



2011: A Year of Extremes

In 2011, the United States of America has already seen a record 12 disasters that each inflicted more than a billion dollars in damages. The total damage amounts are estimated at well over \$50 billion. Nearly 650 lives were lost in these disasters.

Winter Storm

- **Groundhog Day Blizzard, Jan 29-Feb 3, 2011** Large winter storm impacting many central, eastern and northeastern states. The city of Chicago was brought to a virtual standstill as between 1 and 2 feet of snow fell over the area. Insured losses greater than \$1.1 billion; total losses greater than \$2.0 billion; 36 deaths.

Hurricanes/Tropical Storms

- **Hurricane Irene, August 20-29, 2011** While it will take several months to determine an accurate estimate of the damage from Hurricane Irene, there is no question it will rank as the 10th billion-dollar weather/climate event of the year. This 10th U.S. billion-dollar disaster officially breaks the annual record dating back to 1980. Irene was the first storm to threaten the New York City area since Hurricane Gloria in September 1985. Irene was similar in size to Hurricane Katrina nearly six years ago to the date. An estimated 55 people died as a result of the storm, according to media reports. About 3.5 million customers were without power, that's about 9 million people (media reports). The storm affected upwards of 80 million people (source: CIESEN, Columbia University). 2.3 million people were under mandatory evacuation orders.
- **Tropical Storm Lee and remnants, Sept 1-10, 2011** Tropical Storm Lee impacts are still being assessed, but early estimates indicate the significant flooding caused millions of dollars in damages and several fatalities.

Floods

From Oct. 1, 2010, to current there have been at least 77 fatalities, 46 of which were in vehicles. There has been more than \$10 billion in flood losses. The average losses have more than doubled during the last 20 years. (All adjusted for inflation)

- 1981 to 1990 damages averaged \$4.7 billion
- 1991-2000 damages averaged \$7.9 billion
- 2001- present damages averaged \$10.2 billion
- **Upper Midwest Flooding, Summer, 2011** Melting of an above-average snow pack across the Northern Rocky Mountains combined with above-average precipitation caused the Missouri and Souris Rivers to swell beyond their banks across the Upper Midwest (MT, ND, SD, NE, IA, KS, MO). An estimated 11,000 people were forced to evacuate Minot, North

Dakota due to the record high water level of the Souris River, where 4,000 homes were flooded. Numerous levees were breached along the Missouri River, flooding thousands of acres of farmland. Estimated losses exceed \$2.0 billion as the event continues to unfold (as of 8/15). The flooding also stretched into the Canadian Prairies, where property and agriculture losses were expected to surpass \$1.0 billion, at least 5 deaths.

- **Mississippi River flooding, Spring-Summer, 2011** Persistent rainfall (nearly 300 percent normal precipitation amounts in the Ohio Valley) combined with melting snowpack caused historical flooding along the Mississippi River and its tributaries. Estimated economic loss ranges from \$2.0-4.0 billion; at least 2 deaths. Below are more detailed stats, which are preliminary, as the event continues to unfold (as of 8/15): \$500 million to agriculture in Arkansas; \$320 million in damage to Memphis, Tennessee; \$800 million to agriculture in Mississippi; \$317 million to agriculture and property in Missouri's Birds Point-New Madrid Spillway; \$80 million for the first 30 days of flood fighting efforts in Louisiana.

Drought/Heat/Wildfires

- **Southern Plains/Southwest Drought, Heatwave, & Wildfires, Spring-Summer, 2011** Drought, heatwave, and wildfires have created major impacts across the Texas, Oklahoma, New Mexico, Arizona, southern Kansas, and western Arkansas and Louisiana. In Texas and Oklahoma, respectively, 75% and 63% of range and pasture conditions were classified in 'very poor' condition as of mid-August. Wildfire fighting/suppression costs for the region are also ~\$1 million / day with over 2,000 homes and structures lost. The total direct losses (as of August 15) to agriculture, cattle and structures are well over \$5.0 billion; both direct and total economic losses will rise dramatically as the event continues. The heat Texas experienced from June through August is the hottest on record in the U.S.

Tornadoes

- 1,782 tornadoes claimed more than 549 lives in 2011, making it the 4th deadliest tornado year in U.S. history. A record 875 tornadoes killed 364 people in the U.S. during April 2011, making it the most extreme tornado month in U.S. history.
- **Midwest/Southeast Tornadoes, May 22-27, 2011** Outbreak of tornadoes over central and southern states (MO, TX, OK, KS, AR, GA, TN, VA, KY, IN, IL, OH, WI, MN, PA) with an estimated 180 tornadoes and 177 deaths. Notably, an EF-5 tornado struck Joplin, MO resulting in at least 157 deaths, making it the deadliest single tornado to strike the U.S. since modern tornado record keeping began in 1950. Over \$4.9 billion insured losses for event; total losses greater than \$7.0 billion; 177 deaths.
- **Southeast/Ohio Valley/Midwest Tornadoes, April 25-30, 2011** Outbreak of tornadoes over central and southern states (AL, AR, LA, MS, GA, TN, VA, KY, IL, MO, OH, TX, OK) with an estimated 305 tornadoes and 327 deaths. Of those fatalities, 240 occurred in Alabama. The deadliest tornado of the outbreak, an EF-5, hit northern Alabama, killing 78 people. Several major metropolitan areas were directly impacted by strong tornadoes including Tuscaloosa, Birmingham, and Huntsville in Alabama and Chattanooga, Tennessee, causing the estimated damage costs to soar. Over \$6.6 billion insured losses; total losses greater than \$9.0 billion; 327 deaths.

- **Midwest/Southeast Tornadoes, April 14-16, 2011** Outbreak of tornadoes over central and southern states (OK, TX, AR, MS, AL, GA, NC, SC, VA, PA) with an estimated 160 tornadoes. Despite the large overall number of tornadoes, few were classified as intense, with just 14 EF-3, and no EF-4 or EF-5 tornadoes identified. Over \$1.4 billion insured losses; total losses greater than \$2.0 billion; 38 deaths [22 of which were in North Carolina].
- **Southeast/Midwest Tornadoes, April 8-11, 2011** Outbreak of tornadoes over central and southern states (NC, SC, TN, AL, TX, OK, KS, IA, WI) with an estimated 59 tornadoes. Over \$1.5 billion insured losses; total losses greater than \$2.2 billion; numerous injuries, 0 deaths.
- **Midwest/Southeast Tornadoes, April 4-5, 2011** Outbreak of tornadoes over central and southern states (KS, MO, IA, IL, WI, KY, GA, TN, NC, SC) with an estimated 46 tornadoes. Over \$1.6 billion insured losses; total losses greater than \$2.3 billion; 9 deaths.

According to Munich Reinsurance of America, The average annual number of natural disasters in the U.S. since 1980 has more than tripled. What's more, average thunderstorm losses have increased five-fold since 1980. 2011 has already more than doubled the \$10 billion in thunderstorm losses from 2010.

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Natural Disasters in the United States, 1980 – 2011

Number of Events (Annual Totals 1980 – 2010 vs. First Eight Months 2011)

