

2012

Top Ten National Weather/Climate Events

The following table lists the **top ten U.S.** weather/climate events of 2012. These events are listed according to their overall rank, as voted on by a panel of weather/climate experts. The voters considered factors such as the scope and unusualness of the event, its immediate human and economic impact, and whether it is emblematic of climate trends or variability.

| Rank | Event | When Occurred | National Event Description |
|------|--|--------------------------|---|
| 1 |  Hurricane/ Post-Tropical Storm Sandy | October 2012 | Sandy made landfall near Atlantic City, NJ on October 29 with sustained winds of 80 mph and a central minimum pressure of 946mb, the lowest pressure on record along the Northeast coast*. Sandy's large size and track brought record storm surge to many locations throughout the Northeast. The Battery, in New York City Harbor, had an observed water level of 13.88 feet, besting the previous record set by Hurricane Donna in 1960 by 3 feet. Sandy also brought torrential rainfall to the Mid-Atlantic with over 12 inches of rain observed in parts of Maryland. In addition, Sandy generated blizzard conditions for the central and southern Appalachians with more than a foot of snow falling in six states from North Carolina to Pennsylvania, shattering October snow records. Over 130 fatalities were reported and over 8 million homes were without power. |
| 2 |  CONUS Drought | Throughout 2012 | Areal extent of drought (based on PDSI) in July was comparable to the drought of the 1950s; intensity of dryness in various states combined with intensity of heat resulted in record or near-record evaporation rates. Major impact on corn, soybean and wheat belts in addition to livestock production. Drought upstream of the Lower Mississippi River caused near-record low stream flows along the river in Mississippi and Louisiana, resulting in limited river transportation/commerce. |
| 3 | CONUS Warmest Year on Record | Annual 2012 | Spring, March, July and the annual CONUS temperature all were warmest on record. March temperatures were the second largest warm departure from average of any month, and July was the warmest month of any month in the 1,400+ months of the U.S. data record. The spring temperature departure from average was the largest on record for any season. The summer heat peaked near the end of June, when over 170 all-time temperature records were broken across the nation. Each of the 16 months from June 2011 through September 2012 had temperatures among their warmest third, the longest such stretch on record. The 2012 annual temperature was 55.3°F, 3.2°F above average and 1.0°F warmer than the previous record in 1998. Nineteen states had their warmest year on record and an additional 26 states had one of their 10 warmest. |
| 4 | Record Wildfire Activity | Throughout 2012 | Large wildfires dominated the landscape during 2012. Some of the largest fires occurred in New Mexico (largest in state history), Colorado (most destructive and 2nd largest in state history) and in Oregon (largest since the 1860s). More than 3.64 million acres burned during August, which is the most on record for the month. More than 9.2 million acres were consumed in 2012, which is the third highest acreage burned since 2000. |
| 5 | Multi-State Derecho | June/July 2012 | A line of strong storms produced dangerously strong winds (<i>derecho</i>) along a path from the Great Lakes to the East Coast. Power along the Mid-Atlantic and Northeast was cut to 250,000 customers for several days due to downed trees. |
| 6 | March 2nd- 3rd Severe Weather Outbreak | March 2012 | Warmer than average conditions created an environment favorable for severe thunderstorms and tornadoes. According to NOAA, 154 tornadoes occurred during March. The March 2-3 outbreak across the Ohio Valley and Southeast caused 41 fatalities in addition to significant damage. The worst of the tornado activity occurred in southern Indiana and Ohio and northern Kentucky. |
| 7 | Alaska Cold Winter/Snow Record | Winter 2011-12 | Several Alaskan locations had their coldest January on record. The monthly average temperature at Bettles, AK was -35.6°F. The statewide average January temperature was record cold, 14°F below average. Record snow (134.5 inches) fell in Anchorage during the snow season, breaking the previous record set in 1954-55. |
| 8 | Near-Record Low Great Lakes Levels | By End of 2012 | Record warm temperatures throughout 2012 combined with low precipitation created high evaporation rates across the Great Lakes. Lakes Michigan and Huron are within inches of the all-time record low lake levels set back in 1964. Low lake levels have a significant impact on recreational and commercial boating as well as tourism. |
| 9 | CONUS Snow Cover | Winter/Spring 2011-12 | The CONUS winter and spring snow cover extent was the 3rd smallest on record for both seasons. The southern and central Rockies and Sierra Nevada Mountains had much below average snowpack at the end of the 2011-2012 winter season. |
| 10 | Hurricane Isaac | August 2012 | Hurricane Isaac made landfall near the mouth of the Mississippi River on August 28 as a Category 1 Hurricane. Isaac's large size and slow motion caused a storm surge of 10 feet and brought torrential rainfall. Isaac also provided some drought relief to the Lower Mississippi and Ohio Valleys. More than 20 inches of rainfall was observed in New Orleans. |

* Recent reanalysis of the Long Island Hurricane of 1938 pressure record indicates that it holds the lowest pressure recorded along the Northeast coast, making Sandy second lowest.

For more information go to: www.ncdc.noaa.gov/special-reports/top-ten.php?list=national&year=2012



NOAA's National Climatic Data Center
Asheville, North Carolina

Protecting the past... Revealing the future

2012

Top Ten Global Weather/Climate Events

The following table lists the top ten **global** weather/climate events of 2012. These events are listed according to their overall rank, as voted on by a panel of weather/climate experts. The voters considered factors such as the scope and unusualness of the event, its immediate human and economic impact, and whether it is emblematic of climate trends or variability.

| Rank | Event | When Occurred | Event Description |
|------|---|-------------------------------|---|
| 1 |  Arctic Sea Ice Extent | Late Spring Through Fall 2012 | June to October: monthly average sea ice extent was either record or second smallest for its respective month. Arctic sea ice reached a new record low minimum extent on September 16, at 1.32 million square miles. The total seasonal melt amount of 4.57 million square miles was the largest annual sea ice loss on record, equivalent in size to the entire United States and Mexico combined. |
| 2 |  Agricultural Drought | Summer 2012 | Major drought gripped important agricultural regions across the globe during the summer of 2012. These regions included eastern Russia, Ukraine, Kazakhstan, and central North America. Wheat, corn, and soybean crops were among those heavily impacted; global food prices rose by 10 percent during July. The U.S. drought resulted in a multi-billion dollar agricultural disaster—the most severe and extensive impact since 1988. |
| 3 |  Hurricane Sandy | October 2012 | Sandy, the second most powerful North Atlantic hurricane (exceeding 140 terajoules) since 1851, resulted in at least 185 deaths across the Caribbean, United States, and Canada, bringing record storm surge and low pressure in some locations. Damages from this storm are expected to be in the tens of billions and one of the costliest storms in U.S. history. |
| 4 |  Super Typhoon Bopha/Pablo | December 2012 | Tropical cyclones rarely hit the southern Philippines; however, a Category 5 super typhoon struck southern Mindanao Island in early December, killing more than 900 residents and leaving more than 600 missing. This is the same region where Tropical Storm Washi hit in December 2011, killing more than 1300 people. |
| 5 |  Northern Hemisphere Warmth | Throughout 2012 | Throughout 2012 land areas in the Northern Hemisphere reached record warm monthly values for four consecutive months (April - July). Much of the anomalous warmth occurred in North America: Canada was 3rd warmest on record for the period January-September; United States: record warm for the year. Many European countries and Russia had warm summer temperatures. |
| 6 |  Greenland Ice Sheet & Glacier Calving | July 2012 | The percentage of the ice sheet experiencing melt increased from 40% to 97% from July 8 to 12, the greatest melt since 1889, according to ice core records. An iceberg twice the size of Manhattan calved from the Petermann Glacier on July 16; the second break since 2010. The glacier's margins have now retreated to the farthest point in the last 150 years. |
| 7 |  Eurasian Continent Cold Wave | January/February 2012 | Worst cold snap in at least 26 years in central and eastern Europe. Northeast China through eastern Inner Mongolia recorded minimum temperatures ranging between -30°C to -40°C. More than 650 people died as a direct result of frigid weather across a dozen countries. Parts of the Danube River froze over for the first time in 25 years. |
| 8 |  Northeastern Brazil Drought | First Half of 2012 | Lack of rain during the first half of 2012 led to the worst drought in five decades and resulted in "water wars," which provoked extreme behavior and led to fatalities. An estimated 4 million people were affected. Water supplies were threatened in 1100 municipalities. |
| 9 |  African Floods | July – October 2012 | Over 3 million people were affected across 15 countries, most notably Nigeria, Niger, Senegal, and Chad. More than 360 people were killed across Nigeria alone and more than 2 million were displaced. The floods destroyed farmlands, homes, and schools, and caused outbreaks of cholera and other diseases. |
| 10 |  Antarctic Sea Ice Extent | September 2012 | Antarctic sea ice reached an all-time record maximum extent with an average extent of 7.49 million square miles, slightly larger than the previous record large September extent in 2006. By September 26, the Antarctic sea ice had expanded to a new record maximum extent of 7.51 million square miles. |



For more information go to:

www.ncdc.noaa.gov/special-reports/top-ten.php?list=global&year=2012