and Placeres areas of the city, left more than 1,200 people displaced from their homes.

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/15	Meteor Explosion	Russia	0	108,000+	33+ million
2/22	Flooding	Greece	1	1,000+	Millions+
2/24-2/26	Flooding	Macedonia, Serbia	1	2,000+	Millions+

An estimated 10,000-ton, 17.0-meter (55.0-foot) across meteor exploded about 15 to 25 kilometers (10 to 15 miles) above Russia's Urals region on the 15th, injuring 1,491 people. The blast, which had an energy equivalent roughly 30 times stronger than an atomic bomb, damaged 100,000 homes, 7,221 buildings, 700 schools and 200 hospitals in more than six Russian cities and parts of two Kazakhstan provinces. The meteor entered the Earth's atmosphere at a hypersonic speed of 74,000 kph (46,000 mph). Economic losses were listed at RUB1 billion (USD33 million).

Some of the heaviest rains since 1961 spawned widespread flooding throughout the greater Athens region in Greece on the 22nd, leaving one person dead. The excessive rains caused a river to burst its banks in a northern suburb of Athens and send muddy water through streets. Low lying areas of Athens' city center were inundated by floodwaters as well, and the capital city's tram system was forced to shut down. Local fire officials received more than 1,000 calls from stranded motorists and for requests to pump out water from flooded basements in homes and office buildings.

Heavy rainfall between the 24th and 26th prompted widespread flooding across parts of Macedonia and Serbia, killing at least one person. In Macedonia, overflowing rivers damaged more than 1,000 homes, bridges and dams. In Serbia, hundreds of homes were flooded along the swollen Kozjodolska River and its tributaries. The hardest-hit areas were Levosojje, Vranje and Brunusanskoj Mahala. A state of emergency was declared.

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/27-2/2	CY Felleng	Madagascar, Seychelles	18	9,965+	10+ million
2/13	Flooding	Mauritius	0	1,500+	30+ million
2/20-2/23	CY Haruna	Madagascar	26	16,449+	25+ million

Cyclone Felleng brought torrential rains and periods of gusty winds to portions of Madagascar and the Seychelles between January 27th and February 2nd, killing at least 18 people and injuring 81 others. Though the cyclone never made landfall, heavy rains and storm surge led to nearly 10,000 homes and structures being damaged or destroyed. Infrastructure was severely impacted as well. Total economic losses were in excess of USD10 million.

Twelve hours of torrential rainfall on the 13th led to severe flooding across southwestern sections of Mauritius. No serious injuries or fatalities were reported. Local rescue officials responded to at least 1,500 calls for help with damage requests as floods inundated homes, businesses, schools and other structures. Infrastructure was damaged as well. Total economic losses were listed at MUR936 million (USD30 million).

Cyclone Haruna made landfall in southern Madagascar's Atsimo-Andrefana on the 22nd, as the storm's high winds and heavy rains left at least 26 people dead and 127 others injured. More than 16,160 homes were damaged or destroyed in addition to another 289 schools, administrative buildings and health centers. Nearly 10,000 hectares (24,700 acres) of cropland was flooded as well. Total damages were estimated at USD25 million.

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-12/31	Drought	China	0	Unknown	10+ billion
2/15-2/22	Flooding	Indonesia	17	11,608+	Millions+
2/18-2/20	TD Two	Philippines	5	5,000+	1.68+ million
2/18-2/21	Winter Weather	China	2	2,700+	124+ million
2/19-2/20	Earthquakes	China	0	3,271+	67+ million
2/26-2/28	Flooding	Indonesia	3	3,000+	Unknown

A prolonged drought affected parts of central and eastern China throughout the calendar year, though it was particularly intense during the first and third quarters of 2013. At least 13 provincial regions (Yunnan, Zhejiang, Hubei, Jiangxi, Hunan, Anhui, Sichuan, Shaanxi, Qinghai, Shanxi, Henan, Guizhou, and Gansu) and Chongqing Municipality reported that nearly 12.0 million hectares (29.7 million acres) of cropland had been affected by a lack of precipitation. The Ministry of Civil Affairs (MCA) noted that combined economic losses were CNY60 billion (USD10 billion).

More than a week of heavy rainfall prompted flooding and landslides across Indonesia's North Sulawesi province between the 15th and 22nd, killing at least 17 people. The hardest-hit areas included the provincial capital of Manado and Sitaro district. All but one of the fatalities was blamed on landslides, and the majority of the damage was blamed on several rivers bursting their banks that damaged or destroyed at least 11,608 homes. Swaths of agriculture and infrastructure were affected as well.

Heavy rainfall in association with Tropical Depression Two prompted flooding on the Philippines' southern island of Mindanao, leaving five people dead and 10 others injured between the 18th and 20th. More than 51,000 families were displaced from their homes as floodwaters reached beyond 1.0 meter (3.3 feet) in height in multiple provinces. At least PHP69 million (USD1.68 million) was made available for disaster relief.

Heavy snowfall swept across eastern China between the 18th and 21st, causing travel delays and damaging homes. Two fatalities occurred, as the provinces of Anhui, Hubei and Jiangsu were the hardest-hit. A combined 2,700 homes were damaged or destroyed, primarily due to roofs collapsing under the weight of the snow and ice. The snow also damaged tens of thousands of hectares (acres) of cropland as well. Total direct economic losses from the MCA were listed at CNY770 million (USD124 million).

Three moderate earthquakes rattled parts of China on the 19th and 20th, though no serious injuries or fatalities were reported. The first tremor (magnitude-4.9) was recorded on the 19th with near the border of Sichuan and Yunnan provinces. The MCA noted that 971 homes were damaged or destroyed, seven people had minor injuries, and economic losses were CNY200 million (USD32 million). The second earthquake also struck on the 19th, a magnitude-4.8, which struck 17 kilometers (10 miles) west-northwest of Yunxi, China. The MCA indicated that more than 2,700 homes were damaged with economic losses at CNY18 million (USD2.9 million). The third tremor occurred on the 20th, with the magnitude-4.5 temblor occurring in Tiandong County in Guangxi Province. The MCA reported that more than 600 homes were damaged and economic losses would approach CNY200 million (USD32 million).

Heavy rainfall, partially enhanced by the outer periphery of Tropical Cyclone Rusty, led to widespread flooding in eight southern Indonesian districts between the 26th and 28th. At least three people were killed. The most severe flooding occurred in Belu, where 2,507 homes were inundated by floodwaters. In total, 2,772 homes were damaged or destroyed in addition to hundreds of other public facilities and infrastructure.

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/6	Earthquake	Solomon Islands	13	1,066+	Millions+
2/22-2/24	Severe Weather	Australia (NSW, QLD)	1	6,000+	16+ million
2/25-2/27	CY Rusty	Australia (WA)	0	Unknown	Unknown

A magnitude-8.0 earthquake struck off the Solomon Islands archipelago in the South Pacific Ocean on the 6th, leading to the deaths of at least 13 people. The tremor was registered at 12:12 PM local time (1:12 UTC) with an epicenter 81 kilometers (50 miles) west of Lata, Solomon Islands. A small tsunami up to 1.5 meters (4.92 feet) in height was recorded, which caused severe damage in 20 coastal communities on the Santa Cruz Islands. Officials noted that more than 1,066 homes and other structures were damaged and that 4,509 people had been displaced. A state of disaster was declared.

Periods of flooding rains and severe thunderstorms affected coastal sections of Australia's New South Wales (NSW) and Queensland (QLD) between the 22nd and 24th, leaving at least one person dead. In NSW, a natural disaster was declared for 11 local government areas due to river flooding and at least three tornado touchdowns. The most significant twister was an F1 that struck the Kiama region. More than 173 homes were damaged or destroyed, with damages estimated at AUD10 million (USD10.3 million). Byron Shire sustained more than AUD5 million (USD5.1 million) in flood damage to property and infrastructure. In total, the NSW State Emergency Service received nearly 5,500 requests for assistance. In QLD, at least 50 businesses were inundated in the town of Gympie after the Mary River overflowed its banks. The QLD State Emergency Service cited more than 300 requests for help from residents.

Tropical Cyclone Rusty made landfall in northwest Australia on the 27th, bringing heavy rainfall, gusty winds and a storm surge to the region. No fatalities or serious injuries were reported. The cyclone officially made landfall near Pardoo in Western Australia around 3:00 PM local time (7:00 UTC) with 150 kph (90 mph) sustained winds. Local officials in Port Hedland, South Hedland, Pardoo, Whim Creek, De Grey, Wallal, and Marble Bar all cited minimal damage. The most significant impacts were felt at Port Hedland, where more than AUD500 million (USD513 million) in iron ore shipments were temporarily suspended after the port closed due to Rusty's pending arrival.

APPENDIX

Updated 2013 Data: January

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/8-1/10	Severe Weather	Southeast	0	500+	10+ million
1/11-1/17	Winter Weather	California	0	Unknown	28+ million
1/29-1/30	Severe Weather	Southeast, Midwest, Plains	3	25,000+	350+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-1/20	Flooding	Brazil	4	10,000+	Millions+
1/24	Flooding	Ecuador	10	Dozens+	Unknown
1/30	Earthquake	Chile	1	Hundreds+	Unknown

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/17-1/22	Winter Weather	Western Europe	7	7,000+	715+ million
1/28	Flooding	Turkey	7	Unknown	Unknown

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/10-1/31	Flooding	Southern Africa	175	125,000+	65+ million

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-1/20	Winter Weather	India, Bangladesh, Nepal	329	Unknown	Unknown
1/3-1/9	Winter Weather	China	0	7,500+	204+ million
1/6-1/9	Winter Weather	Middle East	11	5,000+	345+ million
1/11	Flooding	China	46	63+	48+ million
1/15-1/23	Flooding	Philippines	10	5,000+	2.8+ million
1/17-1/18	Winter Weather	India	0	Thousands+	185+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/20-1/27	Flooding	Indonesia	41	100,274+	3.31+ billion
1/22	Earthquake	Indonesia	1	100+	Unknown
1/25-1/27	Flooding	Sri Lanka	1	2,164+	Unknown
1/27	Flooding	Indonesia	21	100+	Unknown
1/28	Earthquake	Kazakhstan, China	1	8,900+	29+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-1/17	Wildfires	Australia (TAS, NSW, VIC)	1	3,500+	175+ million
1/21-1/30	Flooding	Australia (QLD, NSW)	6	87,843+	2.5+ billion

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. 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.

Contact Information

Steve Jakubowski

President
Impact Forecasting
+1 312 381 5890
steven.jakubowski@aonbenfield.com

Adam Podlaha

Head of International
Impact Forecasting
+ 44 (0)20 7522 3820
adam.podlaha@aonbenfield.com

Adityam Krovvidi

Head of Asia Pacific
Impact Forecasting
+ 65 6239 7651
adityam.krovvidi@aonbenfield.com

Steve Bowen

Senior Scientist/Meteorologist
Impact Forecasting
+1 312.381.5883
steven.bowen@aonbenfield.com



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Impact Forecasting

200 E. Randolph Street

Chicago, Illinois 60601

t +1.312.381.5300

f +1.312.381.0160

impactforecasting.com

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