

# Interesting United States Weather Facts and Extremes

## Top 10 cities with most weather variety

Based on temperature variation, precipitation, wind, severe weather

1. Springfield, Missouri
2. Topeka, Kansas
3. Rochester, Minnesota
4. Wichita, Kansas
5. Columbia, Missouri
6. Des Moines, Iowa
7. Lincoln, Nebraska
8. Madison, Wisconsin
9. Concordia, Kansas
10. Sioux City, Iowa

## Top 10 cities with least weather variety

Based on temperature variation, precipitation, wind, severe weather

1. San Francisco, California
2. San Diego, California
3. Los Angeles, California
4. Santa Barbara, California
5. Eureka, California
6. Long Beach, California
7. Honolulu, Hawaii
8. Santa Maria, California
9. San Luis Obispo, California
10. Kahului, Hawaii

### Top 10 hail prone cities

Based on frequency and severity of hail

1. Tulsa, Oklahoma
2. Amarillo, Texas
3. Oklahoma City, Oklahoma
4. Wichita, Kansas
5. Dallas / Fort Worth, Texas
6. Arlington, Texas
7. Denver, Colorado
8. Colorado Springs, Colorado
9. Shreveport, Louisiana
10. Kansas City, Missouri / Kansas

### Top 10 Tropical storm / Hurricane prone cities

Avg # of years with no storm. Totals based on data from 1871- 2007, hitting within 60 miles of city

- |                                  |      |
|----------------------------------|------|
| 1. Cape Hatteras, North Carolina | 2.49 |
| 2. Delray Beach, Florida         | 2.54 |
| 3. Hollywood, Florida            | 2.58 |
| 4. Deerfield Beach, Florida      | 2.58 |
| 5. Boca Raton, Florida           | 2.58 |
| 6. Florida City, Florida         | 2.63 |
| 7. Grand Isle, Louisiana         | 2.63 |
| 8. Ft. Pierce, Florida           | 2.69 |
| 9. Miami, Florida                | 2.69 |
| 10. Ft. Lauderdale, Florida      | 2.69 |

### Top 10 Tornado states

Avg number of tornadoes per 10,000 square miles, occurring from 1953-2004

1. Florida	9.4
2. Oklahoma	8.2
3. Kansas	6.7
4. Iowa	6.6
5. Illinois	6.2
6. Indiana	6.1
7. Mississippi	5.7
8. Maryland	5.7
9. Louisiana	5.6
10. Texas	5.2

### Top 10 Thunderstorm cities

Avg annual number of thunderstorms

1. Fort Myers, Florida	89
2. Tampa, Florida	87
3. Tallahassee, Florida	83
4. Gainesville, Florida	81
5. Orlando, Florida	80
6. Mobile, Alabama	79
7. W. Palm Beach, Florida	79
8. Lake Charles, Louisiana	76
9. Daytona Beach, Florida	75
10. Vero Beach, Florida	75

### Top 10 Tornado prone cities

Ranked by tornadoes per 1,000 square miles

1. Oklahoma City, Oklahoma

2. Tulsa, Oklahoma

3. Dallas - Ft. Worth, Texas

4. Wichita, Kansas

5. Springfield, Missouri

6. Kansas City, Kansas / Missouri

7. Ft. Smith, Arkansas

8. Little Rock, Arkansas

9. Jackson, Mississippi

10. Birmingham, Alabama

### Top 10 Earthquake prone states

# of earthquakes in the last 30 years  
centered in the state

1. Alaska

2. California

3. Hawaii

4. Nevada

5. Washington

6. Idaho

7. Wyoming

8. Montana

9. Utah

10. Oregon

**Top 10 counties with highest # of Tornado Watches per year**

Data period is from 1999 - 2008

County	Location in State	#
1. Osage, OK	Northeast	22.9
2. Garfield, OK	North	20.5
3. Grant, OK	North	20.4
4. Major, OK	Northwest	20.2
5. Cowley, KS	South	20.0
6. Kay, OK	North	19.9
7. Lincoln, NE	Southwest	19.8
8. Greenwood, KS	Southeast	19.7
9. Alfalfa, OK	North	19.7
10 Sumner, KS	South	19.6

**Top 10 counties with highest # of Severe Thunderstorm Watches per year**

Data period is from 1999 - 2008

County	Location in State	#
1. Washington, AL	Southwest	16.2
2. Covington, AL	South	16.0
3. Baldwin, AL	Southwest	15.7
4. Mobile, AL	Southwest	15.7
5. Clarke, AL	Southwest	15.6
6. Escambia, AL	South	15.6
7. Greene, MS	Southeast	15.6
8. Monroe, AL	South	15.5
9. Jones, MS	South	15.5
10. Perry, MS	Southeast	15.5

### **Top 10 Lightning prone states**

Ranked by density of strikes, 1996-2000

1. Florida
2. Louisiana
3. Mississippi
4. Alabama
5. Georgia
6. South Carolina
7. Tennessee
8. Kentucky
9. Illinois
10. Oklahoma

### **Top 10 safest Lightning states**

Ranked by density of strikes, 1996-2000

1. Washington
2. Oregon
3. California
4. Idaho
5. Maine
6. Nevada
7. Montana
8. New Hampshire
9. Massachusetts
10. Wyoming

### 10 all-time hottest temperatures

Obtained from state temperature records, NCDC

1. Death Valley, California	134
2. Lake Havasu, Arizona	128
3. Bullhead City, Arizona	126
4. Thermal, California	126
5. Laughlin, Nevada	125
6. Yuma, California	124
7. Blythe, California	123
8. Chandler, Arizona	123
9. Palm Springs, California	123
10. Phoenix, Arizona	122

### 10 all-time coldest temperatures

Obtained from state temperature records, NCDC

1. Prospect Creek, Alaska	-80
2. Rogers Pass, Montana	-70
3. Peters Sink, Utah	-69
4. Riverside, Wyoming	-66
5. Maybell, Colorado	-61
6. Tower, Minnesota	-60
7. Parshall, North Dakota	-60
8. Island Park Dam, Idaho	-60
9. McIntosh, South Dakota	-58
10. Couderay, Wisconsin	-55

### 10 hottest cities

Average annual temperature, F  
[entire 50 state rank](#)

1. Key West, Florida	77.7
2. Miami, Florida	75.6
3. W Palm Beach, Florida	74.6
4. Ft. Myers, Florida	73.9
5. Yuma, Arizona	73.9
6. Brownsville, Texas	73.6
7. Orlando, Florida	72.4
8. Vero Beach, Florida	72.4
9. Corpus Christi, Texas	72.1
10. Tampa, Florida	72.0

### 10 coldest cities

Average annual temperature, F  
(lower 48 states)  
[entire 50 state rank](#)

1. International Falls, MN	36.4
2. Duluth, Minnesota	38.2
3. Caribou, Maine	38.9
4. Marquette, Michigan	39.2
5. Sault Ste Marie, Michigan	39.7
6. Fargo, North Dakota	40.5
7. Williston, North Dakota	40.8
8. Alamosa, Colorado	41.2
9. Bismarck, North Dakota	41.3
10. St. Cloud, Minnesota	41.4

**10 hottest US states**  
Mean annual temperature, F  
entire 50 state rank

1. Hawaii	71.61
2. Florida	70.73
3. Louisiana	66.39
4. Texas	64.83
5. Georgia	63.51
6. Mississippi	63.35
7. Alabama	62.77
8. South Carolina	62.42
9. Arkansas	60.42
10. Arizona	60.31

**10 coldest US states**  
Mean annual temperature, F  
entire 50 state rank

1. Alaska	32.13
2. North Dakota	40.43
3. Maine	40.97
4. Minnesota	41.16
5. Wyoming	41.98
6. Montana	42.74
7. Vermont	42.88
8. Wisconsin	43.12
9. New Hampshire	43.80
10. Idaho	44.39

### 10 driest cities

Avg annual precipitation in inches

[entire 50 state rank](#)

1. Yuma, Arizona	2.65
2. Las Vegas, Nevada	4.19
3. Bishop, California	5.61
4. Bakersfield, California	5.72
5. Phoenix, Arizona	7.11
6. Alamosa, Colorado	7.13
7. Reno, Nevada	7.49
8. Winslow, Arizona	7.64
9. El Paso, Texas	7.82
10. Winnemucca, Nevada	7.82

### 10 wettest cities

Avg annual precipitation in inches

[entire 50 state rank](#)

1. Hilo, Hawaii	128.00
2. Quillayute, Washington	104.50
3. Astoria, Oregon	69.60
4. Blue Canyon, California	67.87
5. Mobile, Alabama	64.64
6. Tallahassee, Florida	64.59
7. Pensacola, Florida	61.16
8. New Orleans, Louisiana	50.72
9. W Palm Beach, Florida	59.72
10. Miami, Florida	59.55

### 10 driest states

Avg annual precipitation in inches

entire 50 state rank

1. Nevada	9.54
2. Utah	12.26
3. Wyoming	12.97
4. Arizona	13.61
5. New Mexico	14.63
6. Montana	15.37
7. Colorado	15.97
8. North Dakota	17.82
9. Idaho	18.96
10. South Dakota	20.14

### 10 wettest states

Avg annual precipitation in inches

entire 50 state rank

1. Hawaii	63.70
2. Louisiana	60.09
3. Mississippi	59.23
4. Alabama	58.28
5. Florida	54.57
6. Tennessee	54.22
7. Arkansas	50.78
8. Georgia	50.72
9. North Carolina	50.45
10. Connecticut	50.39

### 10 snowiest cities

Avg annual precipitation in inches  
(Lower 48 states)

1. Blue Canyon, California	240.8
2. Marquette, Michigan	144.5
3. Sault Ste Marie, Michigan	116.7
4. Syracuse, New York	111.6
5. Caribou, Maine	110.4
6. Mount Shasta, California	104.9
7. Lander, Wyoming	102.5
8. Flagstaff, Arizona	99.9
9. Sexton Summit, Oregon	97.8
10. Muskegon, Michigan	97.0

### 10 windiest cities

Avg annual wind speed in mph

1. Blue Hill Observatory, Massachusetts	15.4
2. Dodge City, Kansas	14.0
3. Amarillo, Texas	13.5
4. Rochester, Minnesota	13.1
5. Casper, Wyoming	12.9
6. Cheyenne, Wyoming	12.9
7. Great Falls, Montana	12.7
8. Goodland, Kansas	12.6
9. Boston, Massachusetts	12.5
10. Lubbock, Texas	12.4

### 10 sunniest cities

Annual percent of possible sunshine

1. Yuma, Arizona	90%
2. Las Vegas, Nevada	85%
3. Phoenix, Arizona	85%
4. Tucson, Arizona	85%
5. El Paso, Texas	83%
6. Flagstaff, Arizona	79%
7. Fresno, California	79%
8. Reno, Nevada	79%
9. Sacramento, California	78%
10. Albuquerque, N.M.	76%

### 10 cloudiest cities

Avg number of cloudy days per year

1. Astoria, Oregon	240
2. Quillayute, Washington	240
3. Olympia, Washington	229
4. Seattle, Washington	227
5. Portland, Oregon	223
6. Kalispell, Montana	213
7. Binghamton, New York	212
8. Beckley, West Virginia	211
9. Elkins, West Virginia	211
10. Eugene, Oregon	209

### 10 most humid cities

Avg relative humidity in %

1. Quillayute, Washington	83.0
2. Olympia, Washington	78.0
3. Port Arthur, Texas	77.5
4. Lake Charles, Louisiana	77.0
5. Apalachicola, Florida	76.5
6. Gainesville, Florida	76.5
7. Corpus Christi, Texas	76.0
8. Eugene, Oregon	75.5
9. New Orleans, Louisiana	75.5
10. Houston, Texas	75.0

### 10 least humid cities

Avg relative humidity in %

1. Las Vegas, Nevada	30.5
2. Phoenix, Arizona	37.0
3. Yuma, Arizona	38.0
4. Tucson, Arizona	39.0
5. El Paso, Texas	42.5
6. Albuquerque, New Mexico	44.5
7. Winslow, Arizona	46.0
8. Grand Junction, Colorado	48.0
9. Winnemucca, Nevada	48.5
10. Reno, Nevada	50.5

### 10 rainiest cities

Number of days per year with rain

1. Hilo, Hawaii	277
2. Quillayute, Washington	210
3. Astoria, Oregon	191
4. Elkins, West Virginia	171
5. Syracuse, New York	171
6. Buffalo, New York	169
7. Marquette, Michigan	168
8. Sault Ste Marie, Michigan	166
9. Erie, Pennsylvania	165
10. Binghamton, New York	162

### 10 least rainiest cities

Number of days per year with rain

1. Yuma, Arizona	17
2. Las Vegas, Nevada	26
3. Bishop, California	29
4. Santa Barbara, California	30
5. Long Beach, California	32
6. Los Angeles, California	35
7. Great Falls, Montana	35
8. Phoenix, Arizona	36
9. Bakersfield, California	37
10. San Diego, California	42

## Largest annual temperature variation

Change in average temperature between summer and winter

1. Fairbanks, Alaska	90.8
2. Bettles, Alaska	90.0
3. International Falls, MN	88.8
4. Fargo, North Dakota	87.0
5. Williston, North Dakota	86.6
6. Aberdeen, South Dakota	86.5
7. McGrath, Alaska	86.2
8. Bismarck, North Dakota	86.1
9. Alamosa, Colorado	85.9
10. St. Cloud, Minnesota	85.0

## 10 most uncomfortable cities

Avg combination of summer heat and humidity

1. Phoenix, Arizona
2. Corpus Christi, Texas
3. San Antonio, Texas
4. Dallas, Texas
5. West Palm Beach, Florida
6. Miami, Florida
7. Waco, Texas
8. Houston, Texas
9. Montgomery, Alabama
10. New Orleans, Louisiana

### **Top 10 clean air cities**

Based on long-term particle pollution

1. Cheyenne, Wyoming
2. Santa Fe, New Mexico
3. Honolulu, Hawaii
4. Anchorage, Alaska
5. Great Falls, Montana
6. Tucson, Arizona
7. Amarillo, Texas
8. Albuquerque, New Mexico
9. Flagstaff, Arizona
10. Bismarck, North Dakota

### **Top 10 dirty air cities**

Based on long-term particle pollution

1. Phoenix-Mesa-Scottsdale, AZ
2. Bakersfield, California
3. Los Angeles-Long Beach-Riverside, CA
4. Visalia-Porterville, California
5. Pittsburg-New Castle, Pennsylvania
6. Fresno-Madera, California
7. Birmingham-Hoover-Cullman, Alabama
8. Hanford-Corcoran, California
9. Cincinnati-Middletown-Wilmington, OH-KY-IN
10. St. Louis-St Charles-Farmington, Missouri, Illinois

### Best cities for allergies

Based on pollen counts from 1999-2002

1. Grand Rapids, Michigan
2. Milwaukee, Wisconsin
3. Seattle, Washington
4. San Francisco, California
5. Minneapolis, Minnesota
6. Chicago, Illinois
7. Syracuse, New York
8. Salt Lake City, Utah
9. Los Angeles, California
10. Denver, Colorado

### Worst cities for allergies

Based on pollen counts from 1999-2002

1. Kansas City, Mo/Ks
2. Louisville, Kentucky
3. Tampa/St. Pete, Florida
4. Tulsa, Oklahoma
5. Atlanta, Georgia
6. Austin, Texas
7. St. Louis, Missouri
8. Sacramento, California
9. Orlando, Florida
10. Indianapolis, Indiana

- **Fastest warming**

*12 hour warm-up:* 83 degrees. From -33 in the morning to 50 by late afternoon in Granville, ND on February 21, 1918

*15 minute warm-up:* 42 degrees. From -5 to 37 degrees in Fort Assiniboine, Montana on January 19, 1893

*7 minute warm-up:* 34 degrees in Kipp, Montana in 1896

- **Fastest Cooling**

*24 hour chill:* 100 degrees. From 44 to -54 below zero in Browning, Montana on January 23-24, 1916.

*12 hour chill:* 84 degrees. From 63 to -21 below zero in Fairfield, Montana on December 24, 1924.

*2 hour chill:* 62 degrees. From 49 at 6:00am to -13 at 8:00am in Rapid City, South Dakota on January 10, 1911

*15 minute chill:* 47 degrees. From 55 at 7:00am to 8 at 7:15am in Rapid City, South Dakota on January 10, 1911

### Interesting U.S. weather facts

- The Heat Wave during the summer of 2011 was record-breaking across the **United States**. At it's height during the second half of July, 132 million Americans were under a Heat Alert. For the month through July 23rd, 1,966 record daily high temperatures were set across the country. Due to extremely high humidity levels, overnight temperatures didn't drop as normal and as a result an amazing 4,376 highest minimum temperature records were tied or broken. On July 23rd at the Minneapolis-St Paul airport, the temperature reached 95 F degrees and combined with a dew point of 82 F, the heat index value reached a sweltering 119 F degrees
- On February 12, 2010, **49** of the **50 U.S. States** had snow on the ground, with the lone exception being Hawaii. Due to El Nino and a combination of unusual patterns, over two-thirds of the country had snow on the ground. Warmer locations such as the **Florida Panhandle, Dallas and Atlanta** all received a rare dose of snow. From February, 6 - February 12, 2010, 1,180 new snowfall records were set across the country.
- On the morning of February 10, 2011, **Oklahoma** broke its all-time record low temperature. Calm winds and clear skies caused the city of Nowata in northeastern Oklahoma to drop to an amazingly low temperature of 31 degrees below zero. The average low temperature for Nowata was 27 degrees, making this record low temperature 58 degrees below the normal low for the date. In contrast, the low temperature at the South Pole on the same date was only 23 degrees below zero.
- Through August 2007, the **United States** experienced its hottest year ever. During the month of August, more than 8,000 new heat maximum and minimum records were set or tied across the country.
- In **Hawaii**, where surface temperatures are always above 50F, there is snow. Between 1 and 2 feet of snow falls each year in the mountains above 5,000 feet.
- Clear skies, summer humidity as low as 4% and higher elevations in **New Mexico** produce a surprisingly low mean annual state temperature. **Delaware** (55.27 F), **Maryland** (54.22 F) and **Virginia** (55.11F) all possess a warmer average annual temperature than New Mexico (53.44F)
- The coldest football game ever played was the NFL Championship Game on December 31, 1967 in **Green Bay, Wisconsin** between the Green Bay Packers and Dallas Cowboys when the temperature fell to -13F degrees. The 2007 NFC Championship game in Green Bay between the New York Giants and Green Bay Packers was the third coldest game in history with a temperature of -1F and wind chill of -23F.
- The temperature in **Tampa Bay** and **Miami, Florida** has never exceeded 100 degrees, while in **Bismarck, North Dakota** the record temperature for each of the 5 summer months of May through September is 102 degrees or higher. Although North Dakota is the 2nd coldest state, **Bismarck's** all-time high is an amazing 114 degrees, set in July, 1936.
- The greatest **United States** cold wave of the 20th century occurred during January, 1977. Snow was reported in **Miami, Florida** and temperatures across the northern U.S. from **Iowa to Pennsylvania** didn't rise above freezing for the entire month.

- Although **Hawaii** is the wettest state in the U.S., the city of **Honolulu** does not receive a high amount of rainfall, receiving only 18.29" annually. Cities thought of as "Dry cities" actually receive more rainfall than **Honolulu - Flagstaff, Arizona (22.91")**, **Amarillo, Texas (19.71")** and **Fargo, North Dakota (21.19")**)
- The longest rain-free period in the **United States** was 767 days (2 years, 37 days), from October 3, 1912 to November 8, 1914 at **Bagdad, California**.
- A world record rainfall occurred at **Holt, Missouri** on June 22, 1947 when it rained 12 inches in just 42 minutes. This averages to over 1/4 of an inch of rainfall per minute. On July 4th, 1956 In **Unionville, Maryland** 1.23 inches of rain fell in 1 minute.
- **Phoenix, Arizona** is one of the hottest U.S. summertime cities with an average July high temperature of 104 degrees. In contrast, **Flagstaff, Arizona**, located only 145 miles away, is the eighth snowiest city in the **United States** with an average annual snowfall of 99.9 inches.
- The average annual temperatures of **New York, St. Louis and San Francisco** differ by only 1.8F degrees.
- Which is the least rainy city - **Seattle, New York City or Miami**? Although on average **Seattle** is cloudy 227 days a year, it only receives 39 inches of rain per year, compared to **New York City** (42 inches) and **Miami** (60 inches)
- Is **Chicago** really "The Windy City?" Of the 262 major weather reporting stations in the **United States**, 27% or 72 stations average higher annual wind speeds than **Chicago**, which averages 10.3 mph. For example, **New York City's** annual wind speed is 12.2 mph. The humorous explanation of the city's previous politicians being long-winded may be a more appropriate reason for the nickname.
- Due to **Florida's** proximity to the equator, the state receives more than a hundred times the UV exposure that Maine does.
- **Cheyenne, Wyoming** averages the most hail storms in the United States per year with 10 and **Tulsa, Oklahoma** experiences the most severe hail storms annually.
- The **United States** leads the world with an average of over 1,000 reported tornadoes each year. A distant second is **Canada** with an average of approximately 100 reported tornadoes.
- **Kansas** has received the most F5 tornadoes since 1880. **Oklahoma** encounters the highest number of significant and violent tornadoes per square mile.
- [Extreme weather](#) across the world occurring within the past three hours and [weather records](#) set today
- Interesting [European](#) and [Asian](#) weather facts and extremes, and [U.S.State climates](#), [Top 10 Texas](#) and [California](#) climate extremes

**Data sources:** Charts 1-2 [Weatherpages](#), Chart 3 [Riskmeter](#), Chart 4 [Hurricanecity](#), Charts 5-8 [National Climatic Data Center](#), Charts 9-10 [Storm Prediction Center](#), Charts 11-12 [NOAA](#), Charts 13-32 [National Climatic Data Center](#), Charts 33-34 [National Lung Association](#), Charts 35-36 [Bestplaces](#)

QUESTIONS / SUGGESTIONS - [Contact](#) Dan Baker