



# Global Catastrophe Recap

January 2017

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## Executive Summary

- Major severe weather and flood events in the US lead to billion-dollar cost for insurance industry
- Worst wildfire event in Chile's modern history leads to extensive damage
- Extensive rainfall causes significant flooding in southern Thailand; at least 96 people dead

Separate major severe weather outbreaks swept across the United States during January, killing a combined 27 people. The most prolific event occurred during the second half of the month after nearly 80 confirmed tornadoes touched down in the Southeast. Three of the twisters were rated EF3. Among the hardest-hit states were Georgia, Mississippi, Alabama, Louisiana, and Florida as thousands of homes, businesses and other structures were damaged or destroyed. States of emergency were declared in Mississippi and Georgia. Total combined economic losses from the two events (January 1-3 & 18-23) were near USD1.6 billion. The insured portion was slightly above USD1.0 billion.

The US National Weather Service preliminarily confirmed that at least 130 tornadoes touched down in the month of January. This is the highest number of January tornadoes since 1999 (212).

Additionally, consecutive winter storms brought extreme precipitation across the US West. The most significant damage was noted in California due to flash flooding, mudslides and debris flows. Total economic losses from the early January event were expected to approach USD700 million. Public and private insurance losses were listed around USD300 million.

The worst wildfires in Chile's modern history left at least 11 people dead. An estimated 2,500 structures and vehicles were damaged or destroyed by the fire, including reports that more than 1,000 alone were destroyed in the town of Santa Olga in the region of Maule. The fires consumed at least 452,000 hectares (1.1 million acres) of land nationwide. Preliminary damage and firefighting costs were listed at a combined CLP570 billion (USD890 million).

Exceptional rainfall in southern Thailand left at least 96 people dead throughout January. The rains were triggered by a "westerly wind burst" over the eastern Indian Ocean that led to floods in 16 provinces. As many as 585,000 homes and other structures were inundated. Much of the commercial loss was centered on the rubber industry, which Thai production is one of the biggest for the sector in the world. Total economic losses were estimated to reach or exceed THB30 billion (USD860 million).

Severe flooding was also registered in Malaysia. More than 25,000 people were evacuated in Terengganu and Kelantan states after widespread damage was noted. The government cited combined economic losses at MYR585 million (USD132 million).

Other major flood events occurred in Peru, Southern Africa, China, Philippines, and French Polynesia.

A stretch of bitterly cold Arctic air engulfed much of Europe during the first half of the month. At least 76 people were killed as a result of exposure or in weather-related accidents. Also, Windstorm Egon came ashore and caused an insured loss estimated as high as USD170 million in France and Germany.

Severe winter storm events were also recorded in the United States and Canada.

A series of moderate earthquakes rattled central Italy on January 18, spawning damage and avalanches that led to at least 30 casualties.

## United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/03	Severe Weather	Southeast, Plains	6	10,000+	250+ million
01/06-01/13	Winter Weather	Pacific Northwest, Southwest, Rockies	5	40,000+	700+ million
01/06-01/08	Winter Weather	Southeast, East Coast	5	Thousands	Millions
01/13-01/18	Winter Weather	Plains, Midwest	7	Thousands	Millions
01/17-01/19	Winter Weather	West, Rockies	4	Thousands	Millions
01/18-01/23	Severe Weather	Southeast, Plains, West, Northeast	21	25,000+	100s of Millions+
01/19-01/25	Winter Weather	West, Rockies, Plains, Midwest	5	Thousands	Millions

A series of powerful thunderstorms developed and impacted central and southern sections of the country from January 1-3, killing at least six people. The worst impacts were felt in Texas, Louisiana, Mississippi, Alabama, Georgia, and the Florida panhandle as powerful wind gusts, torrential rainfall, large hail, and tornadoes were cited. As many as 34 tornadoes were confirmed. Total economic losses were estimated at USD250 million; while public and private insurers noted losses approaching USD175 million.

An active stretch brought consecutive winter storms across the West from January 6-13. The storms—part of a series of atmospheric rivers—brought prolific rain and snow to California, Nevada, Idaho, Colorado, Utah and Oregon. No fatalities were reported. Widespread damage was noted due to flash flooding, mudslides and debris flows across the immediate coastline and in the Rockies. The most significant damage was noted in California. Total economic losses were expected to approach USD700 million. Public and private insurance losses were listed around USD300 million.

A major winter storm claimed five lives as it prompted widespread travel disruption throughout the Southeast and along the East Coast from January 6-8. Fatalities were reported in Oregon, Colorado, Kentucky, Georgia, and Virginia where hundreds of vehicle accidents and road closures were reported. Total economic and insured losses were in the millions (USD).

At least seven people were killed as a fierce winter storm caused extremely hazardous conditions in portions of the Plains and Midwest from January 13-18. Numerous multi-vehicle pile-ups were reported. Most of the noted structural damage was due to ice accumulation taking down trees and power lines. Total economic and insured losses were in the millions (USD).

At least four people were killed in Portland, Oregon as temperatures plummeted in the wake of a winter storm that gripped the West and Rockies from January 17-19. Travel and transportation networks were brought to a standstill as the ice storm gripped the region. Areas of localized flooding were also observed in Oregon and Washington. Total economic and insured losses were in the millions (USD).

A dangerous multi-day outbreak of severe weather and wintry coastal impacts brought considerable damage and fatalities across the US Southeast and East Coast from January 18-23. At least 21 people were killed and more than 150 others were injured. Among the hardest-hit states were Georgia, Mississippi, Alabama, Louisiana, and Florida. States of emergency were declared in Mississippi and Georgia. The rare January outbreak spawned at least 79 confirmed tornadoes, including three rated EF3. Total economic losses were estimated at USD1.3 billion; while public and private insurers noted losses nearing USD875 million.

A series of strong winter storms lashed California and other western and central US states from January 19-25, killing at least five people. The storm also impacted areas from the Rockies to the Upper Midwest, but it was California that bore the brunt of the damage. Record-breaking rainfall in the Golden State prompted the governor to declare a state of emergency for 50 counties suffering from flooding, mudslides and erosion. Total economic and insured losses were in the millions (USD).

## Remainder of North America (Non-US)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/24-01/27	Winter Weather	Canada	2	Hundreds	10s of Millions

A dangerous ice storm impacted portions of Atlantic Canada from January 24-27, leading to the deaths of two people. Dozens of others were hospitalized. The storm system led to significant accumulations of freezing rain ice and snow to portions of Quebec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. At the peak of the event, as many as 133,000 New Brunswick Power customers were without electricity after the storm wreaked havoc on the electrical grid. Total economic damage was expected well into the tens of millions (USD).

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-02/01	Wildfire	Chile	11	2,500+	870+ million
01/14-02/01	Flooding	Peru	15	20,000+	Millions

Authorities in Chile declared a state of emergency as the worst wildfires in decades blazed out of control throughout the month of January. At least 11 people were killed, several which were members of emergency services. An estimated 2,500 structures and vehicles were destroyed by the fire, including more than 1,000 alone in the town of Santa Olga in the region of Maule. The fires, at one point tallied more than 150, consumed at least 580,000 hectares (1.4 million acres). Preliminary damage estimates to the agricultural and timber sectors alone were listed at CLP337 billion (USD520 million); while Chile's Finance Minister reported that the fires had cost the government CLP233 billion (USD350 million).

Weeks of heavy rainfall led to major flooding and landslides across Peru. The impacts resulted in tens of thousands of people being affected across several departments throughout January and early February. At least 15 people died and more than 20,000 homes were damaged. A state of emergency was declared in the departments of Arequipa, Hauncavelica, Ica, and Lima.

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/02-01/13	Winter Weather	Central, Eastern, Southeastern Europe	76	Thousands	10s of millions
01/12-01/13	WS Dieter & Egon	France, Germany	0	Thousands	350+ million
01/18	Earthquake	Italy	30	Hundreds	TBD
01/20-01/24	Severe Weather	Spain, France, Italy	3	Hundreds	Millions

An incursion of bitterly cold Arctic air impacted central, eastern, and southeastern portions of Europe during the first two weeks of the year. At least 76 people were killed as a result of exposure or in weather-related road accidents. The cold wave brought the lowest temperatures in years to numerous countries, as well as significant amounts of snowfall to unexpected locations. Several major power outages were noted while numerous people were left without water as supply pipes froze. Additional damage due to storm surge was noted in northern Germany.

Windstorm Egon swept through portions of Western Europe on January 12-13. Egon developed rather unexpectedly as a secondary low on a cold front of Windstorm Dieter, southwest of Ireland on January 12. Severe gusts and heavy snowfall caused considerable damage and disruption in northern France and central Germany. Some of the greatest damage was incurred to the forestry sector. Perils AG listed the preliminary insured at EUR212 million (USD225 million million) in France and Germany. Overall economic losses were even higher.

A series of magnitude-4.5+ earthquakes rattled central Italy on January 18 prompting further damage and disruption in the areas struck by a series of major earthquakes from August-October last year. At least one person was killed by a collapsed building. The effects of the tremors were compounded by the fact that central Italy was experiencing heavy snowfall that hindered relief and rescue efforts. The tremors were believed to have triggered an avalanche near Farindola that destroyed a hotel and killed 29 people.

An outbreak of severe weather impacted portions of Spain, France, and Italy from January 20-24. The inclement conditions were caused by a "cut-off" low pressure area that prompted severe thunderstorm activity that affected the western half of the Mediterranean region. Severe wind gusts, torrential rainfall, and unusually heavy snowfall prompted widespread damage and disruption. At least three people were killed as a result. Localized flooding was reported in parts of Sicily, Sardinia, and Calabria.

## Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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There were no significant natural disaster events in the Middle East during the month of January.

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/05-01/12	Flooding	South Africa, Angola	7	5,000+	Millions
01/01-01/31	Flooding	Mozambique, Zimbabwe	179+	33,000+	Unknown

Heavy rainfall across central and southern Africa led to flooding and casualties in parts of South Africa and Angola. At least seven people were killed after heavy rains from January 5-12 damaged upwards of 5,000 homes. The hardest-hit areas included Angola's Luanda province and South Africa's Limpopo, Mpumalanga, and Gauteng provinces. Most of the damage resulted from overflowing rivers and flash flooding. Total economic losses were in the millions of dollars (USD).

Heavy rains continued into the first several weeks of January in Mozambique and Zimbabwe. Mozambican authorities stated that the total death toll of the 2016/17 rainy season stood at 47. This includes fatalities caused by flooding and severe weather since October 2016. More than 33,000 homes were listed as damaged or destroyed, most notably in Sofala province. Major flooding was also cited in central Zimbabwe, where federal officials reported at least 132 deaths since December.

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-01/31	Flooding	Thailand	96	585,000+	860+ million
01/01-01/23	Flooding	Malaysia	0	Thousands	132+ million
01/12-01/16	Flooding	Philippines	11	Hundreds	Unknown
01/16-01/31	Flooding	Philippines	11	1,000+	8.1+ million
01/20	Landslide	China	12	One	Unknown
01/22-01/24	Flooding	Pakistan	5	Hundreds	Unknown
01/24-01/25	Winter Weather	Afghanistan	31	N/A	Unknown
01/25-01/26	Winter Weather	India	11	N/A	Unknown
01/25-01/30	Flooding	Indonesia	1	2,000+	Millions
01/28	Earthquake	China	0	14,000+	55+ million

A total of 96 people were killed in southern and central-southern Thailand as a wave of severe flooding swept the region throughout the month of January. Torrential rainfall triggered by a "westerly wind burst" over the eastern Indian Ocean prompted devastating floods in 16 provinces. More than 1.6 million people were affected as 582,725 homes, 4,314 roads, 2,336 schools, 348 bridges, and 70 government offices were inundated. Additionally more than 160,000 hectares (395,500 acres) of crops were submerged. Much of the commercial loss was centered on the rubber industry, which Thai production is one of the biggest for the sector in the world. Total economic losses were estimated to reach or exceed THB30 billion (USD860 million). Insured losses were significantly less.

Malaysia was impacted by monsoonal flooding throughout January. More than 25,000 people were evacuated in Terengganu and Kelantan states as widespread damage was noted to homes, businesses, schools and the transportation infrastructure. The government cited combined economic losses at MYR585 million (USD132 million).

At least 11 people were killed in the Philippines as heavy rainfall prompted widespread flooding in Northern Mindanao region from January 12-16. Among the hardest hit areas was Cagayan de Oro. The Philippines National Disaster Risk Reduction and Management Council reported that more than 65,600 people were affected but damage was limited to just 48 homes, 34 of which were destroyed.

The Northeast monsoon brought a prolonged spell of heavy rainfall to portions of the Philippines from January 16-31. At least 11 people were left dead or missing, and ten others were injured, as flooding ensued in parts of Western Visayas, Central Visayas, Eastern Visayas, Zamboanga Peninsula, Northern Mindanao, Davao, Caragan, and the Autonomous Region of Muslim Mindanao. More than 679,400 people were affected and hundreds of homes were damaged or destroyed. Power outages were widely reported in addition to damage to roads, bridges, and agricultural land. Economic losses were listed at more than PHP402 million (USD8.1 million).

Twelve people were killed as a landslide struck a hotel in China's Hubei province on January 20. The debris flow struck the Mirage Hotel in Nanzhang County forcing some 3,000 cubic meters (105,945 cubic feet) of debris into the hotel. This caused the three-story structure to collapse.

At least five people were killed and six others were injured as heavy rainfall triggered flooding and landslides in portions of Pakistan's Balochistan province from January 22-24. Significant damage to crops, orchards, and livestock was reported in seven districts and power outages were reported in Turbat, Gwadar, and Panjgur. Numerous homes were also thought to have been damaged.

At least 31 people were killed in the northern Afghan provinces of Jowzjan, Bamiyan, and Baghlan due to heavy snowfall, avalanches, and freezing temperatures from January 24-25.

At least 11 people were killed and four others were missing as a series of avalanches struck Sonamarg and Gurez Valleys in India's Jammu and Kashmir state. The avalanches were triggered on January 25 and 26 following heavy snowfall in the region.

Northern portions of Indonesia's Sulawesi (Celebes) Island were struck by torrential downpours from January 25-30. Hardest hit were the provinces of North Sulawesi, Gorontalo, and northern parts of Central Sulawesi. At least one person was killed as flooding and landslides engulfed thousands of homes.

A magnitude-5.3 earthquake struck China's Sichuan province in the early hours of January 28. At least five people were injured and 40 homes collapsed. Approximately 14,000 homes sustained varying levels of damage. The Ministry of Civil Affairs listed economic losses at CNY380 million (USD55 million).

## Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/20-01/23	Flooding	French Polynesia	0	1,000+	Millions

A state of natural disaster was declared for the French Polynesian islands of Tahiti and Moorea following severe flooding from January 20-23. No fatalities occurred, though four people were injured. Nearly 1,000 homes were inundated by floodwaters, including at least 100 which were labeled as destroyed. The government allocated XPF24 million (USD216,000) in emergency aid funds and XPF115 million (USD1.0 million) to private households and for structural and safety equipment. Final economic costs were expected to be even higher.

### 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 public and private insurance entities 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. Specific events may include modeled loss estimates determined from utilizing Impact Forecasting's suite of catastrophe model products.

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