# Global Catastrophe Recap

August 2021



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# Executive Summary

- Hurricane Ida leaves catastrophic damage in the United States; economic & insured costs into the 10s of billions
- Magnitude-7.2 earthquake strikes Haiti's Tiburon Peninsula; more than 2,200 people killed
- Record heat and drought conditions prompt extreme wildfire behavior around the globe



#### 150 mph / 240 kph

Hurricane Ida's sustained winds at landfall, tied as the strongest Louisiana landfall since 1851



#### 48.8°C / 119.8°F

A new all-time temperature record for Europe (to be verified by WMO), recorded in Sicily on August 11



#### 7.2

Moment magnitude of the destructive Tiburon Peninsula Earthquake in Haiti on August 14



#### 10.3M ha / 25.4M acres

Extent of land burned by wildfires in Russia YTD as of August 31, up from 5.2M ha on August 1



# United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/30-08/02	Severe Weather	Southwest	1	Hundreds	25+ million
08/01	Severe Weather	Texas	0	12,000+	120+ million
08/07-08/09	Severe Weather	Plains, Midwest	0	11,000+	135+ million
08/10-08/13	Severe Weather	Midwest, Mid-Atlantic	0	110,000+	1.25+ billion
08/10-08/17	Tropical Storm Fred	Southeast, Mid-Atlantic, Northeast	7	62,500+	1.1+ billion
08/10-08/16	Severe Weather	Southwest	3	15,000+	225+ million
08/13-08/31	Caldor Fire	California	0	Thousands	100s of Millions+
08/15-08/30	Ford Corkscrew Fire	Washington	0	Hundreds	100+ million
08/17-08/19	Severe Weather	Southwest	0	25,000+	325+ million
08/20-08/25	Hurricane Henri	Mid-Atlantic, Northeast	0	30,000+	550+ million
08/21	Flooding	Tennessee	20	2,500+	100+ million
08/23-08/25	Severe Weather	Plains, Midwest	0	Thousands	Millions
08/26-08/30	Severe Weather	Plains, Midwest	0	Thousands	10s of Millions
08/28-09/02	Hurricane Ida	Southeast, Mid-Atlantic, Northeast	77	Thousands	10s of Billions

Severe weather and flash flooding in Colorado and Utah resulted in widespread impacts from July 29 – August 2. A Flash Flood Emergency resulted in hundreds of homes being damaged or destroyed, along with infrastructure and agriculture, in Utah and Colorado. Total economic losses were anticipated in the tens of millions (USD).

A severe storm prompted damage in parts of Tarrant County, Texas on August 1 as golf ball-sized hail occurred. Notable damage was incurred to property and vehicles. Total economic losses were listed at USD120 million.

Severe thunderstorms swept across portions of the Plains and Midwest from August 7-9. Large hail was noted in Kansas, while flash flooding occurred in eastern Nebraska. Tornadoes were prevalent in Wisconsin and Illinois. Total economic losses were estimated at USD135 million. Most of the damage was insured.

Consecutive days of powerful thunderstorms swept across the Midwest from August 10-13. Straight-line winds resulted in extensive property damage in Wisconsin, Illinois, Indiana, Michigan, and Ohio. Total economic losses were estimated at upwards of USD1.25 billion. At least three-quarters of the damage was covered by insurance.

After impacting the Caribbean, Tropical Storm Fred came made landfall in the Florida Panhandle with 65 mph (100 kph) winds on August 16. Fred and its remnants generated flood and severe convective storm damage well inland across the Southeast, Appalachians, and Mid-Atlantic from August 16-18. An impactful and life-threating flash-flooding situation unfolded across western North Carolina on August 17. At least seven people were killed. Total economic losses were estimated at up to USD1.1 billion. Roughly half was covered by insurance.

Heavy rain and thunderstorms associated with the Southwest monsoon led to notable damage in Arizona and Texas from August 10-16. At least three people were killed. The worst flooding was noted near El Paso, Texas and Gila Bend, Arizona. Total economic losses were estimated at up to USD225 million.

The Caldor Fire in El Dorado County, California was ignited on August 13 and burned into early September. The fire burned more than 215,000 acres (87,000 hectares) and destroyed at least 920 structures (including 712 homes and 18 commercial properties). Total economic losses were minimally estimated into the hundreds of millions (USD).

The Ford Corkscrew Fire was ignited on August 15 in eastern Washington and destroyed at least 143 homes and other structures. Total economic losses to property and the timber industry were estimated beyond USD100 million.

Severe weather and flooding rainfall affected the Southwest from August 17-19. In Arizona, Flash Flood Emergencies were issued across burn scars near the city of Flagstaff and elsewhere in Gila County. Large hail and damaging winds also affected Colorado and Utah. Total economic losses were estimated at USD325 million.

Tropical Storm Henri made landfall in Rhode Island as a 60 mph (95 kph) tropical storm on August 21. The storm generated significant flooding in portions of New York, New Jersey, and Connecticut while lingering over the region through August 24. Notable flood-related damage was incurred in densely populated areas near New York City and northern New Jersey. Total economic losses were expected at USD550 million; roughly half will be insured.

Catastrophic flash flooding affected portions of Middle Tennessee on August 21, killing at least 20 people in Humphreys, Dickson, and Hickman Counties. Flash Flood Emergencies were declared as extensive damage was reported to structures, property, vehicles, and vegetation. Total economic damage was likely to top USD100 million.

Large hail and damaging straight-line winds were noted in parts of the Plains and Midwest from August 23-25. The hardest-hit areas included in the Dakotas, Wisconsin, Iowa, Illinois, and Michigan. Total economic losses were anticipated to reach into the millions (USD).

Large hail and non-tornadic winds impacted the Plains and Midwest from August 26-30. Grapefruit-size hailstones were noted in South Dakota, while winds gusting beyond 70 mph (110 kph) occurred elsewhere in South Dakota, Minnesota, and Colorado. Total economic losses were expected to be in the millions (USD).

Hurricane Ida made landfall in the United States as a 150 mph (240 kph) Category 4 storm near Port Fourchon, Louisiana on August 29. Ida resulted in extensive wind, storm surge, and inland flood damage across the Southeast before its remnants later spawned exceptional flash flood damage and convective storm impacts into the Mid-Atlantic and Northeast on September 1. At least 77 direct fatalities were confirmed. Total direct economic losses from Ida were anticipated to reach well into the tens of billions (USD), and likely end as one of the costliest U.S. mainland hurricanes on record on a nominal and inflation-adjusted basis. A sizeable portion of the economic damage due to coastal and inland flooding was not expected to be insured. Regardless, public and private insurance entities were likely to cover economic losses into the double-digit billions (USD).

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
04/21-09/30	Flooding	Guatemala	23	3,300+	Millions
07/13-08/31	White Rock Lake Fire	Canada	0	Hundreds	10s of Millions
08/10-08/17	Tropical Storm Fred	Caribbean	0	5,000+	10s of millions
08/14	Earthquake	Haiti	2,207+	140,000+	3+ billion
08/16-08/21	Hurricane Grace	Caribbean, Mexico	13	55,000+	513+ million
08/27-08/30	Hurricane Nora	Mexico	3	Thousands	100+ million
08/28-09/02	Hurricane Ida	Cuba	0	Thousands	100+ million
08/31-09/01	Severe Weather	Canada	0	Thousands	10s of Millions

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

At least 23 lives were lost, and more than 3,300 structures were damaged or destroyed during this year's rainy season in Guatemala. Updated data was released by country's disaster management agency as of early September.

The White Rock Lake wildfire Canada's British Columbia burned at least 81,139 hectares (200,500 acres) of land. The blaze destroyed 28 homes and one business in the Town of Monte Lake, while at least 70 structures in Ewings Landing and Killiney and 11 in Okanagan Indian Band were damaged or destroyed. Total economic losses were anticipated into the millions (USD).

Tropical Storm Fred produced gusty winds and periodic heavy rains across portions of the Caribbean predominantly from August 10-15. Widespread power outages and damage to infrastructure were reported across the Island of Hispaniola, while flooding rainfall affected Cuba. Total economic losses were likely in the tens of millions (USD).

A major and deadly earthquake struck the Tiburon Peninsula of Haiti on August 14, leaving at least 2,207 people dead and 12,268 others injured. The magnitude-7.2 tremor struck at 8:29 AM local time (12:29 UTC) on August 14 with an epicenter 13 kilometers (8 miles) south-southeast of Petit Trou de Nippes. The tremor left nearly 140,000 structures damaged or destroyed in the Sud, Nipples, and Grand'Anse Departments alone. Government officials unofficially estimated USD3 billion in economic damage. Most damage losses will be uninsured.

Hurricane Grace made multiple landfalls in Mexico on August 19 (Category 1; Yucatan Peninsula) and August 21 (Category 3; Mainland Mexico). At least 13 people were killed. The storm spawned major wind and inland flood damage across several states. Prior to reaching Mexico, Grace left damage in parts of the Cayman Islands, Jamaica, and Hispaniola. Total economic losses were estimated beyond USD500 million, primarily in Mexico.

Hurricane Nora made landfall in Mexico's Jalisco state on August 28 as a Category 1 storm, causing notable damage in the popular resort town of Puerto Vallarta and surrounding municipalities. Wind and inland flood-related damage was widespread in many areas. Three people were killed. Total economic losses were beyond USD100 million.

Hurricane Ida tracked across the western Caribbean in late August, making separate landfalls in Cuba as a Category 1 storm. This resulted in extensive agricultural losses, fallen trees and communication lines, and damage to property and structures across the Isle of Youth (Isla de la Juventud) and the Pinar del Rio Province. Total economic losses were estimated beyond USD100 million.

Severe thunderstorms swept across parts of central Canada on August 31 and September 1. Notable wind and hailrelated damage to property was cited in Alberta and Saskatchewan. Among the hardest-hit areas came within the Calgary metro region. Total economic and insured losses were minimally estimated into the tens of millions (USD).

#### South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	Brazil	N/A	N/A	3+ billion
07/01-08/31	Flooding	Colombia	13	18,900+	Millions
08/22-08/24	Flooding	Venezuela	20	8,100+	Millions

The worst drought in 91 years continued to affect Brazil, notably in the Paraná River region. Substantial impacts to the agricultural sector became increasingly apparent, with the Department of Agriculture citing up to BRL11 billion (USD2.1 billion) in damage to the corn crop alone due to drought and recent bouts of frost. The overall direct economic impact was anticipated to top USD3 billion.

Seasonal flooding continued to affect parts of Colombia during August. Heavy rains affected 161 municipalities in 26 departments and claimed seven lives. According to UNGRD, nearly 13,000 homes were damaged or destroyed. The worst affected areas were Norte de Santander, Cundinamarca, Antioquia, Córdoba, Sucre, Bolivar, and Tolima.

Torrential rainfall impacted Venezuela in late August, notably the states of Amazonas, Apure, Aragua, Barinas, Bolí var, Carabobo, Delta Amacuro, Mérida, Monagas, Táchira and Zulia, and Caracas. At least 8,100 homes were damaged or destroyed. As many as 20 people were left dead or missing due to floods in Mérida alone.

# Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/28-08/09	Wildfire	Greece	2	1,500+	580+ million
08/05-08/07	Severe Weather	Central & Eastern Europe	0	Hundreds	10s of millions
08/12-08/16	Severe Weather	Central Europe	3	Hundreds	10s of millions
08/12-08/14	Flooding	Russia	0	1,500+	2.1+ million
08/17-08/18	Flooding	Sweden	0	4,500+	50+ million
08/24-08/25	Severe Weather	Southern Europe	0	Hundreds	10s of millions

Major wildfires burned in Greece from late July into early August, causing significant property and environmental damage. The largest fires burned in northwestern Evia, north of Athens in Attika and in Peloponnese. Two people were killed, and hundreds of homes were damaged or destroyed.

Severe weather affected parts of Central and Eastern Europe from August 5-7. Flooding triggered by heavy rainfall occurred in the Krakow area of Malopolskie Voivodeship in Poland. Strong thunderstorms also affected parts of Western Ukraine, southeastern Bayern in Germany, and Salzburg and Oberösterreich in Austria. Total economic losses were expected in the millions (EUR).

Multiple rounds of severe weather occurred in Central Europe from August 12-16. The most significant event of the outbreak was a F2-rated tornado that hit the municipality of Großheide in Aurich District of Niedersachsen, Germany and left at least 50 homes damaged. Further storm-related damage was also reported from France, Austria, Italy, Slovakia, and Poland, with collective economic losses running into the tens of millions EUR.

Heavy rains from August 12-14 affected parts of Russia's Black Sea coast, particularly the Krasnodar Region, where strong winds and heavy rainfall caused flooding and widespread power outages. Heavy rainfall triggered flash floods in Anapa, Slavyansky, and Temryuk districts. Nearly 1,500 residential buildings and 1,900 land plots were flooded.

Intense rainfall affected central Sweden on August 17-18 and resulted in significant flooding in Gävleborg and Dalarna counties. Gävle received 161.6 millimeters (6.4 inches) of rain within a 24-hour period, approximately twice the climatological monthly amount of rainfall for August. Major national insurance companies received approximately 4,500 flood-related claims.

Thunderstorms developed in parts of Spain, France and Italy on August 24-25, causing relatively minor, yet notable losses. Central and Eastern Spain were affected, with notable viticulture losses. Heavy downpours and subsequent flash flooding affected 20 municipalities in the Province of Jaén in Andalusia. Localized flooding also ensued in southern France due to significant rainfall amount in the Var department; additional strong thunderstorms also developed in parts of Central Italy, in the vicinity of Rome and Naples.

## Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
08/11	Flooding	Turkey	82	Hundreds	100+ million

Severe flash flooding and landslides, triggered by heavy rainfall, caused significant damage in Bartin, Kastamonu and Sinop provinces of Turkey's Black Sea Region on August 11, claiming 82 lives. The worst affected districts were Ulus in Bartin; Azdavay, İnebolu, Bozkurt, Küre and Pınarbaşı in Kastamonu; and Ayancık in Sinop. More than 1,300 residents were evacuated to safety. Total economic losses are expected to exceed USD100 million.

# Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/01-08/31	Flooding	South Sudan	7	Thousands	Unknown
06/15-08/31	Flooding	Niger	64	5,100+	Millions
07/01-08/31	Flooding	Nigeria	0	2,500+	Unknown
07/20-08/31	Flooding	Sudan	52	14,600+	Millions
08/09-08/15	Wildfire	Algeria	90	N/A	Millions
08/11-08/31	Flooding	Somalia	2	2,000+	Unknown

Persistent rainfall led to further seasonal flooding in South Sudan. The United Nations cited that at least 380,000 people had been affected since May. The most affected states included Unity, Jonglei, and Northern Bahr el Ghazal. At least seven people were killed, and thousands of homes inundated.

The death toll from seasonal rains in Niger rose to at least 64 since June. More than 5,100 homes had been identified by the government as damaged or destroyed, along with swaths of infrastructure and agriculture.

Seasonal flooding persisted in northern and northeastern Nigeria during August, notably in the states of Jigawa, Bauchi, Adamawa and Borno. At least 1,500 houses were damaged to various degrees in Bauchi alone on August 10. Other areas affected included the states of Jalingo, Taraba, and the city of Lagos.

Heavy rains in Sudan since July has seen the death toll rise to at least 52. Notable damage from August floods resulted in at least 4,400 homes being destroyed and another 10,230 being damaged. Government officials cited the states of River Nile, Gedaref and Khartoum as the hardest hit.

Dozens of wildfires erupted in northern Algeria amid a scorching heatwave in early August, as temperatures rose above 46°C (115°F) and extremely dry conditions aided in their spread. Among the worst hit was Kabylia region. The event claimed 90 lives, including 57 civilians and 33 soldiers.

Seasonal floods affected parts of Somalia's Shabelle River Basin from August 11 through the end of the month. Thousands of people were displaced and at least two people were killed.

# Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	China	N/A	N/A	2.25+ billion
06/01-09/30	Flooding	China	396	994,000+	27+ billion
06/01-09/30	Flooding	India	727	55,000+	2+ billion
08/01-08/03	Flooding	North Korea	0	1,700+	Unknown
08/02-08/06	Tropical Storm Lupit	China, Taiwan, Japan	0	10,200+	40+ million
08/04	Severe Weather	Bangladesh	17	N/A	N/A
08/08-08/10	Severe Weather	China	6	5,000+	150+ million
08/10-08/15	Severe Weather	China	0	Thousands	75+ million
08/11-08/16	Flooding	Japan	12	10,000+	100s of Millions
08/14	Flooding	Indonesia	0	1,500+	14+ million
08/23-08/24	Tropical Depression Omais	South Korea	0	Hundreds	Millions
08/26-08/30	Flooding	Indonesia	0	18,500+	Millions

Severe drought conditions affected parts of 13 Chinese provinces during August. The hardest-hit areas included Shaanxi, Gansu, Ningxia, Guangxi, and Fujian. China's Ministry of Emergency Management (MEM) cited nearly 1.5 million hectares (3.7 million acres) of affected cropland. The monthly economic damage was CNY7.4 billion (USD1.2 billion). This raised the annual drought total to USD2.25 billion.

Continued seasonal monsoon rainfall led to nearly 50 additional fatalities across China in August. The worst floods were noted in southern Shaanxi, Sichuan Basin, and the middle reaches of the Yangtze River. Total economic losses to property, infrastructure, and agriculture in August tallied CNY17 billion (USD1.65 billion). The annual seasonal flood total rose to at least USD27 billion.

Further flooding rains and convective storm impacts from India's seasonal monsoon resulted in more than 100 additional fatalities in August. Government data highlighted that the seasonal death toll rose to 727 with more than 55,000 homes damaged or destroyed. The total economic damage was estimated at USD2 billion.

Heavy rainfall resulted in significant flooding in northeastern parts of North Korea in early August. More than 1,000 structures were reported as damaged, though the total was likely far higher.

Tropical Storm Lupit made two landfalls in Guangdong and Fujian provinces of China on August 5 and later affected Taiwan and parts of Japan. Heavy rainfall and strong winds prompted evacuation of at least 33,000 people in China alone. Total combined economic losses were estimated at USD40 million; more than half from China.

Lightning strikes in Bangladesh on August 4 left at least 17 people dead and 14 others injured. The fatalities occurred along the bank of the Padma River near the town of Shibganj in the Chapai Nawabganj District.

Severe weather prompted notable damage in China's Hubei Province from August 8-10. Damaging winds were the primary damage driver, which also left six people dead. Total economic losses were at least USD150 million.

Consecutive days of thunderstorms affected a wide swath of China's Xinjiang region from August 10-15. Thousands of homes and other structures were damaged or destroyed by large hail and gusty winds. Agricultural interests were also heavily affected. Total economic losses were estimated at CNY484 million (USD75 million).

Record-breaking rainfall affected southwest Japan, particularly portions of Kyushu and Honshu, between August 11-16. The incessant rains resulted in extensive flooding and numerous landslides which resulted in at least 12 fatalities. As many as 10,000 homes and other structures were damaged. Total economic losses were expected to minimally reach into the hundreds of millions (USD); if not higher.

Notable flooding hit the North Nias Regency in northern Sumatra in Indonesia on August 14, inundating hundreds of homes and other structures. Local authorities estimated total losses at USD14 million.

Tropical Depression Omais brought heavy rainfall to South Korea on August 23-24. Portions of Jeju Island, South Jeolla, and South Gyeongsang Provinces were most affected. Hundreds of homes and businesses were flooded.

Heavy rains in late August resulted in notable flooding and landslides in Indonesia. Five people were killed due to a landslide in Karo Regency of North Sumatra Province on August 26. Nearly 10,000 homes were later flooded in the provincial regions of Kalimantan and Sulawesi.

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

	Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
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There were no significant natural disasters in Oceania in the month of August.

# Appendix: Updated 2021 Data

## United States

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	Nationwide	N/A	N/A	1.0+ billion
01/11-01/13	Severe Weather	Northwest	2	40,000+	675+ million
01/17-01/20	Severe Weather	California	0	24,000+	350+ million
01/24-01/27	Severe Weather	Plains, Midwest, South	1	6,000+	120+ million
01/24-01/29	Flooding	West	2	75,000+	1.75+ billion
01/30-02/03	Winter Weather	Midwest, Northeast	4	10,000+	100+ million
02/08-02/12	Winter Weather	Plains, Southeast, Mid-Atlantic	9	10,000+	75+ million
02/12-02/20	Winter Weather	Western, Central, Eastern U.S.	215	690,000+	23+ billion
02/25-02/26	Severe Weather	Texas	0	20,000+	210+ million
02/25-03/01	Flooding	Plains, Southeast, Mid-Atlantic	1	10,000+	150+ million
03/08-03/10	Flooding	Hawaii	0	Thousands	50+ million
03/09-03/11	Severe Weather	Plains, Midwest	0	5,000+	75+ million
03/12-03/15	Winter Weather	Plains, Rockies	0	Thousands	75+ million
03/16-03/18	Severe Weather	Plains, Southeast	0	50,000+	500+ million
03/22-03/23	Severe Weather	Plains	0	30,000+	315+ million
03/24-03/26	Severe Weather	Plains, Southeast, Midwest, Northeast	6	125,000+	1.6+ billion
03/27-03/29	Severe Weather	Tennessee Valley, Mid-Atlantic	8	95,000+	1.7+ billion
04/06-04/08	Severe Weather	Plains, Midwest, Southeast	0	55,000+	880+ million
04/09-04/11	Severe Weather	Plains, Southeast	3	88,000+	945+ million
04/12-04/14	Severe Weather	Plains, Southeast	13	25,000+	215+ million
04/15-04/16	Severe Weather	Texas	0	129,000+	1.45+ billion
04/18-04/18	Severe Weather	Southeast	0	2,500+	25+ million
04/21-04/22	Severe Weather	Northeast	0	5,000+	75+ million
04/23-04/25	Severe Weather	Plains, Southeast	1	35,000+	390+ million
04/27-05/02	Severe Weather	Plains, Southeast, Mid-Atlantic	0	210,000+	2.6+ billion
05/03-05/05	Severe Weather	Plains, Southeast, Mid-Atlantic	4	105,000+	1.15+ billion
05/06-05/11	Severe Weather	Plains, Southeast	1	40,000+	350+ million
05/14-05/19	Severe Weather	Plains, Southeast	5	80,000+	1.5+ billion
05/22-05/27	Severe Weather	Plains, Midwest	0	45,000+	525+ million
05/25-05/26	Severe Weather	Mid-Atlantic, Northeast	0	12,500+	160+ million
05/29-05/31	Severe Weather	Rockies, Plains	1	20,000+	205+ million
06/02-07/04	Telegraph Fire	Arizona	0	Hundreds	Millions
06/03-06/04	Severe Weather	Mid-Atlantic, Northeast	0	7,500+	50+ million
06/07-06/10	Severe Weather	Plains, Rockies	0	10,000+	50+ million
06/07-06/10	Flooding	Plains, Southeast	0	20,000+	950+ million
06/11-06/14	Severe Weather	Plains, Midwest, Mid-Atlantic, Northeast	1	40,000+	325+ million
06/17-06/21	Severe Weather	Plains, Midwest, Mid-Atlantic, Northeast	1	100,000+	1.35+ billion
06/18-06/21	Tropical Storm Claudette	Southeast	14	32,500+	350+ million
06/24-07/01	Severe Weather	Plains, Midwest, Mid-Atlantic, Northeast	2	100,000+	1.65+ billion
06/26-06/30	Heatwave	Northwest	229+	Unknown	Unknown
07/03-07/31	Beckwourth Complex Fire	California	0	1,000+	Millions
07/06-07/09	Hurricane Elsa	Southeast, Mid-Atlantic, Northeast	1	75,000+	775+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
07/06-07/07	Severe Weather	Midwest, Mid-Atlantic, Northeast	0	2,000+	35+ million
07/06-07/31	Bootleg Fire	Oregon	0	1,000+	100+ million
07/07-07/08	Flooding	Texas	0	2,500+	65+ million
07/08-07/10	Severe Weather	Plains, Midwest	1	72,500+	800+ million
07/09-07/11	Severe Weather	Southwest	0	45,000+	600+ million
07/12-07/13	Flooding	Mid-Atlantic, Northeast	0	5,000+	100+ million
07/13-08/11	Dixie Fire	California	0	2,000+	100s of millions
07/16-07/19	Severe Weather	Midwest, Mid-Atlantic, Southeast	0	7,500+	75+ million
07/16-07/21	Severe Weather	Southwest	8	2,000+	50+ million
07/22-07/28	Severe Weather	Southwest	9	20,000+	300+ million
07/24	Severe Weather	Midwest	0	10,000+	115+ million
07/26-07/27	Severe Weather	Midwest	0	Thousands	100s of millions
07/28-07/29	Severe Weather	Midwest, Mid-Atlantic, Northeast	0	25,000+	315+ million

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	Mexico	N/A	N/A	2+ billion
01/01-12/31	Drought	Canada	N/A	N/A	2.5+ billion
01/12-01/14	Severe Weather	Canada	0	7,600+	130+ million
01/19-01/20	Severe Weather	Canada	0	3,200+	45+ million
02/12-02/20	Winter Weather	Mexico	20	Unknown	1.5+ billion
03/26-03/29	Severe Weather	Canada	0	4,100+	150+ million
04/03-04/12	Flooding	Haiti	7	2,676+	Unknown
04/09-04/30	Volcano	St. Vincent	0	Unknown	325+ million
05/16-05/18	Severe Weather	Mexico	0	2,000+	50+ million
06/08	Severe Weather	Canada	0	2,000+	25+ million
06/11	Severe Weather	Canada	0	1,500+	20+ million
06/12-06/14	Flooding	Panama	1	1,000+	Millions
06/18-06/20	Tropical Storm Dolores	Mexico	3	1,000+	50+ million
06/21-06/22	Severe Weather	Canada	1	1,500+	25+ million
06/27-06/30	Hurricane Enrique	Mexico	2	1,000+	50+ million
06/27-06/30	Heatwave	Canada	808+	Unknown	Unknown
06/29-06/30	Severe Weather	Canada	0	2,000+	25+ million
06/30-07/02	Lytton Creek Wildfire	Canada	2	350+	140+ million
07/01-07/09	Hurricane Elsa	Caribbean	3	Thousands	100+ million
07/02-07/03	Severe Weather	Canada	0	37,500+	525+ million
07/15	Severe Weather	Canada	0	2,300+	84+ million
07/16-07/17	Flooding	Canada	0	Thousands	10s of millions
07/22-07/23	Severe Weather	Canada	0	3,500+	60+ million
07/22-07/24	Flooding	Central America	0	6,900+	Millions

## South America

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/01-12/31	Drought	Paraguay	N/A	N/A	100+ million
01/01-12/31	Drought	Argentina	N/A	N/A	100+ million
01/01-01/03	Severe Weather	Brazil	2	3,200+	19+ million
01/04	Severe Weather	Bolivia	4	Thousands	Millions
01/01-01/09	Flooding	Guyana	0	2,800+	Millions
01/16-01/20	Flooding	Bolivia	1	2,000+	Millions
01/18	Earthquake	Argentina	0	33,000+	250+ million
01/21-01/24	Severe Weather	Brazil	2	5,000+	25+ million
01/26-01/29	Severe Weather	Brazil	0	33,000+	11+ million
01/29-02/01	Severe Weather	Chile	0	Hundreds	175+ million
01/31-02/01	Flooding	Paraguay	10	Thousands	Millions
02/10-02/22	Flooding	Brazil	0	35,900+	36+ million
02/12-02/20	Flooding	Peru	1	4,000+	25+ million
02/19-02/21	Severe Weather	Brazil	6	7,300+	26+ million
03/01-06/15	Flooding	Colombia	71+	17,300+	10s of millions
03/08-03/11	Severe Weather	Brazil	0	Hundreds	632+ million
03/09-03/10	Wildfire	Argentina	2	502+	Millions
03/15-03/19	Severe Weather	Brazil	0	Hundreds	388+ million
03/20-03/31	Flooding	Peru	1	3,000+	Millions
03/31	Severe Weather	Brazil	0	3,500+	49+ million
04/19-04/22	Flooding	Brazil	0	3,000+	Millions
04/20-06/05	Flooding	Brazil	0	4,600+	40+ million
05/11-06/30	Flooding	Guyana	0	49,000+	Millions
06/08-06/09	Flooding	Brazil	0	2,200+	4.0+ million
06/16	Flooding	Brazil	0	Thousands	82+ million
07/19-07/31	Winter Weather	Brazil	N/A	Unknown	Millions
07/30	Earthquake	Peru	0	Hundreds	Millions

## Europe

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/06-01/12	Flooding	Southeastern Europe	0	2,500+	10s of millions
01/08-01/12	Storm Filomena	Spain	4	159,000+	1.9+ billion
01/13-03/31	Winter Weather	Switzerland, Austria	17	Hundreds	60+ million
01/20-01/21	Windstorm Christoph	Western Europe	0	Thousands	455+ million
01/21-01/22	Windstorm Hortense	France, Spain	0	Thousands	90+ million
01/23-01/31	Earthquake	Spain	0	9,200+	35+ million
02/01-02/10	Flooding	France	0	Thousands	10s of millions
02/01-02/15	Winter Weather	Western, Central & Northern Europe	N/A	Unknown	100s of millions
02/15-02/17	Winter Weather	Greece	0	2,027+	30+ million
03/03	Earthquake	Greece	0	900+	10s of millions
03/10-03/11	Windstorm Klaus	Western & Central Europe	0	Thousands	100s of millions
03/13	Windstorm Luis	Western & Central Europe	0	Thousands	100s of millions
03/18-03/23	Winter Weather	Spain	0	NA	80+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
04/05-04/08	Winter Weather	Western & Central Europe	NA	NA	5.6+ billion
04/13-04/18	Winter Weather	Spain	0	NA	40+ million
05/01-05/02	Windstorm Daniel	Austria	0	Thousands	Millions
05/04-05/05	Windstorm Eugen	Western Europe	0	Thousands	10s of millions
05/11-05/17	Flooding	Central Europe	1	2,300+	40+ million
05/29-06/14	Severe Weather	Spain, Portugal	0	Thousands	70+ million
06/04-06/09	Severe Weather	Western and Central Europe	2	Thousands	10s of million
06/17-06/18	Flooding	Ukraine	1	400+	170+ million
06/17-06/25	Severe Weather	Western and Central Europe	7	975,000+	4.8+ billion
06/28-06/30	Severe Weather	Central Europe	1	300,000+	2.3+ billion
07/03-07/05	Wildfire	Cyprus	4	50+	Millions
07/04-07/07	Flooding	Russia, Georgia, Ukraine	11	1,150+	28+ million
07/08-07/09	Severe Weather	Italy, Central Europe	2	Hundreds	90+ million
07/12-07/18	Flooding	Western & Central Europe	240	100,000+	30+ billion
07/17-07/19	Flooding	Central Europe	0	Thousands	200+ million
07/23-07/28	Severe Weather	Western & Central Europe	3	Thousands	250+ million
07/23-07/25	Wildfire	Italy	0	Hundreds	10s of millions
07/28-08/02	Severe Weather	Italy, France, Austria, Russia	3	Hundreds	80+ million

## Middle East

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
02/01-02/02	Flooding	Turkey	0	3,000+	70+ million
02/17	Earthquake	Iran	2	5,800+	10s of millions
04/15-05/05	Flooding	Yemen	13	3,700	10+ million
05/01-05/05	Flooding	Iran	11	Hundreds	Millions
07/14-07/21	Flooding	Iran	10	Hundreds	Unknown
07/15-07/16	Flooding	Oman	7	Hundreds	80+ million
07/16-07/22	Flooding	Yemen	14	Unknown	Unknown
07/21	Flooding	Turkey	3	1,500+	23+ million
07/28-07/31	Wildfire	Turkey, Lebanon	9	2,700+	232+ million

## Africa

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/19-01/21	Cyclone Eloise	Southern Africa	25	35,000+	10s of millions
02/01-02/14	Flooding	South Africa	31	Hundreds	75+ million
02/01-05/31	Flooding	Burundi	0	2,000+	Unknown
02/06-02/07	Flooding	Morocco	28	Hundreds	Millions
03/06-03/07	Flooding	Algeria	10	Hundreds	Millions
03/15-03/16	Flooding	DRC, Angola	11	550+	Unknown
04/07-05/31	Flooding	Kenya	9	4,500+	Millions
04/18-04/20	Wildfire	South Africa	0	11	10s of millions
04/19	Flooding	Angola	24	2,350+	Millions
04/23-04/25	Cyclone Jobo	East Africa	22	6,000+	Millions

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
05/01-05/31	Flooding	Somalia	25	Thousands	Unknown
05/01-05/31	Flooding	Ethiopia	16	Hundreds	Unknown
05/22-05/23	Volcano	Democratic Republic of the Congo	32	Hundreds	Millions
06/26-07/31	Flooding	Chad	5	4,500+	Unknown
07/02-07/08	Severe Weather	Gambia	10	1,000+	Unknown

## Asia

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
12/31-01/05	Flooding	Indonesia	3	2,500+	Unknown
01/01-01/04	Severe Weather	Philippines	9	550+	10s of millions
01/06-01/08	Winter Weather	China	0	Hundreds	191+ million
01/07-01/12	Winter Weather	Japan	23	69,630+	2.0+ billion
01/08-01/12	Winter Weather	Taiwan	18	N/A	Unknown
01/08-01/24	Severe Weather	Philippines	3	3,500+	Millions
01/09-01/15	Flooding	Indonesia	21	46,000+	78+ million
01/14	Earthquake	Indonesia	108	7,100+	92+ million
01/14-01/17	Winter Weather	China	0	Hundreds	115+ million
02/07-02/08	Flooding	India	205	Thousands	210+ million
02/13	Earthquake	Japan	1	221,994+	7.5+ billion
02/14	Flooding	Indonesia	19	Dozens	Negligible
02/15-02/19	Winter Weather	Japan	0	Hundreds	10s of millions
02/19-02/23	Flooding	Indonesia	14	8,600+	Millions
02/20-02/24	Tropical Storm Dujuan	Philippines	5	2,300+	10+ million
02/22-02/25	Winter Weather	China	1	Unknown	76+ million
02/23-02/26	Flooding	Indonesia	1	9,200+	Millions
03/12-03/16	Sandstorm	Mongolia, China	21	Hundreds	10s of millions
03/20	Earthquake	Japan	0	26,480+	550+ million
03/25-03/31	Severe Weather	Indonesia	0	14,000+	Millions
04/03-04/05	Cyclone Seroja	Indonesia, Timor-Leste	275	75,000+	400+ million
04/10	Earthquake	Indonesia	10	1,350+	Millions
04/17-04/21	Typhoon Surigae	Philippines	9	3,500+	10+ million
04/23	Other	India	18	N/A	Negligible
04/30	Severe Weather	China	11	6,000+	Millions
05/01-05/31	Flooding	China	4	3,000+	750+ million
05/02-05/05	Flooding	Afghanistan	116	2,600+	Millions
05/13-05/15	Severe Weather	China	14	11,700+	96+ million
05/14-05/19	Cyclone Tauktae	India, Sri Lanka, Maldives	198	141,600+	1.5+ billion
05/21	Earthquake	China	3	19,000+	49+ million
05/22	Earthquake	China	0	8,200+	21+ million
05/22	Severe Weather	China	21	N/A	N/A
05/25-05/29	Cyclone Yaas	India	19	325,000+	3.0+ billion
05/25-05/27	Flooding	Indonesia	0	8,900+	Millions
05/27-05/29	Flooding	Indonesia	0	4,100+	Millions
05/31	Severe Weather	Pakistan	12	Dozens	Negligible
06/01-06/03	Tropical Storm Choi-wan	Philippines, Taiwan	11	4,200+	11+ million

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
06/03-06/08	Flooding	Sri Lanka	22	2,300+	Millions
06/04-06/07	Severe Weather	Bangladesh	30	Hundreds	Unknown
06/10	Earthquake	China	0	2,700+	Millions
06/10-06/15	Tropical Storm Koguma	Vietnam, Laos	1	5,500+	13+ million
06/15-06/21	Flooding	Nepal, Bhutan	50	Hundreds	Unknown
06/25	Severe Weather	China	8	5,000+	Millions
06/01-08/11	Flooding	Nepal	111	1,000+	2.5+ million
06/24-07/31	Flooding	Russia	0	2,900+	200+ million
06/25	Severe Weather	China	8	5,000+	Millions
07/01-07/05	Flooding	Japan	22	2,565+	100+ million
07/01-09/30	Flooding	Pakistan	157	1,000+	Millions
07/05-07/07	Flooding	Indonesia	0	2,000+	Unknown
07/10-07/11	Severe Weather	China	0	Thousands	50+ million
07/12	Flooding	Kyrgyzstan & Uzbekistan	15	Unknown	Unknown
07/13-07/22	Flooding	Indonesia	0	13,000+	Millions
07/18-07/21	Typhoon Cempaka	China, Vietnam	3	Hundreds	Millions
07/19	Flooding	Tajikistan	12	150+	Unknown
07/21-07/28	Typhoon In-fa	China, Philippines, Japan, Taiwan	5	50,000+	1.1+ billion
07/21-07/27	Flooding	Myanmar	0	Thousands	Unknown
07/27-07/28	Flooding	Bangladesh	21	3,200+	Unknown
07/28-07/29	Flooding	Afghanistan	150	300+	Unknown

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

Date	Event	Location	Deaths	Structures/ Claims	Economic Loss (USD)
01/03-01/07	Cyclone Imogen	Australia	0	Hundreds	10s of millions
01/30-01/31	Cyclone Ana	Fiji	1	Thousands	Millions
02/01-02/05	Wildfire	Australia	0	1,070+	120+ million
02/03-02/08	Flooding	Australia	0	Hundreds	10s of millions
02/25-03/07	Cyclone Niran	Australia, New Caledonia	0	Thousands	250+ million
03/10-03/24	Flooding	Australia	2	53,000+	2.1+ billion
04/11-04/12	Cyclone Seroja	Australia	1	8,149+	530+ million
05/29-06/01	Flooding	New Zealand	0	3,550+	50+ million
06/09-06/12	Severe Weather	Australia	2	25,000+	330+ million
06/19	Severe Weather	New Zealand	1	1,600+	30+ million
07/15-07/18	Flooding	New Zealand	0	Hundreds	Millions

# 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 determined based on various public media sources, including news websites, publications from insurance companies, financial institution press releases, and official government agencies. Economic loss totals are separate from any available insured loss estimates. An insured loss is the portion of the economic loss covered by public or private insurance entities. In rare instances, specific events may include modeled loss estimates determined from utilizing Impact Forecasting's suite of catastrophe model products.

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Aon plc (NYSE: AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

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