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Executive Summary

- Windstorms Mike and Niklas minimally cause USD1.0 billion in damage across Central Europe
- Vanuatu named Cyclone Pam the most catastrophic natural disaster in the nation's history
- After slow start, severe weather activity increases in the United States

Windstorms Mike and Niklas raced through western and central Europe at the end of March, killing at least nine people and leaving considerable widespread damage. Hurricane-force winds, including a peak gust of 192 kph (120 mph), were noted in parts of Germany, the UK, Netherlands, Switzerland, Austria, and Poland. The most severe damage was reported in Germany. Based on preliminary damage reports from each country and local insurers, it is expected that total economic and insured losses are each likely to exceed USD1.0 billion.

Cyclone Pam became the strongest cyclone to make landfall since 2013's Typhoon Haiyan when it struck Vanuatu killing at least 11 people and injuring several others. The cyclone caused catastrophic damage throughout the archipelago nation of Vanuatu as up to 90 percent of homes and structures on some islands were damaged or destroyed. Many other South Pacific nations also endured damage. Vanuatu received an insurance payout of USD1.9 million from the Pacific Catastrophe Risk Insurance Pilot.

Elsewhere, Cyclones Nathan and Olwyn made multiple landfalls in Australia and caused damage to the agricultural sector. Super Typhoon Maysak tracked across Micronesia and killed at least nine people.

After one of the quietest starts to the United States severe weather season in recent memory, convective activity increased by the end of March. Two separate multi-day events caused widespread hail, straight-line wind, and tornado damage across parts of the Plains, Midwest and Southeast. Combined total economic and insured losses were anticipated to reach into the hundreds of millions (USD).

In China, hail left considerable damage in northwestern and southern sections of the country. Agricultural lands and construction facilities were amongst the hardest hit as economic losses were listed at CNY1.7 billion (USD275 million).

Severe weather also impacted parts of Colombia, Ecuador, Peru, and Iran.

Winter weather again impacted the United States, as parts of the Southwest, Rockies, Plains, South, Midwest, Mid-Atlantic, and Northeast were all impacted as the storms claimed 13 lives and caused widespread damage. Total economic losses were estimated at USD175 million; while insurers noted losses in excess of USD110 million.

Heavy snow, wind, and ice damage and fatalities also impacted Italy, the Balkans, Afghanistan, and Pakistan in March.

A historic flash flood event swept across northern Chile's Atacama and Antofagasta regions that left at least 25 people dead. As many as 14,000 homes were damaged or destroyed.

Heavy flooding also occurred in Madagascar, Tanzania, Burundi, Angola, Congo, India, and Indonesia.

Multiple moderate earthquakes struck China during the month, killing two people and damaging a combined 33,000 homes. Total economic losses were listed at roughly USD40 million.

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
3/1-3/6	Winter Weather	Central & Eastern U.S.	13	10,000+	175+ million
3/25-3/26	Severe Weather	Plains, Midwest, Southeast	1	35,000+	450+ million
3/31-4/1	Severe Weather	Plains, Midwest, Southeast	0	20,000+	175+ million

Large portions of the central and eastern United States were subject to two periods of winter weather during the first week of March. The first, relatively short-lived event impacted the Midwest, Mid-Atlantic, and Northeast; while a broader and stronger second event impacted the Southwest, Rockies, Plains, South, Midwest, Mid-Atlantic, and Northeast. The storms claimed at least 13 lives as they brought significant snow, sleet, freezing rain, and heavy rain to numerous states. Damage to homes, businesses and vehicles was widespread in many states in addition to business interruption. Total economic losses were estimated at USD175 million; while insurers noted losses in excess of USD110 million.

The first major severe weather outbreak of the year struck central portions of the U.S. from March 25 through 26. At least one person was killed and dozens more were injured as multiple tornadoes touched down in Arkansas and Oklahoma. Significant damage from straight-line winds and large hail was also noted in parts of Kansas and Missouri. Moore and Sand Springs, Oklahoma, both endured direct hits from tornadoes that severely damaged 1,100 residential properties and numerous vehicles. Total economic losses were estimated at USD450 million; while insurers noted losses in excess of USD300 million.

An active weather pattern brought multiple days of severe weather across the Plains, Southeast and Midwest from March 31 to April 1. Large hail, damaging straight-line winds, and isolated tornadoes were all reported as damage was most concentrated in parts of Oklahoma, Texas, Missouri, Arkansas, Mississippi, Alabama, and Georgia. Up to baseball-sized hail pelted residential and commercial properties in addition to vehicles; while winds gusting beyond 70 mph (110 kph) downed trees. Total economic losses were estimated at USD175 million; while insurers noted losses in excess of USD125 million.

Remainder of North America (Non-U.S.)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
3/26-3/28	Severe Weather	Mexico	14	1,000+	Millions

Periods of severe weather impacted the Mexican states of Veracruz and Oaxaca from March 26-28, killing at least 14 people. Strong thunderstorms brought heavy rain, gusty winds, and hail as rivers overflowed their banks and triggered landslides. The majority of the fatalities were due to floods. In Veracruz, officials noted that 414 homes sustained damage and telecommunications were cut off to nine communities. In addition, two bridges were destroyed in Yanga and Platón Sánchez municipalities.

South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
3/1-3/6	Flooding	Argentina, Bolivia, Brazil, Ecuador, Peru	47	30,000+	Millions+
3/20-4/5	Severe Weather	Colombia, Ecuador, Peru	23	802+	Unknown
3/25-4/8	Flooding	Chile	25	14,000+	1.5+ billion

Parts of Argentina, Bolivia, Brazil, Ecuador, and Peru were flooded during the first week of March as several major rivers burst their banks. A combined 47 fatalities were reported. In Bolivia and Brazil, the Acre River overflowed and flooded roughly 25,000 homes. Ecuador and Peru were also impacted, with 200 and 2,030 homes damaged, respectively, by floodwaters. More than 5,400 residents were evacuated in Argentina while, throughout the affected countries, severe damage has been noted to infrastructure and the agricultural sector.

Severe thunderstorms brought gusty winds, torrential rain, and significant accumulations of hail to parts of Colombia, Ecuador, and Peru from March 20 through 25. The heavy rain triggered flash floods and landslides, particularly in Ecuador and Peru. At least 23 people died and dozens more were injured as hundreds of thousands of residents were impacted by the storms. More than 800 homes sustained damage or were destroyed throughout the affected countries.

Torrential rainfall fell across Chile's northern regions of Atacama and Antofagasta on from the end of March into early April, triggering flash floods and landslides. At least 25 people were killed and 125 others were listed as missing. Local authorities estimate that 14,000 homes sustained damage. The rains prompted state of emergency declarations as years' worth of rain fell in some locations. The Chilean government cited economic losses at CLP965 billion (USD1.5 billion).

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
3/4-3/7	Winter Weather	Italy, Balkans	7	Thousands	Millions+
3/29-4/1	WS Mike & Niklas	Western & Central Europe	9	10,000+	1.0+ billion

Portions of Italy and the Balkans were impacted by a powerful winter storm from March 4-7. Seven fatalities were reported as the storm – known locally as “Anton” – brought hurricane-force winds, heavy rain, and significant snow accumulations to Italy, Bosnia, Bulgaria, Croatia, Montenegro, Romania, and Serbia. Transportation was severely disrupted and power outages were widely noted.

Windstorms Mike and Niklas quickly raced through western and central Europe during a 72-hour stretch from March 29-April 1, killing at least nine people and leaving considerable widespread damage. Hurricane-force winds, including a peak gust of 192 kph (120 mph), were noted in parts of Germany, the UK, Netherlands, Switzerland, Austria, and Poland. The most severe damage was reported in Germany, where trees were downed, vehicles were toppled, and some structures were impacted by localized flooding. Based on damage reports from each country and local insurers, it is expected that total economic and insured losses are each likely to exceed USD1.0 billion.

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/27-3/1	Flooding	Madagascar	24	642	Unknown
3/4	Flooding	Tanzania	47	634	Unknown
3/9-3/12	Flooding	Angola	69	2,500+	Unknown
3/28-3/29	Flooding	Burundi, Angola, Congo	24	500+	Unknown

Flooding affected the Malagasy capital, Antananarivo, in late February into early March. At least 24 people were killed, 155 homes were destroyed, and a further 487 homes sustained damage in the floods and landslides that resulted from torrential rains. At the peak of the floods, almost 22,000 residents were evacuated.

Tanzania suffered floods at the beginning of the month that killed at least 47 people and caused injury to 112 others. The floods followed torrential rainfall in Shinyanga District particularly affecting Mwakata, Magung'unhwa, and Nhumbi villages. At least 634 homes were destroyed or damaged causing the displacement of 3,500 residents.

Torrential rainfall in Luanda, Angola, led to widespread floods that inundated approximately 2,500 homes and other structures on March 9. Worst affected were the municipalities of Belas, Cacuaco, and Viana. On March 12 flooding, that resulted from severe thunderstorms in Lobito City, claimed 69 lives. Significant property damage was noted as floodwaters reached depths of 3 meters (10 feet).

Consecutive days of heavy rainfall impacted parts of Burundi, Angola, and Congo on March 28-29, killing a combined 24 people. The rains led to widespread flooding and landslides across a number of villages that swept away homes and agriculture. More than 500 homes were damaged or destroyed.

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/24-3/3	Flooding	Pakistan	32	Unknown	Unknown
3/1	Earthquake	China	0	16,300+	19+ million
3/7-3/8	Winter Weather	Afghanistan, Pakistan	26	150+	Unknown
3/11-3/15	Severe Weather	India, Iran	20	1,140+	Unknown
3/14	Earthquake	China	2	11,234+	Millions+
3/16	Flooding	Indonesia	0	1,600+	Unknown
3/23-3/27	Flooding	Saudi Arabia	11	1,000+	Millions+
3/24-3/25	Severe Weather	China	0	1,000+	275+ million
3/25-4/5	STY Maysak	Micronesia, Philippines	9	2,000+	Millions+
3/28	Flooding	Indonesia	12	Unknown	Unknown
3/29-3/31	Winter Weather	China	0	1,000+	108+ million
3/29-3/31	Flooding	India	17	Thousands	38+ million
3/30	Earthquake	China	0	6,260+	20+ million
3/30-4/4	Severe Weather	China	1	7,700+	65+ million

Widespread floods in Pakistan from the end of February through the start of March claimed 32 lives in northwestern provinces. The Federally Administered Tribal Territories, Khyber Pakhtunkhwa, and Punjab were worst affected. Severe damage was noted to numerous properties and to infrastructure.

A moderate magnitude-5.2 earthquake struck China's Yunnan province on March 1 at 06:25 PM local time (10:25 UTC). No fatalities were reported but 50 people sustained injuries and serious damage was noted to 16,000 homes. 300 homes collapsed. Economic losses reached CNY120 million (USD19.1 million).

Portions of South Asia were impacted by a period of winter weather through March 7 and 8. Afghanistan and Pakistan were worst affected as at least 26 individuals died as a result of weather-related incidents including avalanches. Local authorities in Afghanistan reported that 150 homes were destroyed.

Severe weather claimed 17 lives in India on March 15. Worst affected was the state of Rajasthan where 12 individuals died due to lightning strikes and landslides triggered by torrential rain. Severe crop damage was noted throughout the affected states of Jammu and Kashmir, Uttarakhand, and Rajasthan. In Iran, severe thunderstorms killed three individuals and were responsible for the destruction of 900 homes. A further 240 homes sustained damage. Worst affected were the southeastern provinces of Hormozgan, Kerman, and Sistan-Baluchestan.

A light magnitude-4.7 earthquake struck China's Anhui Province at 02:14 PM local time (06:14 UTC) on March 14. The quake struck 13 kilometers (8 miles) east of Taihe Chengguanzhen at a depth of 10 kilometers (6 miles) according to the United States Geological Survey. China's Ministry of Civil Affairs (MCA) reported that two individuals died and a further 13 sustained injuries as a result of the temblor. The MCA also reported that 155 homes had collapsed and a further 11,079 sustained damage.

Parts of Indonesia's Indramayu district in West Java province suffered widespread flooding on March 16 due to a dam failure on the Cimanuk River. According to local reports, 15,000 residents were forced to evacuate as at least 1,600 homes were damaged and 100 hectares (250 acres) of rice fields were inundated. There were no reports of any casualties.

Flooding rains left at least 11 people dead in Saudi Arabia from March 23-27. The rains were heaviest in the regions of Mecca, Asir, Najran, and Riyadh, where hundreds of homes and vehicles sustained water inundation.

An active weather pattern brought severe weather to portions of northwestern and southern China on March 24 and 25. High winds and hail caused severe damage to agricultural interests and construction facilities. Up to 1,000 homes and structures sustained damage. Economic losses were listed by China's Ministry of Civil Affairs (MCA) at CNY1.7 billion (USD275 million).

Super Typhoon Maysak impacted countries during its track in the Western Pacific Ocean from March 24 to April 5. At least nine people were killed. The storm caused major damage in multiple islands in the Federated States of Micronesia. Chuuk was particularly impacted, where as many as 90 percent of structures and vast areas of cropland were damaged. Elsewhere, a much weakened Maysak later made landfall in the Philippines though damage was less than initially feared.

A large landslide, triggered by heavy rainfall, killed at least 12 people in Indonesia's West Java region on March 28. The event occurred near Tegal Panjang village and destroyed 11 homes.

A stretch of heavy snow and sub-freezing temperatures impacted China's Tibet and Xinjiang regions from March 29-31. Up to 6,100 livestock were killed and more than 1,000 homes were damaged. Total economic losses were listed at CNY657 million (USD108 million).

Torrential rains impacted India's Jammu & Kashmir region from March 29-31, leading to flash flooding and landslides that left at least 17 people dead. The record-breaking rainfall totals prompted severe damage in many districts in the Kashmir Valley after the Jhelum River burst its banks and inundated communities. The state government allocated INR2.35 billion (USD38 million) for recovery efforts.

A magnitude-5.4 earthquake struck China's Guizhou province on March 30 at 09:48 AM local time (01:48 UTC). Data from the MCA indicated that four people were injured and that damage was sustained to 6,200 homes in Guizhou and 60 homes in Chongqing. Economic damages were listed at CNY120 million (USD20 million).

Days of severe thunderstorms impacted parts of China from March 30 to April 4, prompting widespread flooding in several eastern provinces. At least two people were killed. Data from the MCA noted that the provincial regions of Guizhou, Henan, Shanxi, Jiangxi, Chongqing, Sichuan, and Shaanxi were hardest-hit, where a combined 15,000 homes were damaged. Thousands of hectares (acres) of cropland were submerged as well. Economic losses were listed at CNY1.5 billion (USD245 million).

Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
3/11-3/15	CY Pam	Vanuatu, South Pacific Islands	16	30,000+	250+ million
3/13-3/15	CY Olwyn	Australia (WA)	0	500+	76+ million
3/20-3/24	CY Nathan	Australia (QLD, NT)	0	Hundreds	Millions

Cyclone Pam struck Vanuatu on March 13 with maximum 1-minute sustained winds of 270 kph (165 mph) and gusts to 325 kph (200 mph). At least 16 people died in the tiny South Pacific Island nation and several others were injured. Damage throughout the archipelago was described as “severe and widespread”. A minimum of 30,000 homes sustained severe damage while trees, crops, power lines, infrastructure, vehicles, and livestock also endured substantial losses. Other islands in the South Pacific (such as Fiji, Kiribati, New Zealand, the Solomon Islands, and Tuvalu) also endured damage and disruption. Flooding; damage to coastal infrastructure and crops; and disruption to telecommunications and power supplies were widely reported throughout the affected nations. Total economic losses were listed at up to USD250 million.

Cyclone Olwyn made landfall in Western Australia on March 13 before tracking along the coastline and later dissipating. The storm brought torrential rainfall and winds gusting to near 160 kph (100 mph) to multiple communities, with the town of Carnarvon sustaining the worst damage. Hundreds of homes were damaged or destroyed, and the banana crop was heavily impacted. Total economic losses were minimally listed at AUD100 million (USD76 million).

Cyclone Nathan made multiple landfalls in Queensland and Northern Territory, Australia, from March 20 through 24 before it finally dissipated on March 25. In Queensland, damages were sustained to the agricultural sector as strong winds flattened cane and fruit crops. Hundreds of power outages were reported as the storm passed over the Cape York Peninsula. Damage to properties due to high winds and flash floods that ensued from torrential rainfall was noted in numerous communities in Northern Territory. Downed trees and power lines and damage to coastal structures were also widely reported. No casualties were reported as a result of the storm.

Appendix

Updated 2015 Data: January-February

United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/6-1/11	Winter Weather	Midwest, Northeast, Mid-Atlantic	15	Hundreds+	100+ million
1/26-1/28	Winter Weather	Northeast, Mid-Atlantic	2	5,000+	500+ million
1/31-2/4	Winter Weather	Midwest, Northeast, Southwest	22	10,000+	150+ million
2/6-2/8	Flooding	Northwest, Southwest	1	Hundreds	Millions+
2/7-2/11	Winter Weather	Northeast	2	25,000+	400+ million
2/13-2/15	Winter Weather	Midwest, Northeast, Mid-Atlantic	30	35,000+	500+ million
2/16-2/17	Winter Weather	Southeast	10	10,000+	100+ million
2/16-2/22	Winter Weather	Plains, Ohio Valley, Mid-Atlantic	8	150,000+	1.9+ billion
2/25-2/26	Winter Weather	Southeast, Mid-Atlantic	2	Thousands	Millions+

Remainder of North America (Non-U.S.)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/20-2/21	Flooding	Dominican Republic	2	4,190+	Unknown

South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
12/1-1/31	Drought	Brazil	0	Unknown	Unknown
1/15-1/31	Flooding	Bolivia, Peru	16	10,780+	Unknown
2/15	Flooding	Argentina	8	1,500	17.2 million

Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/9-1/16	EU Windstorms	Northern/Central/Western Europe	2	Thousands	650+ million
1/29-2/1	Winter Weather	Western/Northern Europe	12	Hundreds	Millions+
1/30-2/2	Flooding	Balkans, Turkey	13	2,170+	13+ million
2/3-2/8	Winter Weather	Spain, France, Italy, Slovenia, Croatia	7	Thousands	Millions+

Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
12/1-1/31	Flooding	Malawi, Mozambique, Zimbabwe	307	31,000+	450+ million
1/2-1/4	Severe Weather	Malawi, Zimbabwe	15	Hundreds	Unknown
1/16-1/18	TS Chedza	Madagascar	89	5,000+	36 million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
2/7-2/8	TS Fundi	Madagascar	6	8,091	10+ million
2/13-2/14	Flooding	Angola	5	2,862+	Unknown

Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/1-1/23	Flooding	Indonesia	8	13,050+	6+ million
1/6-1/10	Winter Weather	Egypt, Israel, Jordan, Lebanon, Syria	9	Unknown	100+ million
1/9-1/12	Winter Weather	China	1	5,300+	226+ million
1/10-1/14	Earthquakes	China	0	17,500+	16+ million
1/14-1/20	Flooding	Malaysia	1	Thousands	Unknown
1/17-1/18	TY Mekkhala	Philippines	2	538+	1.0+ million
1/19	Severe Weather	Oman	0	5,000+	221+ million
1/23-1/25	Flooding	Indonesia	1	2,750+	Unknown
1/28-1/31	Winter Weather	China	0	1,000+	28+ million
1/31	Severe Weather	China	0	Unknown	80+ million
1/31-2/2	Flooding	Indonesia	2	5,050+	Unknown
2/8-2/13	Flooding	Indonesia	6	Thousands	235+ million
2/15-2/28	Winter Weather	Afghanistan, India	230	6,013	Unknown
2/22	Earthquake	China	0	3,000+	15+ million

Oceania (Australia, New Zealand, South Pacific Islands)

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
1/2-1/8	Wildfires	Australia	0	936+	50+ million
2/20	Cyclone Lam	Australia	0	Hundreds	78+ million
2/20	Cyclone Marcia	Australia	0	29,565+	590+ million

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.

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