

February 2012 Global Catastrophe Recap



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Executive Summary

- Severe weather outbreak in the United States kills at least 13 people, causes widespread damage
- Extended cold snap leaves more than 800 dead in Eastern Europe
- Flooding in parts of Australia leads to at least USD120 million in insured losses

A powerful storm system spawned a severe weather outbreak across parts of the central and eastern United States at the end of February, killing at least 13 people and injuring more than 200 others. The Storm Prediction Center (SPC) confirmed at least 36 tornado touchdowns in addition to hundreds of reports of hail and damaging winds in more than 10 states. The most notable tornado came in Harrisburg, Illinois, where an EF-4 with 180 mph (285 kph) winds left substantial damage and six fatalities. Total economic and insured losses were estimated to reach into the hundreds of millions of dollars (USD).

Additional severe weather throughout the month around the globe was recorded in Indonesia and Nigeria.

An extended bout of bitter cold and snow engulfed Eastern Europe between the end of January and the first half of February, leading to the deaths of at least 824 people. Total economic losses in Serbia alone were estimated at EUR500 million (USD660 million), with even higher losses anticipated as impacts from a frozen (and closed) Danube River were realized.

Winter weather also led to damage and fatalities in parts of Asia. In China, separate blizzards in Tibet caused upwards of CNY157.5 million (USD25 million) in economic damages. Heavy snowfall led to avalanches in India, killing at least 16 people.

Flooding was prevalent during February, with parts of southwest Queensland and northern New South Wales in Australia sustaining the most noteworthy impacts. The Insurance Council of Australia declared a catastrophe, with at least 5,657 claims filed and payouts in excess of AUD111 million (USD120 million).

Elsewhere, floods caused widespread damage and reports of fatalities in Bolivia, Brazil, Peru, Bulgaria, Greece, the Philippines and Canada.

A magnitude-6.7 earthquake struck the central Philippines, leaving 116 people dead or missing and injuring 112 more. The tremor's epicenter was located 72 kilometers (44 miles) north of Dumaguente, Philippines at a depth of 11 kilometers (6.8 miles). The hardest-hit areas came in the central province of Negros Oriental on the island of Central Visayas. Extensive damage was reported to homes and infrastructure. Total economic losses were tentatively estimated to approach PHP42.2 billion (USD1 billion), with total insured losses roughly expected around PHP4.22 billion (USD100 million).

Cyclone Giovanna made landfall in central Madagascar, killing at least 35 people and injuring 81 others. Widespread damage was prevalent throughout the island with more than 50,000 homes and other structures damaged or destroyed. The cyclone also left heavy damage to infrastructure and agriculture across 686 separate districts. Total economic losses were estimated at approximately MGA220 billion (USD100 million).

United States

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
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	13+	Thousands+	100s of millions+

Strong thunderstorms crossed portions of the southern Plains and the Southeast (primarily along the Gulf Coast) on the 17th and 18th, spawning damaging winds, large hail and isolated tornado touchdowns. The inclement weather led to downed trees and power lines onto homes and vehicles.

A squall line along an advancing frontal boundary in the Plains led to widespread damage across parts of Kansas and Oklahoma on the 20th. In Ottawa County, Kansas, local law enforcement noted that two inches (50 millimeters) of hail accumulated on Highway 81 while pelting vehicles. In Pontotoc County, Oklahoma, at least one person was killed after a strong burst of wind overturned a mobile home. Sporadic hail damage was also prevalent throughout the Oklahoma City metropolitan region.

Severe thunderstorms led to a tornado touchdown in northern Georgia on the 22nd, killing at least one person. The EF-1 tornado damaged or destroyed at least 100 homes in Floyd County, with total damages listed at USD1.6 million. Additional storm damage was reported in Tennessee and North Carolina.

Widespread severe weather occurred on the 24th throughout the Southeast and the Mid-Atlantic States in association with a strong winter storm. At least four tornadoes touched down in South Carolina and Virginia (including an EF-2 with 130 mph (210 kph) winds in Aiken County, SC), damaging dozens of homes. A wide swath of damaging winds and hail from Mississippi to Delaware led to additional damage homes and vehicles. Total economic losses were estimated into the millions of dollars (USD).

A powerful winter storm spawned a severe weather outbreak across parts of the central and eastern U.S. on the 28th and 29th, killing at least 13 people and injuring more than 200 others. The Storm Prediction Center (SPC) confirmed at least 36 tornado touchdowns in addition to hundreds of reports of hail and damaging winds in more than 10 states. The most notable tornado came in Harrisburg, Illinois, where an EF-4 with 180 mph (285 kph) winds left substantial damage and six fatalities. Elsewhere, EF-2 tornadoes caused major impacts in parts of Missouri, Kansas and Tennessee. In addition to the severe weather, wintry weather also caused disruptions across the High Plains, Upper Midwest and the Northeast. Total economic and insured losses were estimated to reach into the hundreds of millions of dollars (USD).

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

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
2/11-2/12	Flooding	Canada	0	200+	Unknown

Heavy rains on the 11th and 12th led to reports of flooding across portions of Newfoundland and Labrador in Canada. More than 200 homes were damaged in the Goulds and Kilbride sections of St. John's after 70 millimeters (2.75 inches) of rain fell on top of a snowpack. The majority of the damage was confined to flooded basements.

South America

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
2/8-2/9	Flooding	Peru	14+	11,000+	Unknown
2/10-2/29	Flooding	Brazil, Bolivia	1+	37,300+	10+ million

Torrential rains on the 8th and 9th led to significant river flooding in parts of Peru's 22 provinces, killing at least 14 people and injuring 29 others. According to the National Civil Defense Institute, more than 10,000 families were left homeless and an additional 669 schools and medical centers were damaged or destroyed. Widespread damage was reported to crops as well, and the transportation infrastructure saw more than 800 kilometers (500 miles) of roads damaged and 17 bridges affected.

Heavy seasonal rainfall fell across parts of Brazil and Bolivia between the 10th and the 29th, prompting the Acre River (which partly acts as a border) to overflow its banks. One person was killed. At least 12,300 homes in Bolivia and 25,000 homes in Brazil were damaged or destroyed by the floods. In Bolivia, a state of emergency was declared as the capital (Cobija) of the northern province of Pando was underwater. In Brazil, Acre state was heavily impacted as the capital city of Rio Braco saw 45 neighborhoods submerged. Total combined economic impacts were estimated in excess of USD10 million.

Europe

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/24-2/17	Winter Weather	Eastern/Central Europe	824+	Unknown	660+ million
2/7-2/8	Winter Weather	Ukraine	0	Unknown	2+ million
2/7-2/9	Flooding	Bulgaria, Greece	12+	Hundreds+	4.4+ million

Bitter cold and snow engulfed eastern and central Europe between January 24th and mid-February, leading to the deaths of at least 824 people and the hospitalization of more than 7,000 others. Nearly all of the fatalities were blamed on hypothermia across two-dozen countries. Total economic losses in Serbia alone were estimated at EUR500 million (USD660 million), with even higher losses anticipated as impacts from a frozen (and closed) Danube River were realized.

A fierce storm system impacted the Yalta and Alusta regions of Ukraine on the 7th and 8th, causing widespread damage to building construction and beaches. Total economic losses were listed by the Ukrainian government at UAH16 million (USD2 million).

Heavy rainfall combining with melting snow led to many rivers overflowing their banks in parts of Bulgaria and Greece between the 7th and the 9th. At least 12 people were killed. In Bulgaria, the Ivanovo Dam burst which flooded the village of Bisser with up to 2.5 meters (8 feet) of water. The city of Svilengrad was also flooded after a dike collapsed near the village of Generalovo. In Greece, the hardest-hit areas came in the northeast after the Evros River burst its banks and submerged multiple villages. Total economic losses in Bulgaria were listed at BGN6.5 million (USD4.4 million).

Africa

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
2/13	Severe Weather	Nigeria	15+	3,000+	1+ million
2/14	CY Giovanna	Madagascar	35+	50,000+	100+ million

A powerful thunderstorm ripped through the Nigerian city of Lagos on the 13th, bringing extremely gusty winds and torrential rains. At least 15 people were killed as damage occurred across multiple sections of the city. More than 3,000 homes were damaged or destroyed over 100 separate blocks. Additional damage from the storm was recorded in Ikoyi and Victoria Island. Total economic damages were listed at NGN158 million (USD1 million).

Cyclone Giovanna made landfall in central Madagascar on the 14th, killing at least 35 people and injuring 81 others. According to the National Office of Disaster Management, widespread damage was prevalent throughout the island with 264,000 residents affected. More than 50,000 homes and other structures were damaged or destroyed in addition to impacts to infrastructure and agriculture across 686 separate districts. Total economic losses were estimated at approximately MGA220 billion (USD100 million).

Asia

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
2/6	Earthquake	Philippines	58+	53,000+	1+ billion
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

A strong magnitude-6.7 earthquake struck the central Philippines on the 6th, leaving at least 116 people dead or missing and injuring 112 more. The main tremor occurred at 11:49 AM local time (3:49 UTC) with an epicenter 72 kilometers (44 miles) north of Dumaguete, Philippines at a depth of 11 kilometers (6.8 miles). The hardest-hit areas came in the central province of Negros Oriental on Central Visayas, where Dumaguete City sustained the brunt of the damage. According to the National Disaster Risk Reduction and Management Council, more than 53,000 families were affected and extensive damage occurred to homes and infrastructure. Total economic losses were estimated to approach PHP42.2 billion (USD1 billion), with total insured losses around PHP4.22 billion (USD100 million).

Portions of southwest China in the greater Tibet autonomous region sustained heavy snow between the 7th and the 9th. At least 650 people were injured, 10,000 homes were damaged and total economic losses were estimated at CNY127 million (USD20.2 million) by the Ministry of Civil Affairs.

A blizzard affected China's Tibetan region on the 15th and 16th, with the locales of Nyalam and Burang in Xigaze prefecture sustaining the worst effects. No injuries or fatalities were recorded. According to the Ministry of Civil Affairs, nearly 1,000 homes were damaged or destroyed and total economic damages were estimated at CNY25 million (USD4 million).

In India, at least six people were killed in Indian-controlled Kashmir on the 18th after heavy rains triggered a landslide. The slide occurred on a main highway at Khooni Nalla near Ramsoo in Ramban district.

More than 25,000 residents were displaced in southern Philippine provinces of Sultan Kudarat, Agusan del Norte and Surigao del Norte after torrential rains spawned flash flooding on the 19th. At least 5,000 homes were damaged, though no injuries or fatalities occurred.

Two large avalanches struck India's Kashmir region on the 22nd, killing at least 16 soldiers. The incidents occurred in the mountainous area of Sonamarg.

A strong tornado tore through parts of Indonesia's South Sulawesi and North Sumatra provinces on the 25th, killing at least five people. The tornado left four people dead and 59 homes destroyed in Sidrap regency and one person dead and 39 homes destroyed in Pakpak Barat regency.

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

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/24-2/15	Flooding	Australia (NSW, Queensland)	1+	5,657+	919+ million

Persistent rounds of rainfall fell across portions of southern Queensland and northern New South Wales during the end of January through the middle of February, leading to widespread river flooding. At least one fatality was reported. Swollen rivers damaged homes in the communities of Moree (600), Roma (416), Mitchell (288), St. George (50) and Charleville. In terms of economic costs, total combined impacts in NSW and QLD were estimated by the state governments at AUD860 million (USD919 million). The Insurance Council of Australia officially declared an insurance catastrophe, and noted that 5,657 claims had been filed with payouts listed at AUD111 million (USD120 million).

APPENDIX

Updated Jan. 2012 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)
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

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)
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South America

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
12/24-1/6	Wildfires	Chile	7+	Hundreds+	200+ million
1/1-1/10	Flooding	Brazil	39+	25,000+	Millions+
1/30	Earthquake	Peru	0	858+	Unknown

Europe

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/3-1/4	WS Ulli	UK, Scandinavia	2+	5,000+	306+ million
1/4-1/5	WS Andrea	UK, Northern Europe	0	Thousands+	350+ million
1/24-2/17	Winter Weather	Eastern/Central Europe	823+	Unknown	660+ million

Africa

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/16-1/17	Flooding	Mozambique, South Africa	10+	5,000+	Unknown
1/20-1/26	CY Funso	Mozambique, Malawi	40+	10,000+	100+ million

Asia

Event Date	Event Name Or Type ¹	Event Location	# of Deaths ²	# of Structures/ Claims ^{2,3}	Damage Estimates ^{2,4} (USD)
1/1-1/31	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

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)
1/12	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+	5,657+	919+ 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 and official government agencies

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, financial institution press releases and official government agencies. These estimates can include insured or economic losses.

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About Impact Forecasting® LLC

Impact Forecasting® LLC is a catastrophe model development center of excellence within Aon Benfield whose seismologists, meteorologists, hydrologists, engineers, mathematicians, GIS experts, finance, risk management and insurance professionals analyze the financial implications of natural and man-made catastrophes around the world. Impact Forecasting's experts develop software tools and models that help clients understand underlying risks from hurricanes, tornadoes, earthquakes, floods, wildfires and terrorist attacks on property, casualty and crop insurers and reinsurers. Impact Forecasting is the only catastrophe model development firm integrated into a reinsurance intermediary. To find out more about Impact Forecasting® LLC, visit impactforecasting.com.

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