

September 2006



Feeling the Heat

**Global Warming and Rising
Temperatures in the United States**

Environment Texas
Research & Policy Center

Feeling the Heat

Global Warming and Rising Temperatures in the United States

September 2006



ACKNOWLEDGMENTS

Written by Emily Figdor and Alison Cassady of the Environment Texas Research & Policy Center.

© 2006, Environment Texas Research & Policy Center

The authors wish to thank Brenda Ekwurzel of the Union of Concerned Scientists for her review of this report.

The opinions expressed are those of the authors and do not necessarily reflect the views of our funders or those who provided editorial review. Any factual errors are strictly the responsibility of the authors.

Cover photo: © darac - FOTOLIA. Cover and report design by Alison Cassady.

For additional copies of this report, please visit our website or send \$20 to:

Environment Texas Research & Policy Center
1009 West Sixth Street, Suite 208
Austin, TX 78703
(512) 479-0388
www.environmenttexas.org

TABLE OF CONTENTS

Executive Summary.....	4
Background: Rising Global Temperatures.....	7
Human Activities Are Causing Global Warming.....	10
2006: Record Heat.....	12
Report Findings: Temperatures Rising.....	16
Recommendations.....	24
Methodology.....	26
Appendices	
Appendix A. Average Temperatures (2000-2005) Compared with Historical Normals (1971-2000): By Weather Station.....	27
Appendix B. Average Temperatures (January-June 2006) Compared with Historical Normals (January-June 1971-2000): By Weather Station.....	33
Appendix C. Average Minimum Temperatures (2000-2005) Compared with Historical Normals (1971-2000): By Weather Station.....	39
Appendix D. Average Minimum Temperatures (January-June 2006) Compared with Historical Normals (January-June 1971-2000): By Weather Station.....	45
Appendix E. Average Maximum Temperatures (2000-2005) Compared with Historical Normals (1971-2000): By Weather Station.....	51
Appendix F. Average Maximum Temperatures (January-June 2006) Compared with Historical Normals (January-June 1971-2000): By Weather Station.....	57
End Notes.....	63

EXECUTIVE SUMMARY

In the summer of 2006, Americans from coast to coast experienced a sweltering heat wave that broke more than 2,300 daily temperature records in July alone. This record warmth, however, was not an anomaly; rather, it is indicative of a broader trend toward increasing temperatures and extreme weather resulting from global warming. To examine recent trends in temperature in cities and towns across the United States, this report analyzes 2000-2006 temperature data from 255 major weather stations and finds that temperatures were above normal almost everywhere during the period.

Average temperatures worldwide have risen by 0.8° C (1.44° F) in the past century and now are increasing at a rate of about 0.2° C (0.36° F) per decade. The 10 warmest years of the global record have all occurred since 1990, and 2005 was the warmest year to date.

The consensus view of the scientific community is that most of the global warming that has occurred is due to human activities, particularly the burning of fossil fuels. Fossil fuel combustion releases carbon dioxide, which traps radiation emitted from the earth's surface that normally would escape back to space. Since 1750, the concentration of carbon dioxide in the atmosphere has increased by 35%.

The United States emits far more carbon dioxide than any other nation in the world. Emissions of carbon dioxide in the United States – primarily from electric power plants and passenger vehicles – have nearly doubled

since 1960 and are projected to increase dramatically in the years to come.

In the continental United States, the first seven months of 2006 were the warmest January-July of any year on record. The average temperature was 55.3° F, or 3.2° F above the 20th century average. Every state in the continental United States experienced warmer-than-average temperatures; in most states, temperatures were much warmer than the 20th century average. For instance, according to the National Climatic Data Center:

- Five states experienced their warmest January-July on record (Kansas, Missouri, Oklahoma, South Dakota, and Texas).
- Eleven states experienced their second warmest January-July on record (Illinois, Maine, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, North Dakota, Vermont, and Wyoming).
- The average temperature for the first seven months of 2006 ranged between 4.0° F and 6.6° F above the 20th century average in Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, Wisconsin, and Wyoming.

To examine how recent U.S. temperature patterns compare with temperatures over the last 30 years, we analyzed temperature data from “First Order” weather stations for the years 2000-2005 and the first six months of 2006. First Order stations are those staffed in whole or in part by National Weather Service personnel and therefore provide the

highest quality data. The 255 stations are located in all 50 states and Washington, DC. We compared this recent data to historical, or “normal,” data from the stations for the three decades spanning 1971-2000.

Overall, we found that temperatures were above normal across the country, indicating pervasive warming. Specifically:

Average Temperatures Rising

- Between 2000 and 2005, the average temperature was above normal at 95% of the locations we studied. Alaska experienced the most warming on average, with Talkeetna reporting average temperatures 4.6° F above normal. Outside of Alaska, weather stations in Colorado, Michigan, Montana, Nevada and Wyoming reported the highest above-normal temperatures for the period.
- During the first six months of 2006, the average temperature was above normal at 91% of the locations. The average temperature was at least 3° F above normal in 43% of the locations and at least 5° F above normal in 12 of the locations. Temperatures were particularly warm in Texas and the Great Plains states. The average temperature was nearly 5.9° F above normal, the highest in the country, in Kansas City, Missouri and 5.6° F above normal in Wichita Falls, Texas.

Nights Getting Warmer

- Between 2000 and 2005, the average minimum (nighttime low) temperature was above normal at 92% of the locations. The average minimum temperature in Reno, Nevada was 5.2° F

above normal, the highest in the United States. Albuquerque, New Mexico recorded average minimum temperatures of more than 3° F above normal.

- During the first six months of 2006, the average minimum (nighttime low) temperature was above normal at 87% of the stations. The average minimum temperature was at least 3° F above normal in 28% of the locations and at least 5° F above normal in nine of these locations. Nighttime temperatures were particularly mild on average in the upper Midwest, with temperatures soaring to 6.7° F above normal in Sioux Falls, South Dakota and almost 6° F above normal in Minneapolis-St. Paul, Duluth, Rochester, and St. Cloud, Minnesota.

Days Getting Warmer

- Between 2000 and 2005, the average maximum (daytime high) temperature was above normal at 80% of the locations. Alaska experienced the most daytime warming. Locations outside of Alaska experiencing the highest above-normal average maximum temperatures include Goodland, Kansas; Alamosa and Pueblo, Colorado; Brownsville, Texas; and Rapid City, South Dakota.
- During the first six months of 2006, the average maximum temperature was above normal at 87% of the locations. The average maximum temperature was at least 3° F above normal in 39% of the locations and at least 5° F above normal in 28 of these locations. Warmer-than-normal days hit Texas and the Great Plains the most, averaging more than 6° F above normal in Dodge City, Concordia, and Wichita, Kansas as well as Grand Island, Nebraska and Oklahoma City, Oklahoma.

To curb global warming and protect future generations, the United States should adopt a series of public policies designed to quickly and significantly reduce emissions of global warming pollutants from power plants, cars and trucks, and manufacturing facilities.

Cap global warming emissions. The United States should establish mandatory, science-based limits on carbon dioxide and other global warming pollutants that reduce emissions from today's levels within 10 years, by 15-20% by 2020, and by 80% by 2050.

Adopt complementary clean energy policies to reduce global warming emissions. To achieve these reductions, the United States should adopt strong policies to improve the efficiency with which we use fossil fuels and increase our use of clean, renewable energy.

Encourage action at the state level. Federal action to reduce global warming pollution should promote innovative approaches at the state level and not impede individual states or groups of states from pursuing policies that go above and beyond the commitments made by the federal government.

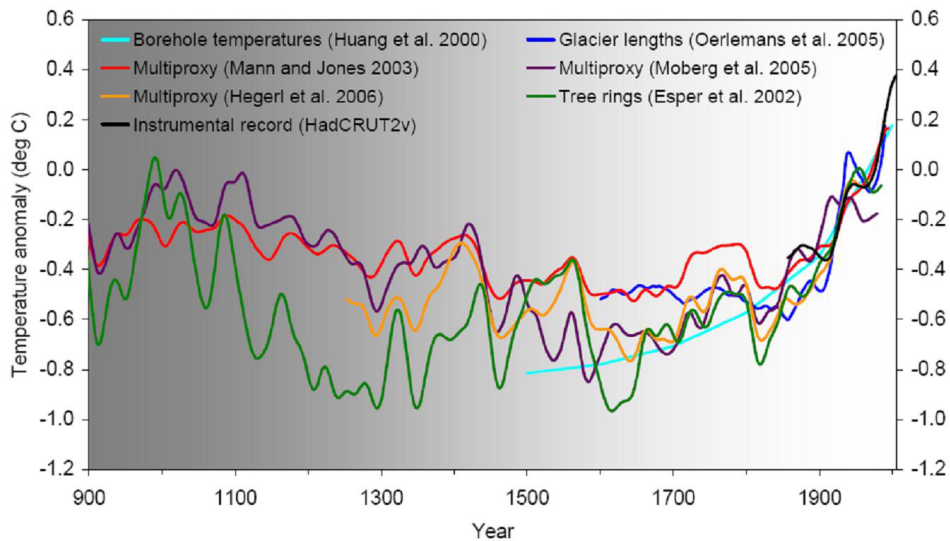
BACKGROUND: RISING GLOBAL TEMPERATURES

Global warming is one of the most profound issues of our time. Sea levels are on the rise, ice and snow cover are declining, and storms are becoming more powerful. These changes are already affecting our environment, our economy, and our lives and are harbingers of the dramatic climate shifts that await us if global warming pollution continues unabated.

Global warming has raised global temperatures 0.8°C (1.44°F) in the past century and 0.6°C (1.08°F) in the past three

decades, reflecting stronger warming since the mid-1970s.¹ Figure A shows temperature trends in the Northern Hemisphere for the past 1,100 years, with a relatively recent upward spike. Temperatures in the past 150 years are based on measurements; earlier temperatures are derived from proxy measures such as tree rings, corals, and ice cores. The National Academies of Science recently concluded that it is highly likely that the last few decades of the 20th century were the warmest in at least the last 400 years.²

Figure A. Northern Hemisphere Temperature Trends Over the Last 1,100 Years³



Global warming has accelerated since the mid-1970s. In 2006, scientists at the National Aeronautics and Space Administration (NASA) reported that, since 1975, temperatures have been increasing at a rate of about 0.2°C (0.36°F) per decade.⁴

The 10 warmest years of the global record have all occurred since 1990, and 2005 was the warmest year to date.⁵

The rise in global average temperatures has resulted in part from daily minimum

(nighttime low) temperatures increasing at a faster rate than daily maximum (daytime high) temperatures. A 2006 study found a significant decrease in the annual occurrence of cold nights from 1951-2003 and a significant increase in the annual occurrence of warm nights for more than 70% of land area surveyed worldwide, implying “a positive shift in the distribution of daily minimum temperatures throughout the globe.”⁶ Daily maximum temperature indices showed similar changes but with smaller magnitudes.⁷ These findings are consistent with previous studies showing that minimum temperatures have increased at about twice the rate of maximum temperatures, excluding the effects of urban warming (see sidebar).⁸

This warming trend cannot be explained entirely by natural variables – such as solar cycles or volcanic eruptions – but it does correspond to models of climate change based on natural and human influence.⁹

Other early signs of global warming are beginning to appear across the United States and throughout the world.

Melting Ice

The rise in global temperatures has resulted in thinning ice and decreasing snow cover. Over the last three decades, the volume and extent of ice cover in the Arctic has been declining rapidly, leading to the possibility that the Arctic could be ice-free during the summer by the end of this century.¹⁰ Mountain glaciers around the world have been retreating, and since the late 1960s, Northern Hemisphere snow cover has decreased by 10%.¹¹ Mountain snowpack – which is a particularly important source of water in much of the western United States – has declined, with snowpack in the Colorado

River basin below average in 11 of the last 16 years.¹²

In some parts of the world, the decrease in ice and snow cover appears to be accelerating. One recent study, for example, found that Greenland’s glaciers are shedding twice as much ice into the ocean as they did just five years ago.¹³

Is Urbanization Causing the Rise in Temperatures?

Global warming skeptics have argued that urban “heat islands” – where the air temperature is several degrees warmer than surrounding rural areas – may be responsible for a substantial portion of the average temperature increase linked to global warming. Compared with rural areas, urban areas have more dark surfaces (such as pavement) that absorb heat from the sun and less vegetation to provide shade and cool the air. Because these urban heat islands raise nighttime temperatures more than daytime temperatures compared with non-urban areas, some have argued that urbanization is to blame for data showing rising global temperatures.

Several studies have shown, however, that the urban heat island effect has minimal impact on rising global temperatures. In a 1997 study, David Easterling of the National Climatic Data Center examined data from 5,400 weather stations, of which 1,300 were located in urban areas. He found that urban effects on globally averaged temperature data were “negligible” and did not exceed about 0.05° C over the period 1900-1990.¹⁴ These results confirm the conclusions of a similar 1990 study.¹⁵ Most recently, David Parker of the UK’s Hadley Centre found that global temperatures have risen as much on windy nights (when the urban heat island effect is diminished) as on calm nights (when the effect is at its strongest). He concluded that “overall warming is not a consequence of urban development.”¹⁶

Rising Sea Levels

Oceans have risen with the melting of land-ice and the expansion of the ocean as it warms. Average sea levels have risen 0.1 to 0.2 meters in the past century.¹⁷ Sea level rise has already contributed to the inundation of some coastal land. In the Chesapeake Bay, 13 islands have disappeared entirely since the beginning of European settlement four centuries ago. Sea level in the Bay has increased by about 12 inches in the last century, with scientists estimating that global warming accounts for 2 to 6 inches of the increase.¹⁸ Louisiana loses approximately 24 square miles of wetlands each year, increasing the destructive potential of hurricanes like Hurricane Katrina.¹⁹ While development and land subsidence contribute to the loss of coastal land in these areas, rising sea levels also have an impact and threaten even greater changes to coastal areas in the decades to come.

More Severe Storms

Storms throughout the middle and high latitudes of the Northern Hemisphere have been getting more intense. The increase in the frequency of heavy precipitation events arises from several causes, including changes in atmospheric moisture, thunderstorm activity, and large-scale storm activity.²⁰

In addition, hurricanes have become more powerful and more destructive over the last three decades, a phenomenon that some researchers link to increasing global temperatures.²¹ The number of Category 4 and Category 5 hurricanes globally has nearly

doubled worldwide over the last 35 years.²² The Atlantic hurricane season of 2005 was the worst ever recorded, with the most named storms (28), the most hurricanes (15), the most Category 5 hurricanes (4), the most major hurricanes to hit the United States (4), the costliest hurricane (Katrina), and three of the six strongest hurricanes recorded (Wilma, the strongest ever, plus Katrina and Rita).²³ Recent research suggests that higher sea surface temperatures caused by global warming had a large role to play in triggering the destructive 2005 hurricane season.²⁴

More Frequent and Severe Heat Waves

Global warming is expected to increase the frequency and intensity of heat waves,²⁵ like the record-breaking and extensive heat wave that hit the United States in July 2006. Heat waves have serious implications for human health, causing deaths, heat stroke, and heat exhaustion.²⁶ The July 2006 heat wave killed at least 179 Americans.²⁷ In 2003, a scorching heat wave killed 22,000 to 35,000 people in Europe, where air conditioning is much less common; researchers estimate that human influences on the climate system more than doubled the risk of such a heat wave occurring.²⁸

Most deaths from heat waves occur among people with preexisting cardiovascular disease (heart attack and stroke) or chronic respiratory diseases, with elderly people, especially women, most affected.²⁹ The impacts are exacerbated by the disproportionate rise in nighttime temperatures, since people tend to recover from excessive heat exposure at night.³⁰

HUMAN ACTIVITIES ARE CAUSING GLOBAL WARMING

The changes described above are consistent with the kinds of widespread climatic shifts scientists believe will occur as a result of further global warming. They also are signs that human activities – primarily the burning of fossil fuels to heat and light our homes, power computers and industrial machinery, and fuel our cars and trucks, among other things – have already begun to affect the climate through the release of pollutants (known as greenhouse gases or global warming pollutants) that exacerbate the earth’s natural greenhouse effect.

In 2001, the Intergovernmental Panel on Climate Change, the global body charged with assessing the scientific record on global warming, concluded that “most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations.”³¹

The Greenhouse Effect

Global warming is caused by human exacerbation of the greenhouse effect. The greenhouse effect is a natural phenomenon in which gases in the earth’s atmosphere, including water vapor and carbon dioxide, trap radiation that otherwise would escape back to space. The greenhouse effect is necessary for the survival of life; without it, temperatures on earth would be too cold for humans and other life forms to survive.

But burning fossil fuels and other human activities, particularly over the last century, have altered the composition of the

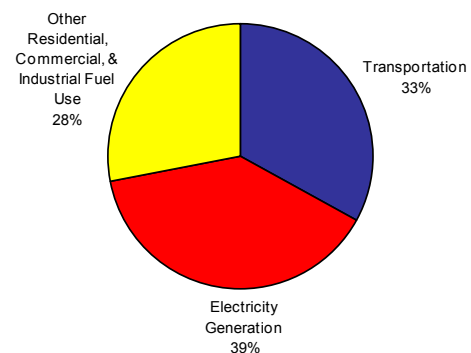
atmosphere in ways that intensify the greenhouse effect.

Since 1750, for example, the concentration of carbon dioxide (the leading global warming pollutant) in the atmosphere has increased by 35% as a result of human activity.³² The current rate of increase in carbon dioxide concentration is unprecedented in the last 20,000 years.³³ Concentrations of other global warming pollutants have increased as well.

Global Warming Emissions Are Rising

U.S. emissions of carbon dioxide have nearly doubled since 1960 and are projected to increase dramatically in the years to come.³⁴ Electric power plants contribute 39% of U.S. carbon dioxide emissions, transportation sources contribute 33%, and the direct consumption of fossil fuels in homes, businesses, and industry contributes the remaining 28% of emissions (Figure B).³⁵

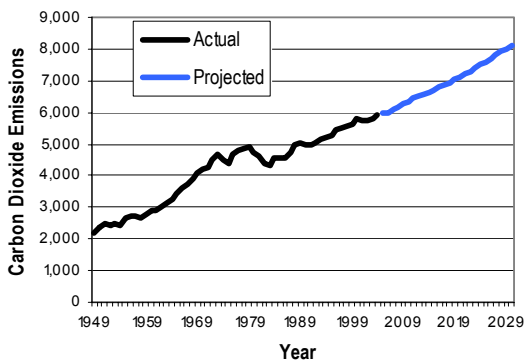
Figure B. Sources of Energy-Related Carbon Dioxide Emissions in the United States³⁶



The large volume of global warming emissions from U.S. electricity generation is mainly the result of America's reliance on carbon-intensive coal for electricity. Coal-fired power plants produce about half of America's electricity, but they release about 82% of the global warming pollution resulting from electricity generation.³⁷

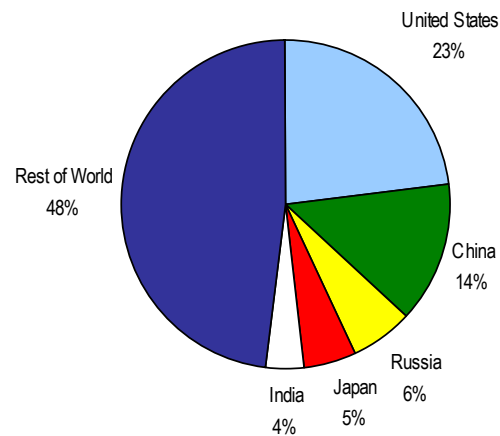
Since World War II, U.S. carbon dioxide emissions from energy use have increased at a rate of just under 2% per year (Figure C).³⁸ The U.S. Energy Information Administration (EIA) projects that U.S. emissions will continue to rise by an average of 1.2% per year between now and 2030.³⁹ Should this occur, in 2030 the United States will release 37% more carbon dioxide than it does today. Such an increase in emissions would make it impossible for the world to achieve the emission reductions needed to prevent the worst repercussions of global warming, since carbon dioxide and other global warming pollutants can stay in the atmosphere for a century or longer.

Figure C. Historical and Projected Emissions of Carbon Dioxide, United States (million metric tons)⁴⁰



The United States emits far more global warming pollution than any other nation in the world. The United States was responsible for nearly one-quarter of the world's carbon dioxide emissions in 2003 (Figure D). On a per-capita basis, the United States emits twice as much carbon dioxide as Great Britain or Japan, nearly three times as much as France, seven times as much as China, and 20 times as much as India.⁴¹

Figure D. Carbon Dioxide Emissions by Country, 2003⁴²



2006: RECORD HEAT

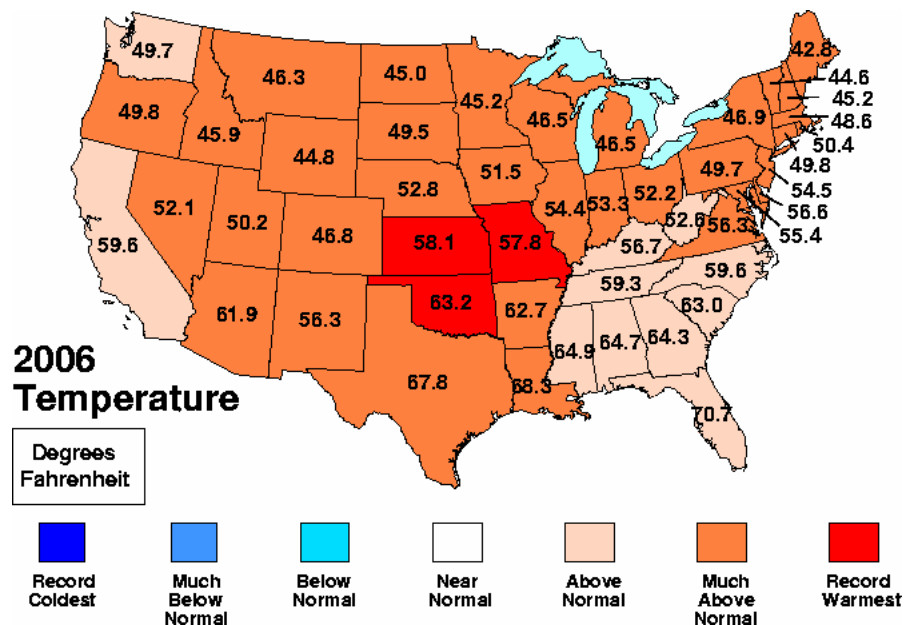
According to the National Climatic Data Center, the first seven months of 2006 were the warmest January-July of any year on record for the continental United States. The average temperature was 55.3° F, or 3.2° F above the 20th century (1901-2000) average.⁴³

Every state in the continental United States experienced warmer than average temperatures over the period (Figure E).⁴⁴ The National Climatic Data Center concluded that the average temperature between January-July 2006 was “much above

normal” - in this case the 20th century average - or warmer in 38 states.⁴⁵

Five states, including Kansas, Missouri, Oklahoma, South Dakota, and Texas, experienced record warmth for the period. In an additional 11 states, the first seven months of 2006 were the second warmest January-July on record. These states include Illinois, Maine, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, North Dakota, Vermont, and Wyoming.⁴⁶

Figure E. Above Normal Average Temperatures, January-July, 2006⁴⁷



* Note that South Dakota and Texas should be represented in red to indicate record warmth.

In North Dakota, the first seven months of 2006 were 6.6° F above the 20th century average. The average January-July temperature ranged between 4.0° F and 5.8° F above the 20th century average in Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Oklahoma, South Dakota, Wisconsin, and Wyoming.⁴⁸

See Table 1 for 2006 and historical January-July temperatures by state.

July's Sweltering Heat Wave

The July 2006 heat wave that caused blistering temperatures from California to Washington, DC broke more than 2,300 daily temperature records for the month and more than 50 records for the highest temperatures in any July, according to the National Climatic Data Center.⁴⁹ As a result,

the continental United States experienced its second-warmest July on record. The average temperature for the month was 77.2° F, which is 2.9° F above the 20th century average.⁵⁰

Wyoming experienced its warmest July ever on record; the average July temperature in the state was 5.3° F above the 20th century average. Four states - Nevada, North Dakota, Montana, and Idaho - suffered their second warmest July on record, and three states - California, South Dakota, and Oregon - experienced their third warmest July ever recorded. In North Dakota, the average July temperature was 5.7° F above the 20th century average.⁵¹

See Table 2 for 2006 and historical July temperatures by state.

Table 1. Temperature Trends for the First Seven Months of 2006 Compared with the 20th Century Average⁵²

State	January-July 2006: Rank Since 1895	Historical Average Temperature (°F): January-July, 1901-2000	Average Temperature (°F): January-July 2006	Degrees Above Historical Average (°F)
KS	Warmest	53.4	58.1	4.7
MO	Warmest	53.8	57.8	4.0
OK	Warmest	58.9	63.2	4.4
SD	Warmest	43.7	49.5	5.8
TX	Warmest	64.7	67.8	3.1
IL	2nd Warmest	51.0	54.4	3.5
ME	2nd Warmest	39.3	42.8	3.5
MN	2nd Warmest	39.4	45.2	5.8
MT	2nd Warmest	41.4	46.3	4.9
ND	2nd Warmest	38.4	45.0	6.6
NE	2nd Warmest	47.9	52.8	4.9
NH	2nd Warmest	41.7	45.2	3.5
NJ	2nd Warmest	50.7	54.5	3.8
NM	2nd Warmest	53.0	56.3	3.3
VT	2nd Warmest	40.8	44.6	3.8
WY	2nd Warmest	40.7	44.8	4.1
IA	3rd Warmest	46.6	51.5	4.9
WI	3rd Warmest	41.5	46.5	5.0
AR	4th Warmest	60.2	62.7	2.5
LA	4th Warmest	66.2	68.3	2.1
MI	4th Warmest	42.6	46.5	3.9
NV	4th Warmest	48.8	52.1	3.3
NY	4th Warmest	43.5	46.9	3.4
DE	5th Warmest	53.5	56.6	3.1
RI	5th Warmest	47.4	50.4	3.0
CT	6th Warmest	47.0	49.8	2.8
CO	7th Warmest	44.2	46.8	2.6
IN	7th Warmest	50.7	53.3	2.6
MA	7th Warmest	46.1	48.6	2.5
OH	7th Warmest	49.5	52.2	2.7
OR	7th Warmest	47.5	49.8	2.3
AZ	8th Warmest	59.0	61.9	2.9
MD	8th Warmest	52.6	55.4	2.8
UT	8th Warmest	47.4	50.2	2.8
PA	9th Warmest	47.7	49.7	2.0
VA	10th Warmest	54.4	56.3	1.9
ID	11th Warmest	43.3	45.9	2.6
TN	11th Warmest	57.5	59.3	1.8
CA	14th Warmest	58.0	59.6	1.6
WA	14th Warmest	47.5	49.7	2.2
AL	16th Warmest	63.0	64.7	1.7
WV	16th Warmest	51.1	52.6	1.5
KY	17th Warmest	55.0	56.7	1.7
MS	21st Warmest	63.5	64.9	1.4
NC	26th Warmest	58.5	59.6	1.1
FL	32nd Warmest	69.9	70.7	0.8
GA	33rd Warmest	63.5	64.3	0.8
SC	36th Warmest	62.3	63.0	0.7
U.S.	Warmest	52.1	55.3	3.2

* Note: NCDC did not provide summary data for Alaska, Hawaii or Washington, DC.

Table 2. July 2006 Average Temperatures Compared with the 20th Century Average⁵³

State	July 2006: Rank Since 1895	Historical Average Temperature (°F): July 1901-2000	Average Temperature (°F): July 2006	Degrees Above Historical Average (°F)
WY	Warmest	65.9	71.2	5.3
ID	2nd Warmest	66.5	71.2	4.7
MT	2nd Warmest	66.9	71.9	5.0
ND	2nd Warmest	68.7	74.4	5.7
NV	2nd Warmest	71.8	77.1	5.3
CA	3rd Warmest	75.2	78.9	3.7
OR	3rd Warmest	66.1	70.1	4.0
SD	3rd Warmest	72.8	78.1	5.3
MN	4th Warmest	69.1	73.8	4.7
NJ	4th Warmest	74.0	77.5	3.5
RI	5th Warmest	70.4	74.1	3.7
UT	5th Warmest	72.0	75.1	3.1
WA	6th Warmest	65.7	69.1	3.4
MA	7th Warmest	70.3	73.0	2.7
WI	7th Warmest	69.4	73.8	4.4
AZ	8th Warmest	79.7	82.2	2.5
CT	8th Warmest	71.2	74.0	2.8
NH	8th Warmest	67.6	70.4	2.8
VT	9th Warmest	67.3	70.1	2.8
DE	10th Warmest	75.9	78.3	2.4
ME	10th Warmest	66.3	69.0	2.7
MO	10th Warmest	77.7	80.5	2.8
NY	10th Warmest	68.8	71.5	2.7
AL	11th Warmest	80.0	81.9	1.9
IA	12th Warmest	73.9	77.0	3.1
NE	12th Warmest	74.8	78.4	3.6
KS	13th Warmest	78.9	81.7	2.8
MI	13th Warmest	68.7	71.3	2.6
OK	13th Warmest	81.5	84.4	2.9
MD	17th Warmest	75.0	77.1	2.1
NM	18th Warmest	73.1	74.6	1.5
AR	19th Warmest	80.4	82.1	1.7
LA	19th Warmest	81.9	82.9	1.0
VA	19th Warmest	75.0	76.7	1.7
CO	20th Warmest	67.4	69.1	1.7
GA	23rd Warmest	80.0	80.9	0.9
IL	23rd Warmest	75.8	77.6	1.8
OH	24th Warmest	73.1	74.6	1.5
TX	26th Warmest	82.4	83.5	1.1
PA	27th Warmest	71.0	72.1	1.1
FL	30th Warmest	81.3	81.7	0.4
MS	30th Warmest	80.8	81.7	0.9
TN	31st Warmest	77.4	78.4	1.0
IN	35th Warmest	74.7	75.5	0.8
KY	39th Warmest	76.4	77.0	0.6
WV	40th Warmest	72.1	72.6	0.5
NC	41st Warmest	77.2	77.8	0.6
SC	42nd Warmest	79.8	80.2	0.4
U.S.	2nd Warmest	74.3	77.2	2.9

* Note: NCDC did not provide summary data for Alaska, Hawaii or Washington, DC.

REPORT FINDINGS: TEMPERATURES RISING

The heat wave of 2006 was not anomalous; rather, it is indicative of a broader trend of rising temperatures across the country. To examine how recent temperature patterns compare with temperatures over the last 30 years, we looked at data from “First Order” weather stations for the years 2000-2005 and the first six months of 2006. First Order stations are those staffed in whole or in part by National Weather Service personnel and therefore provide the highest quality data. These stations also are good sources because of their geographical coverage, long periods of record, and fewer data gaps than other sites. The 255 stations are located in all 50 states and Washington, DC. We compared this recent data to historical, or “normal,” data from the stations for the three decades spanning 1971-2000. Overall, we found that temperatures since 2000 have been above normal in most parts of the country.

Average Temperatures Rising

Between 2000 and 2005, the average temperature was above normal (the 1971-2000 average) at 242 of the 255 stations (95%). See Appendix A for a list of weather stations and the average temperatures recorded between 2000 and 2005.

Average temperatures in Alaska were the most above normal. In Talkeetna, near Denali National Park, the average temperature between 2000 and 2005 was 4.6° F above the 1971-2000 average. In King Salmon, Bethel, and Kotzebue, the average temperature between 2000 and 2005 was almost 3° F above normal. In fact, of the 15 weather stations across the country recording the highest above-average temperatures, 11 are located in Alaska.

Locations outside of Alaska reporting the most above-normal average temperatures include Alamosa, Grand Junction, and Colorado Springs, Colorado; Marquette and Sault Sainte Marie, Michigan; Helena, Montana; Reno, Nevada; and Cheyenne, Wyoming (Table 3).

The greater warming that has occurred at high altitudes (or high elevation stations with snow and ice) in part reflects the “albedo (reflectivity) feedback loop.” This occurs when snow or ice, which reflects most of the sunlight, melts and exposes dark ground or water (e.g., a lake or ocean) that now absorbs most of the sunlight. The extra heat accelerates further melting of snow and ice.

Table 3. 30 Weather Stations Recording Average Temperatures that Deviate Most from Normal, 2000-2005

Rank	State	City	Location	Normal Average Temperature (°F): 1971-2000	Average Temperature (°F): 2000-2005	Degrees Above Normal (°F)
1	AK	TALKEETNA	TALKEETNA STATE ARPT	33.9	38.5	4.6
2	NV	RENO	CANNON INTERNATIONAL AP	51.3	54.7	3.4
3	AK	KING SALMON	KING SALMON ARPT	34.5	37.5	3.0
4	AK	BETHEL	BETHEL AIRPORT	29.9	32.8	2.9
5	AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMRL	21.8	24.6	2.8
6	AK	BIG DELTA	BIG DELTA ALLEN AAF	28.6	31.3	2.7
7	AK	GULKANA	GULKANA INTERMEDIATE FIELD	27.1	29.7	2.6
8	WY	CHEYENNE	MUNICIPAL AIRPORT	44.9	47.4	2.5
9	AK	ANCHORAGE	ANCHORAGE INTL AP	36.2	38.7	2.5
10	AK	MCGRATH	MCGRATH ARPT	26.9	29.4	2.5
11	AK	FAIRBANKS	FAIRBANKS INTL ARPT	26.7	29.1	2.4
12	AK	HOMER	HOMER ARPT	38.1	40.5	2.4
13	AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	35.0	37.3	2.3
14	CO	GRAND JUNCTION	WALKER FIELD	51.8	54.0	2.2
15	CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	40.8	43.0	2.2
16	MT	HELENA	HELENA AIRPORT	44.0	46.2	2.2
17	AK	BARROW	BARROW W POST-W ROGERS APT	10.4	12.6	2.2
18	MI	MARQUETTE	COUNTY AIRPORT	38.7	40.8	2.1
19	MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	40.1	42.2	2.1
20	TX	BROWNSVILLE	BROWNSVILLE AIRPORT	73.3	75.4	2.1
21	CO	COLORADO SPRINGS	COLORADO SPRINGS MUNI AP	47.8	49.9	2.1
22	AK	VALDEZ	VALDEZ	38.3	40.3	2.0
23	KS	GOODLAND	RENNER FIELD	50.7	52.7	2.0
24	AK	NOME	NOME MUNICIPAL ARPT	27.1	29.0	1.9
25	MN	ROCHESTER	MUNICIPAL AIRPORT	43.4	45.3	1.9
26	CA	FRESNO	FRESNO AIR TERMINAL	63.2	65.1	1.9
27	NE	NORFOLK	KARL STEFAN MEMORIAL APT	48.7	50.6	1.9
28	NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	47.8	49.6	1.8
29	MN	SAINT CLOUD	MUNICIPAL AIRPORT	41.8	43.6	1.8
30	NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	49.9	51.7	1.8

This trend continued for the first six months of 2006. Between January and June of 2006, the average temperature was above normal (the average January-June temperature from 1971-2000) at 233 of the 255 stations (91%). See Appendix B for a list of the weather stations and the average temperatures recorded during the first six months of 2006.

Average temperatures were far above normal in many locations across the country between January and June 2006, particularly in Texas and the Great Plains states. The average temperature was at least 3° F above normal in 109 (43%) of the locations; in 12 of these locations, the average temperature was at least 5° F above normal. In Kansas City, Missouri, the average temperature during the

first six months of 2006 was almost 5.9° F above normal, the highest in the United States. Average temperatures soared more than 5° F above normal in Grand Island and Norfolk, Nebraska. Weather stations in Texas recorded average temperatures that

were 5.6° F above normal in Wichita Falls, 5.3° F above normal in Dallas-Fort Worth, and 4.9° F above normal in San Antonio, just to name the locations that experienced some of the most warming (Table 4).

Table 4. 20 Weather Stations Recording Average Temperatures that Deviate Most from Normal, January-June 2006

Rank	State	City	Location	Normal Average Temperature (°F): Jan-June, 1971-2000	Average Temperature (°F): Jan-June 2006	Degrees Above Normal (°F)
1	MO	KANSAS CITY	INTERNATIONAL AIRPORT	49.3	55.2	5.9
2	TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	59.0	64.6	5.6
3	NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	45.1	50.6	5.5
4	ND	BISMARCK	MUNICIPAL AIRPORT	37.0	42.5	5.5
5	MN	ROCHESTER	MUNICIPAL AIRPORT	38.1	43.5	5.4
6	TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	61.7	67.0	5.3
7	MN	SAINT CLOUD	MUNICIPAL AIRPORT	36.4	41.7	5.3
8	MT	HELENA	HELENA AIRPORT	40.0	45.2	5.2
9	NE	NORFOLK	KARL STEFAN MEMORIAL APT	43.9	49.0	5.1
10	OK	OKLAHOMA CITY	WILL ROGERS WORLD AIRPORT	55.8	61.0	5.1
11	SD	SIOUX FALLS	FOSS FIELD	39.7	44.9	5.1
12	MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	39.9	45.0	5.1
13	MT	GLASGOW	INT'L AIRPORT	37.5	42.5	5.0
14	TX	SAN ANTONIO	INTERNATIONAL AIRPORT	65.5	70.4	4.9
15	KS	WICHITA	MID-CONTINENT AIRPORT	51.4	56.2	4.9
16	ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	35.7	40.6	4.9
17	MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	33.7	38.5	4.8
18	TX	LUBBOCK	REGIONAL AIRPORT	56.5	61.3	4.8
19	SD	HURON	HURON REGIONAL AIRPORT	40.0	44.8	4.8
20	MI	MARQUETTE	COUNTY AIRPORT	32.7	37.4	4.8

Nights Getting Warmer

Temperatures worldwide are not dropping at night as much now as they did in the past. Researchers have documented a marked increase in the occurrence of warm nighttime temperatures during the last century, with the strongest change in the last few decades.⁵⁴ Minimum temperatures – the lowest

temperatures recorded on a given day, usually at night – are increasing at nearly twice the pace of maximum temperatures.⁵⁵

Our analysis of temperature data from 255 major weather stations across the United States shows that the average minimum temperature between 2000 and 2005 was above normal at 234 of the stations (92%).

See Appendix C for a list of weather stations and the average minimum temperatures recorded between 2000 and 2005.

Between 2000 and 2005, the average minimum temperature in Reno, Nevada was 5.2° F above normal, the highest in the United States. Albuquerque, New Mexico reported average minimum temperatures that were 3.1° F above normal. Alaska also

reported warmer nighttime temperatures at weather stations across the vast state. In Talkeetna, the average minimum temperature between 2000 and 2005 was 5.1° F above normal, the second highest in the country. In Fairbanks, Big Delta, and Kotzebue, the average minimum temperature between 2000 and 2005 was about 3° F above normal (Table 5).

Table 5. 30 Weather Stations Recording Average Minimum Temperatures that Deviate Most from Normal, 2000-2005

Rank	State	City	Location	Normal Average Minimum Temperature (°F): 1971-2000	Average Minimum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
1	NV	RENO	CANNON INTERNATIONAL AP	35.2	40.4	5.2
2	AK	TALKEETNA	TALKEETNA STATE ARPT	24.5	29.6	5.1
3	NM	ALBUQUERQUE	INTL AIRPORT-KIRTLAND AFB	43.2	46.3	3.1
4	AK	FAIRBANKS	FAIRBANKS INTL ARPT	16.2	19.2	3.0
5	AK	BIG DELTA	BIG DELTA ALLEN AAF	19.7	22.7	3.0
6	MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	30.5	33.4	2.9
7	AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMRL	15.9	18.7	2.8
8	MT	HELENA	HELENA AIRPORT	31.2	33.9	2.7
9	AK	MCGRATH	MCGRATH ARPT	17.0	19.7	2.7
10	AK	ANCHORAGE	ANCHORAGE INTL AP	29.3	31.9	2.6
11	SD	SIOUX FALLS	FOSS FIELD	33.0	35.6	2.6
12	WY	CHEYENNE	MUNICIPAL AIRPORT	32.3	34.8	2.5
13	AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	30.8	33.3	2.5
14	MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	35.9	38.4	2.5
15	NV	LAS VEGAS	MCCARRAN INTERNATIONAL APT	56.3	58.8	2.5
16	CO	COLORADO SPRINGS	COLORADO SPRINGS MUNI. AP	33.7	36.1	2.4
17	CA	REDDING	REDDING MUNICIPAL	47.9	50.1	2.2
18	CO	GRAND JUNCTION	WALKER FIELD	38.5	40.7	2.2
19	WA	YAKIMA	YAKIMA MUNICIPAL AIRPORT	34.7	36.9	2.2
20	AK	GULKANA	GULKANA INTERMEDIATE FIELD	16.8	19.0	2.2
21	AZ	PHOENIX	SKY HARBOR INTL AIRPORT	61.9	64.1	2.2
22	AK	BETHEL	BETHEL AIRPORT	23.3	25.4	2.1
23	AK	BARROW	BARROW W POST-W ROGERS APT	5.0	7.1	2.1
24	AK	HOMER	HOMER ARPT	31.4	33.4	2.0
25	AK	NOME	NOME MUNICIPAL ARPT	20.4	22.4	2.0
26	AK	KING SALMON	KING SALMON ARPT	26.6	28.6	2.0
27	TX	MIDLAND-ODESSA	MIDLAND INTERNATIONAL ARPT	49.9	51.8	1.9
28	AK	YAKUTAT	YAKUTAT STATE ARPT	32.5	34.4	1.9
29	NM	ROSWELL	INDUSTRIAL AIR CENTER AP	45.3	47.2	1.9
30	DC	WASHINGTON DC	DULLES INTL AIRPORT	42.6	44.5	1.9

This trend continued for the first six months of 2006. Between January and June of 2006, the average minimum temperature was above normal at 222 of the stations (87%). See Appendix D for a list of the weather stations and the average minimum temperatures recorded during the first half of 2006.

The average minimum temperatures were far above normal in many locations across the country during the first six months of 2006. The average minimum temperature was at least 3° F above normal in 72 (28%) of the

locations; in nine of these locations, the average minimum temperature was at least 5° F above normal. Nighttime temperatures were particularly mild on average in the upper Midwest. Minimum temperatures soared almost 6° F above normal in Minneapolis-St. Paul, Duluth, Rochester, and St. Cloud, Minnesota. Weather stations in Sioux Falls, South Dakota and Bismarck, North Dakota recorded average minimum temperatures 6.7° F and 5.2° F above normal, respectively (Table 6).

Table 6. 20 Weather Stations Recording Average Minimum (Nighttime) Temperatures that Deviate Most from Normal, January-June 2006

Rank	State	City	Location	Normal Average Minimum Temperature (°F): Jan-June, 1971-2000	Average Minimum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
1	SD	SIoux FALLS	FOSS FIELD	27.7	34.4	6.7
2	MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	23.7	29.7	6.0
3	MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	30.4	36.3	5.9
4	MN	DULUTH	INTERNATIONAL AIRPORT	23.0	28.8	5.8
5	MN	ROCHESTER	MUNICIPAL AIRPORT	28.9	34.6	5.7
6	MN	SAINT CLOUD	MUNICIPAL AIRPORT	25.6	31.2	5.6
7	MT	HELENA	HELENA AIRPORT	27.9	33.2	5.3
8	ND	BISMARCK	MUNICIPAL AIRPORT	25.2	30.5	5.2
9	NV	RENO	CANNON INTERNATIONAL AP	32.7	37.7	5.0
10	MO	KANSAS CITY	INTERNATIONAL AIRPORT	39.2	44.1	4.9
11	ME	CARIBOU	MUNICIPAL AIRPORT	22.9	27.7	4.8
12	MI	LANSING	CAPITAL CITY AIRPORT	31.2	35.9	4.7
13	MI	MARQUETTE	COUNTY AIRPORT	22.9	27.6	4.7
14	ND	FARGO	HECTOR AIRPORT	25.7	30.3	4.6
15	MT	GREAT FALLS	INTERNATIONAL AIRPORT	27.0	31.6	4.6
16	WI	LA CROSSE	MUNICIPAL AIRPORT	31.2	35.8	4.6
17	WI	GREEN BAY	AUSTIN STRAUBEL FIELD	29.1	33.6	4.5
18	ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	23.3	27.8	4.5
19	SD	HURON	HURON REGIONAL AIRPORT	28.6	33.1	4.5
20	NE	NORFOLK	KARL STEFAN MEMORIAL ARPT	32.3	36.8	4.5

Days Getting Warmer

Our analysis of temperature data from 255 major weather stations shows that average maximum temperatures – the peak temperature on any given day – are above normal across the country. Between 2000 and 2005, the average maximum temperature was higher than normal at 204 of the stations (80%). Generally, maximum temperatures did not rise as much as nighttime temperatures, consistent with the global trend.⁵⁶ See Appendix E for a list of weather stations and the average maximum temperatures recorded between 2000 and 2005.

Alaska experienced the highest above-normal maximum temperatures between 2000 and 2005. Talkeetna and King Salmon reported maximum temperatures averaging 3.6° F and 3.4° F above normal, respectively; Bethel experienced average maximum temperatures 3° F above normal. Locations outside of Alaska experiencing the most above-normal average maximum temperatures include Goodland, Kansas; Alamosa and Pueblo, Colorado; Brownsville, Texas; and Rapid City, South Dakota (Table 7).

This trend continued for the first six months of 2006. Between January and June of 2006, the average maximum temperature was above normal at 223 (87%) of the stations we examined. See Appendix F for a list of the weather stations and the average maximum temperatures recorded during the first six months of 2006.

The average maximum temperatures were far above normal in many locations across the country between January and June 2006. The average maximum temperature was at least 3° F above normal in 100 (39%) of the locations; in 28 of these locations, the average maximum temperature was at least 5° F above normal. Warmer-than-average days hit Texas and the Great Plains the most between January and June 2006. Average peak temperatures soared more than 6° F above normal in Dodge City, Concordia, and Wichita, Kansas as well as Grand Island, Nebraska and Oklahoma City, Oklahoma. Weather stations in Texas recorded average maximum temperatures 6.6° F above normal in Wichita Falls, 6° F above normal in San Antonio, and 5.9° F above normal in Dallas-Fort Worth, just to name the locations experiencing some of the most warming (Table 8).

Table 7. 30 Weather Stations Recording Average Maximum Temperatures that Deviate Most from Normal, 2000-2005

Rank	State	City	Location	Normal Average Maximum Temperature (°F): 1971-2000	Average Maximum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
1	AK	TALKEETNA	TALKEETNA STATE ARPT	43.3	46.9	3.6
2	AK	KING SALMON	KING SALMON ARPT	42.4	45.8	3.4
3	AK	BETHEL	BETHEL AIRPORT	36.6	39.6	3.0
4	KS	GOODLAND	RENNER FIELD	63.9	66.7	2.8
5	CO	PUEBLO	MEMORIAL AIRPORT	67.4	70.1	2.7
6	CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	58.6	61.1	2.5
7	AK	GULKANA	GULKANA INTERMEDIATE FIELD	37.4	39.9	2.5
8	AK	HOMER	HOMER ARPT	44.6	47.0	2.4
9	AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMRL	27.7	30.1	2.4
10	TX	BROWNSVILLE	BROWNSVILLE AIRPORT	82.0	84.3	2.3
11	SD	RAPID CITY	RAPID CITY REGIONAL AIRPORT	59.1	61.4	2.3
12	MI	MARQUETTE	COUNTY AIRPORT	48.0	50.2	2.2
13	NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	61.1	63.3	2.2
14	AZ	WINSLOW	WINSLOW AIRPORT	70.4	72.5	2.1
15	WY	CASPER	NATRONA COUNTY INT'L ARPT	58.2	60.2	2.0
16	WY	CHEYENNE	MUNICIPAL AIRPORT	57.6	59.6	2.0
17	AK	ANCHORAGE	ANCHORAGE INTL AP	43.1	45.1	2.0
18	AK	BIG DELTA	BIG DELTA ALLEN AAF	37.4	39.3	1.9
19	CO	GRAND JUNCTION	WALKER FIELD	65.1	66.9	1.8
20	AK	MCGRATH	MCGRATH ARPT	36.8	38.6	1.8
21	AK	VALDEZ	VALDEZ	44.2	46.0	1.8
22	AK	BARROW	BARROW W POST-W ROGERS APT	15.8	17.5	1.7
23	AK	BETTLES	BETTLES FIELD	32.4	34.1	1.7
24	NE	NORFOLK	KARL STEFAN MEMORIAL AIRPORT	60.3	62.0	1.7
25	MN	ROCHESTER	MUNICIPAL AIRPORT	52.6	54.3	1.7
26	CA	FRESNO	FRESNO AIR TERMINAL	75.3	77.0	1.7
27	KS	TOPEKA	MUNICIPAL(PHILIP BILLARD)AP	65.2	66.8	1.6
28	AK	COLD BAY	COLD BAY ARPT	43.1	44.7	1.6
29	AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	39.1	40.7	1.6
30	NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	62.8	64.4	1.6

Table 8. 20 Weather Stations Recording Average Maximum Temperatures that Deviate Most from Normal, January-June 2006

Rank	State	City	Location	Normal Average Maximum Temperature (°F): Jan-June, 1971-2000	Average Maximum Temperature (°F): Jan-June 2006	Degrees Above Normal (°F)
1	KS	DODGE CITY	DODGE CITY REG. ARPT	62.8	69.6	6.8
2	NE	GRAND ISLAND	HALL COUNTY REG. AP	56.3	63.0	6.7
3	TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	71.4	78.0	6.6
4	OK	OKLAHOMA CITY	WILL ROGERS WORLD ARPT	66.7	73.2	6.5
5	MO	KANSAS CITY	INTERNATIONAL AIRPORT	59.5	65.9	6.4
6	KS	CONCORDIA	BLOSSER MUNICIPAL ARPT	59.4	65.7	6.3
7	KS	WICHITA	MID-CONTINENT AIRPORT	62.4	68.5	6.1
8	TX	SAN ANTONIO	INTERNATIONAL AIRPORT	76.9	82.9	6.0
9	TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	72.1	78.1	5.9
10	KS	GOODLAND	RENNER FIELD	59.3	65.2	5.9
11	TX	LUBBOCK	REGIONAL AIRPORT	70.6	76.5	5.9
12	TX	SAN ANGELO	MATHIS FIELD	74.7	80.5	5.8
13	WY	SHERIDAN	SHERIDAN COUNTY ARPT	53.4	59.3	5.8
14	KS	TOPEKA	MUNI. (PHILIP BILLARD) AP	60.4	66.2	5.8
15	NE	NORTH PLATTE	LEE BIRD FIELD	58.2	63.9	5.7
16	NM	CLAYTON	MUNICIPAL AIRPORT	63.6	69.2	5.6
17	TX	CORPUS CHRISTI	INTERNATIONAL AIRPORT	78.0	83.5	5.5
18	CO	PUEBLO	MEMORIAL AIRPORT	63.1	68.5	5.4
19	CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	54.7	60.1	5.4
20	NE	LINCOLN	MUNICIPAL AIRPORT	57.7	63.0	5.3

RECOMMENDATIONS

The widespread warming documented in this report should be a wake-up call to policymakers in Washington, DC and state capitals across the country. Global warming poses a significant and growing threat. To reduce the magnitude of this threat, the United States must quickly and rapidly reduce its emissions of the pollutants that cause global warming.

The United States has an indispensable role to play in reducing global warming emissions. The United States is by far the world's largest consumer of fossil fuels and emitter of global warming pollution, and thus must make a firm commitment to curbing emissions – and carry through on that commitment – in order to limit the effects of global warming.

Avoiding the worst consequences of global warming – such as massive melting of Arctic and Antarctic ice, which will substantially raise sea levels; major crop failures in many parts of the world; and the potential shutdown of the ocean current that carries warmth from the tropics to Europe – will require the United States and other industrialized countries to stabilize emissions within the next decade, begin reducing them soon thereafter, and cut global warming emissions by about 80% by mid-century.⁵⁷

Achieving those reductions won't be easy, but it can be done. By improving the efficiency with which we use fossil fuels and increasing our use of clean, renewable energy, the United States can reduce its global warming emissions in the near future, while putting America on a path toward

dramatically lower global warming emissions in the decades to come.

The good news is that there are many solutions that could be put into place *today* that would lead to significant reductions in global warming pollution. A recent report detailed six challenging but feasible steps to improve energy efficiency and use more renewable energy. These six steps, coupled with strong, mandatory limits on global warming emissions, could reduce U.S. global warming emissions by nearly 20% by 2020 – a significant down payment on the larger pollution reductions that the United States will need to achieve in the decades ahead in order to keep global warming in check. These steps also would have other, far-reaching positive impacts, such as improving America's long-term economy and energy security by reducing U.S. dependence on scarce fossil fuels.⁵⁸

To curb global warming and protect future generations, the United States should adopt a series of public policies designed to quickly and significantly reduce emissions of global warming pollutants from power plants, cars and trucks, and manufacturing facilities.

Cap global warming emissions. The United States should establish mandatory, science-based limits on carbon dioxide and other global warming pollutants that reduce emissions from today's levels within 10 years, by 15-20% by 2020, and by 80% by 2050.

Adopt complementary clean energy policies to reduce global warming emissions. The United States should adopt strong clean

energy policies to achieve these reductions, including, but not limited to:

- Transportation policies designed to reduce growth in vehicle travel and promote alternatives to automobile travel.
- A substantial increase in federal fuel economy standards for cars and light trucks and creation of federal fuel economy standards for heavy trucks.
- A renewable fuel standard requiring a significant share of transportation fuel to come from renewables by 2020.
- Policy support for the development and introduction of plug-in hybrid, electric, and fuel-cell vehicles.

- Stronger appliance efficiency standards, energy efficiency programs, and other policies designed to improve energy efficiency.
- A federal renewable energy standard requiring a large and increasing share of the nation's electricity to come from renewable energy.

Encourage action at the state level. Federal action to reduce global warming pollution should promote innovative approaches at the state level and not impede individual states or groups of states from pursuing policies that go above and beyond the commitments made by the federal government.

METHODOLOGY

We obtained First Order Summary of the Day data (DS-3210) directly from the National Climatic Data Center of the National Oceanic & Atmospheric Administration (NOAA) in August 2006 for the years 2000-2005 and the first six months of 2006. This data set contains daily observations for a range of meteorological elements, including maximum, minimum, and mean temperature.

We looked at data from 255 major weather stations. We generated this list of 255 stations from a list of “First Order” stations in the continental United States, obtained from Weather 2000,⁵⁹ a meteorological consulting firm. “First Order” stations are staffed in whole or in part by National Weather Service (Civil Service) personnel and therefore provide the most comprehensive and reliable data. Because the Weather 2000 list did not include

stations in Alaska or Hawaii, we used NOAA’s *Comparative Climatic Data* report to add stations for these states.⁶⁰

We only included stations in our analysis with baseline historical data for temperature “normals.” The historical data for maximum, minimum, and mean temperature normals are 30-year average values computed by NOAA from observed temperature data during the period 1971-2000. Normals are updated decennially.⁶¹

The National Climatic Data Center did not provide normal maximum temperature data for the Ronald Reagan National Airport and Dulles International Airport in the Washington, DC area. We did obtain normal average and minimum temperature data for these locations.

Appendix A. Average Temperatures (2000-2005) Compared with Historical Normals (1971-2000): By Weather Station

State	City	Location	Normal Average Temperature (°F): 1971-2000	Average Temperature (°F): 2000-2005	Degrees Above Normal (°F)
AK	ANCHORAGE	ANCHORAGE INTL AP	36.2	38.7	2.5
AK	ANNETTE	ANNETTE ISLAND AP	46.0	47.3	1.3
AK	BARROW	BARROW W POST-W ROGERS ARPT	10.4	12.6	2.2
AK	BETHEL	BETHEL AIRPORT	29.9	32.8	2.9
AK	BETTLES	BETTLES FIELD	22.9	24.7	1.8
AK	BIG DELTA	BIG DELTA ALLEN AAF	28.6	31.3	2.7
AK	COLD BAY	COLD BAY ARPT	38.4	40.0	1.6
AK	FAIRBANKS	FAIRBANKS INTL ARPT	26.7	29.1	2.4
AK	GULKANA	GULKANA INTERMEDIATE FIELD	27.1	29.7	2.6
AK	HOMER	HOMER ARPT	38.1	40.5	2.4
AK	JUNEAU	JUNEAU INT'L ARPT	41.5	42.7	1.2
AK	KING SALMON	KING SALMON ARPT	34.5	37.5	3.0
AK	KODIAK	KODIAK	40.5	42.0	1.5
AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMORIAL	21.8	24.6	2.8
AK	MCGRATH	MCGRATH ARPT	26.9	29.4	2.5
AK	NOME	NOME MUNICIPAL ARPT	27.1	29.0	1.9
AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	35.0	37.3	2.3
AK	TALKEETNA	TALKEETNA STATE ARPT	33.9	38.5	4.6
AK	VALDEZ	VALDEZ	38.3	40.3	2.0
AK	YAKUTAT	YAKUTAT STATE ARPT	39.5	41.2	1.7
AL	BIRMINGHAM	INTERNATIONAL AIRPORT	62.2	63.3	1.1
AL	HUNTSVILLE	INTNAL/JONES FIELD	60.6	61.6	1.0
AL	MOBILE	BATES FIELD	66.8	67.8	1.0
AL	MONTGOMERY	DANNELLY FIELD	65.0	65.6	0.6
AR	FORT SMITH	MUNICIPAL AIRPORT	61.2	62.3	1.1
AR	LITTLE ROCK	ADAMS FIELD	62.1	62.8	0.7
AZ	FLAGSTAFF	PULLIAM AIRPORT	46.2	47.2	1.0
AZ	PHOENIX	SKY HARBOR INTL AIRPORT	74.2	75.8	1.6
AZ	TUCSON	INTERNATIONAL AIRPORT	68.7	70.3	1.6
AZ	WINSLOW	WINSLOW AIRPORT	55.2	56.5	1.3
CA	BAKERSFIELD	KERN COUNTY AIR TERMINAL	65.0	65.8	0.8
CA	BISHOP	BISHOP AIRPORT	56.2	56.9	0.7
CA	EUREKA	DOWNTOWN	52.9	53.6	0.7
CA	FRESNO	FRESNO AIR TERMINAL	63.2	65.1	1.9
CA	LONG BEACH	LONG BEACH AIRPORT	65.3	64.4	-0.9
CA	LOS ANGELES	DOWNTOWN L.A./USC CAMPUS	66.2	65.2	-1.0
CA	LOS ANGELES	INTERNATIONAL AIRPORT	63.3	63.0	-0.3
CA	REDDING	REDDING MUNICIPAL	61.6	63.1	1.5
CA	SACRAMENTO	EXECUTIVE AIRPORT	61.1	61.7	0.6
CA	SAN DIEGO	LINDBERGH FIELD	64.4	63.7	-0.7
CA	SAN FRANCISCO	DOWNTOWN SF	58.3	58.0	-0.3
CA	SAN FRANCISCO	INTERNATIONAL AIRPORT	57.3	58.6	1.3
CA	SANTA MARIA	SANTA MARIA PUBLIC AIRPORT	57.7	57.7	0.01
CA	STOCKTON	METROPOLITAN AIRPORT	61.8	62.1	0.3

State	City	Location	Normal Average Temperature (°F); 1971-2000	Average Temperature (°F); 2000-2005	Degrees Above Normal (°F)
CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	40.8	43.0	2.2
CO	COLORADO SPRINGS	COLORADO SPRINGS MUNICIPAL AP	47.8	49.9	2.1
CO	DENVER	DENVER INTERNATIONAL AP	50.1	51.0	0.9
CO	GRAND JUNCTION	WALKER FIELD	51.8	54.0	2.2
CO	PUEBLO	MEMORIAL AIRPORT	51.7	53.1	1.4
CT	BRIDGEPORT	SIKORSKY MEMORIAL AIRPORT	52.1	52.6	0.5
CT	HARTFORD	BRADLEY INTERNATIONAL AIRPORT	50.2	50.5	0.3
DC	WASHINGTON DC	RONALD REAGAN NATIONAL AP	57.5	58.1	0.6
DC	WASHINGTON DC	DULLES INTERNATIONAL AIRPORT	54.2	55.2	1.0
DE	WILMINGTON	NEW CASTLE COUNTY APRT	54.4	54.7	0.3
FL	DAYTONA BEACH	INTERNATIONAL AIRPORT	71.0	71.3	0.3
FL	FORT MYERS	PAGE FIELD	74.9	74.7	-0.2
FL	GAINESVILLE	REGIONAL AIRPORT	68.6	69.1	0.5
FL	JACKSONVILLE	INTERNATIONAL AIRPORT	68.0	68.5	0.5
FL	KEY WEST	INTERNATIONAL AIRPORT	78.1	78.1	-0.03
FL	MIAMI	INTERNATIONAL AIRPORT	76.7	77.2	0.5
FL	ORLANDO	INTERNATIONAL AIRPORT	72.8	72.8	0.04
FL	PENSACOLA	PENSACOLA REGIONAL AIRPT	68.2	68.4	0.2
FL	TALLAHASSEE	MUNICIPAL AIRPORT	68.0	68.1	0.1
FL	TAMPA	INTERNATIONAL AIRPORT	73.1	73.5	0.4
FL	VERO BEACH	MUNICIPAL AIRPORT	73.2	73.2	0.02
FL	WEST PALM BEACH	PALM BEACH INTERNATIONAL AP	75.3	75.8	0.5
GA	ATHENS	MUNICIPAL AIRPORT	61.5	62.3	0.8
GA	ATLANTA	HARTSFIELD ATLANTA INTL AP	62.1	62.6	0.5
GA	AUGUSTA	BUSH FIELD	63.2	63.7	0.5
GA	COLUMBUS	METROPOLITAN AIRPORT	65.1	66.1	1.0
GA	MACON	MIDDLE GA REGIONAL AIRPORT	63.7	65.0	1.3
GA	SAVANNAH	MUNICIPAL AIRPORT	66.2	66.5	0.3
HI	HILO	HILO INTERNATIONAL AP	73.9	74.5	0.6
HI	HONOLULU	HONOLULU INTL ARPT	77.5	78.4	0.9
HI	KAHULUI	KAHULUI AIRPORT	75.8	76.1	0.3
HI	LIHUE	LIHUE AIRPORT	75.7	76.4	0.7
IA	DES MOINES	INTERNATIONAL AIRPORT	50.0	51.5	1.5
IA	DUBUQUE	MUNICIPAL AIRPORT	46.9	47.9	1.0
IA	SIoux CITY	MUNICIPAL AIRPORT	48.3	49.5	1.2
IA	WATERLOO	L.B. MUNICIPAL AIRPORT	47.2	48.5	1.3
ID	BOISE	BOISE AIR TER. (GOWEN FLD.)	51.9	53.3	1.4
ID	LEWISTON	LEWISTON-NEZ PERCE COUNTY AP	52.4	53.6	1.2
ID	POCATELLO	MUNICIPAL AIRPORT	46.5	47.0	0.5
IL	CHICAGO	OHARE INTERNATIONAL AIRPORT	49.1	50.4	1.3
IL	MOLINE	QUAD CITY AIRPORT	50.2	51.6	1.4
IL	PEORIA	GREATER PEORIA AIRPORT	50.8	52.6	1.8
IL	ROCKFORD	GREATER ROCKFORD AIRPORT	47.9	49.4	1.5
IL	SPRINGFIELD	CAPITAL AIRPORT	52.7	53.4	0.7
IN	EVANSVILLE	DRESS REGIONAL AIRPORT	56.0	56.7	0.7
IN	FORT WAYNE	BAER FIELD	49.9	50.6	0.7
IN	INDIANAPOLIS	INTERNATIONAL AIRPORT	52.5	53.7	1.2

State	City	Location	Normal Average Temperature (°F); 1971-2000	Average Temperature (°F); 2000-2005	Degrees Above Normal (°F)
IN	SOUTH BEND	MICHIANA REGIONAL AIRPORT	49.5	50.3	0.8
KS	CONCORDIA	BLOSSER MUNICIPAL AIRPORT	53.5	55.0	1.5
KS	DODGE CITY	DODGE CITY REGIONAL ARPT	55.2	56.0	0.8
KS	GOODLAND	RENNER FIELD	50.7	52.7	2.0
KS	TOPEKA	MUNICIPAL(PHILIP BILLARD)AP	54.3	56.0	1.7
KS	WICHITA	MID-CONTINENT AIRPORT	56.4	57.6	1.2
KY	JACKSON	JULIAN CARROLL AP	55.9	57.0	1.1
KY	LEXINGTON	BLUE GRASS FIELD	55.2	55.9	0.7
KY	LOUISVILLE	STANDIFORD FIELD	56.9	58.4	1.5
KY	PADUCAH	BARKLEY REGIONAL ARPT	56.8	58.1	1.3
LA	BATON ROUGE	RYAN AIRPORT	67.0	68.1	1.1
LA	LAKE CHARLES	MUNICIPAL AIRPORT	67.9	69.0	1.1
LA	NEW ORLEANS	NEW ORLEANS INT'L AIRPORT	68.8	70.0	1.2
LA	SHREVEPORT	SHREVEPORT REGIONAL AIRPORT	65.7	66.5	0.8
MA	BLUE HILL	MILTON OBS	49.0	49.5	0.5
MA	BOSTON	GEN LOGAN INTERNATIONAL AP	51.6	51.6	-0.03
MA	WORCESTER	WORCESTER REGIONAL AIRPORT	47.2	48.1	0.9
MD	BALTIMORE	BALTIMORE-WASHINGTON INT'L AP	54.6	55.5	0.9
ME	CARIBOU	MUNICIPAL AIRPORT	39.2	39.9	0.7
ME	PORTLAND	PORTLAND INTERNATIONAL JETPORT	45.7	46.5	0.8
MI	ALPENA	PHELPS COLLINS AIRPORT	42.5	44.1	1.6
MI	DETROIT	METROPOLITAN AIRPORT	49.7	50.6	0.9
MI	FLINT	BISHOP AIRPORT	46.8	48.3	1.5
MI	GRAND RAPIDS	KENT COUNTY AIRPORT	47.6	48.6	1.0
MI	HOUGHTON LAKE	ROSCOMMON COUNTY APRT	43.1	44.2	1.1
MI	LANSING	CAPITAL CITY AIRPORT	46.8	48.0	1.2
MI	MARQUETTE	COUNTY AIRPORT	38.7	40.8	2.1
MI	MUSKEGON	MUSKEGON COUNTY AIRPORT	47.1	48.7	1.6
MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	40.1	42.2	2.1
MN	DULUTH	INTERNATIONAL AIRPORT	39.1	40.2	1.1
MN	INTERNATIONAL FALLS	FALLS INTERNATIONAL AP	37.4	38.3	0.9
MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	45.4	47.2	1.8
MN	ROCHESTER	MUNICIPAL AIRPORT	43.4	45.3	1.9
MN	SAINT CLOUD	MUNICIPAL AIRPORT	41.8	43.6	1.8
MO	COLUMBIA	COLUMBIA REGIONAL AIRPORT	54.0	55.1	1.1
MO	KANSAS CITY	INTERNATIONAL AIRPORT	54.2	55.5	1.3
MO	SPRINGFIELD	REGIONAL AIRPORT	56.2	56.7	0.5
MO	ST. LOUIS	INTERNATIONAL AIRPORT	56.3	57.5	1.2
MS	JACKSON	ALLEN C THOMPSON FIELD	64.1	65.0	0.9
MS	MERIDIAN	KEY FIELD	64.7	64.4	-0.3
MS	TUPELO	TUPLO MUNI/LEMONS AIRPORT	61.3	62.5	1.2
MT	BILLINGS	INTERNATIONAL AIRPORT	47.4	48.5	1.1
MT	GLASGOW	INT'L AIRPORT	42.6	43.2	0.6
MT	GREAT FALLS	INTERNATIONAL AIRPORT	43.7	45.2	1.5
MT	HELENA	HELENA AIRPORT	44.0	46.2	2.2
MT	KALISPELL	GLACIER PARK INT'L AIRPORT	42.6	43.3	0.7
MT	MISSOULA	MISSOULA INT'L AIRPORT	44.8	45.5	0.7

State	City	Location	Normal Average Temperature (°F); 1971-2000	Average Temperature (°F); 2000-2005	Degrees Above Normal (°F)
NC	ASHEVILLE	ASHEVILLE REGIONAL AIRPORT	54.8	56.3	1.5
NC	CAPE HATTERAS	WEATHER SERVICE BUILDING	62.8	63.4	0.6
NC	CHARLOTTE	DOUGLAS INTERNATIONAL AIRPORT	61.4	60.3	-1.1
NC	GREENSBORO-WNSTN-SAL	GREENSBORO REG. AP, NC	58.1	59.1	1.0
NC	RALEIGH	RALEIGH-DURHAM AIRPORT	59.6	60.5	0.9
NC	WILMINGTON	NEW HANOVER COUNTY AIRPORT	63.8	63.8	0.01
ND	BISMARCK	MUNICIPAL AIRPORT	42.3	44.0	1.7
ND	FARGO	HECTOR AIRPORT	41.5	42.6	1.1
ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	40.9	41.5	0.6
NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	49.9	51.7	1.8
NE	LINCOLN	MUNICIPAL AIRPORT	51.1	52.3	1.2
NE	NORFOLK	KARL STEFAN MEMORIAL AIRPORT	48.7	50.6	1.9
NE	NORTH PLATTE	LEE BIRD FIELD	48.7	49.8	1.1
NE	OMAHA	EPPLEY AIRFIELD	50.7	52.2	1.5
NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	47.8	49.6	1.8
NE	VALENTINE	MILLER FIELD	47.2	49.0	1.8
NH	CONCORD	CONCORD MUNICIPAL	45.9	46.5	0.6
NH	MOUNT WASHINGTON	SUMMIT OBSERVATORY	27.2	28.2	1.0
NJ	ATLANTIC CITY	STATE MARINA	55.3	56.0	0.7
NJ	ATLANTIC CITY	AVIATION FACILITIES EXPER CNTR	53.5	54.3	0.8
NJ	NEWARK	INTERNATIONAL AIRPORT	54.5	55.3	0.8
NM	ALBUQUERQUE	INTL AIRPORT-KIRTLAND AFB	56.8	58.5	1.7
NM	CLAYTON	MUNICIPAL AIRPORT	53.3	54.9	1.6
NM	ROSWELL	INDUSTRIAL AIR CENTER AP	60.8	62.1	1.3
NV	ELKO	MUNICIPAL AIRPORT	46.4	47.1	0.7
NV	ELY	YELLAND FIELD	44.8	46.0	1.2
NV	LAS VEGAS	MCCARRAN INTERNATIONAL APT	68.1	69.8	1.7
NV	RENO	CANNON INTERNATIONAL AP	51.3	54.7	3.4
NV	WINNEMUCCA	MUNICIPAL AIRPORT	49.3	49.9	0.6
NY	ALBANY	ALBANY INTERNATIONAL AIRPT	47.5	48.6	1.1
NY	BINGHAMTON	BROOME COUNTY AIRPORT	45.8	46.5	0.7
NY	BUFFALO	GREATER BUFFALO INTL AIRPORT	47.9	48.6	0.7
NY	ISLIP	LONG ISLAND MACARTHUR APT	52.4	52.4	-0.04
NY	NEW YORK	JFK INTERNATIONAL AIRPORT	53.5	54.2	0.7
NY	NEW YORK	LA GUARDIA AIRPORT	55.1	55.9	0.8
NY	NEW YORK C.PARK	CENTRAL PARK OBSERVATORY	54.6	55.2	0.6
NY	ROCHESTER	ROCHESTER-MONROE COUNTY AP	47.6	48.6	1.0
NY	SYRACUSE	HANCOCK INTERNATIONAL AIRPORT	47.4	48.8	1.4
OH	AKRON	AKRON-CANTON AIRPORT	49.5	50.1	0.6
OH	CLEVELAND	CLEVELAND HOPKINS INTL AIRPORT	49.6	51.0	1.4
OH	COLUMBUS	PORT COLUMBUS INTL AIRPORT	52.9	53.4	0.5
OH	COVINGTON/CINCINNATI	CINCINNATI/NORTHERN KY INT	54.2	54.3	0.1
OH	DAYTON	INTERNATIONAL AIRPORT	51.5	52.3	0.8
OH	MANSFIELD	LAHM MUNICIPAL AIRPORT	48.7	49.8	1.1
OH	TOLEDO	TOLEDO EXPRESS AIRPORT	49.5	50.8	1.3
OH	YOUNGSTOWN	MUNICIPAL AIRPORT	48.5	49.5	1.0
OK	OKLAHOMA CITY	WILL ROGERS WORLD AIRPORT	60.1	60.8	0.7

State	City	Location	Normal Average Temperature (°F); 1971-2000	Average Temperature (°F); 2000-2005	Degrees Above Normal (°F)
OK	TULSA	INTERNATIONAL AIRPORT	60.8	61.4	0.6
OR	ASTORIA	CLATSOP COUNTY AIRPORT	51.0	52.1	1.1
OR	BURNS	MUNICIPAL APT.	44.2	45.2	1.0
OR	EUGENE	MAHLON SWEET FIELD	52.1	53.0	0.9
OR	MEDFORD	ROGUE VALLEY INTNRL AIRPT	54.4	56.0	1.6
OR	PENDLETON	MUNICIPAL AIRPORT	52.3	52.7	0.4
OR	PORTLAND	INTERNATIONAL AIRPORT	53.5	54.8	1.3
OR	SALEM	MC NARY FIELD	52.6	53.4	0.8
PA	ALLENTOWN	LEHIGH VALLEY INTRNL AIRPT	50.6	51.7	1.1
PA	AVOCA	WILKES-BARRE SCRANTON APT	49.9	49.9	-0.02
PA	ERIE	TERMINAL BLDG.	50.0	50.0	0.02
PA	MIDDLETOWN/HARRISBURG	HARRISBURG INTL AIRPORT	53.3	53.8	0.5
PA	PHILADELPHIA	INTERNATIONAL AIRPORT	55.3	56.2	0.9
PA	PITTSBURGH	GREATER PITTSBURGH INTL AP	50.9	51.7	0.8
PA	WILLIAMSPORT	WILLIAMSPORT-LYCOMING CO AP	49.8	50.9	1.1
RI	PROVIDENCE	THEO FRANCIS GREEN STATE AP	51.1	51.6	0.5
SC	CHARLESTON	DOWNTOWN	67.0	67.3	0.3
SC	CHARLESTON	CHARLESTON INT'L AIRPORT	65.3	66.1	0.8
SC	COLUMBIA	COLUMBIA METROPOLITAN AIRPORT	63.6	64.1	0.5
SC	GREENVILLE-SPARTANBURG	GREER AIRPORT	60.0	61.2	1.2
SD	ABERDEEN	REGIONAL AIRPORT	43.8	44.0	0.2
SD	HURON	HURON REGIONAL AIRPORT	45.3	46.8	1.5
SD	RAPID CITY	RAPID CITY REGIONAL AIRPORT	46.6	48.1	1.5
SD	SIOUX FALLS	FOSS FIELD	45.1	46.8	1.7
TN	BRISTOL-JHNSN CTY-KN	TRI-CITY AIRPORT	54.9	56.3	1.4
TN	CHATTANOOGA	LOVELL FIELD	60.0	61.4	1.4
TN	KNOXVILLE	MC GHEE TYSON AIRPORT	58.4	59.5	1.1
TN	MEMPHIS	INTERNATIONAL AIRPORT	62.3	63.4	1.1
TN	NASHVILLE	METROPOLITAN AIRPORT	58.9	60.1	1.2
TN	OAK RIDGE*	OAK RIDGE*	57.6	59.1	1.5
TX	ABILENE	MUNICIPAL AIRPORT	64.4	65.0	0.6
TX	AMARILLO	INTERNATIONAL AIRPORT	57.0	58.2	1.2
TX	AUSTIN/BERGSTROM	AUSTIN-BERGSTROM INTL APT	69.0	67.9	-1.1
TX	BROWNSVILLE	BROWNSVILLE AIRPORT	73.3	75.4	2.1
TX	CORPUS CHRISTI	INTERNATIONAL AIRPORT	71.5	72.7	1.2
TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	65.5	66.7	1.2
TX	DEL RIO	INTERNATIONAL AIRPORT	69.7	71.2	1.5
TX	EL PASO	INTERNATIONAL AIRPORT	64.7	65.5	0.8
TX	HOUSTON	INTERCONTINENTAL AIRPORT	68.8	69.9	1.1
TX	LUBBOCK	REGIONAL AIRPORT	59.7	61.4	1.7
TX	MIDLAND-ODESSA	MIDLAND INTERNATIONAL AIRPORT	63.4	64.6	1.2
TX	PORT ARTHUR	JEFFERSON COUNTY AIRPORT	68.6	69.6	1.0
TX	SAN ANGELO	MATHIS FIELD	64.5	66.0	1.5
TX	SAN ANTONIO	INTERNATIONAL AIRPORT	68.7	69.7	1.0
TX	VICTORIA	VICTORIA REGIONAL AIRPORT	70.0	70.8	0.8
TX	WACO	WACO REGIONAL AIRPORT	66.6	67.5	0.9
TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	63.1	64.3	1.2

State	City	Location	Normal Average Temperature (°F); 1971-2000	Average Temperature (°F); 2000-2005	Degrees Above Normal (°F)
UT	SALT LAKE CITY	INTERNATIONAL AIRPORT	52.0	53.5	1.5
VA	LYNCHBURG	MUNICIPAL AIRPORT	55.4	55.9	0.5
VA	NORFOLK	INTERNATIONAL AIRPORT	59.6	60.7	1.1
VA	RICHMOND	R.E.BYRD INTERNATIONAL AP.	57.6	58.9	1.3
VA	ROANOKE	WOODRUM AIRPORT	56.3	57.4	1.1
VT	BURLINGTON	INTERNATIONAL AIRPORT	45.2	46.1	0.9
WA	OLYMPIA	OLYMPIA AIRPORT	49.6	50.4	0.8
WA	QUILLAYUTE	QUILLAYUTE STATE AIRPORT	49.1	49.6	0.5
WA	SEATTLE	SEATTLE-TACOMA AIRPORT	52.3	52.5	0.2
WA	SPOKANE	INTERNATIONAL AIRPORT	47.3	47.9	0.6
WA	YAKIMA	YAKIMA MUNICIPAL AIRPORT	48.9	50.5	1.6
WI	GREEN BAY	AUSTIN STRAUBEL FIELD	44.4	45.5	1.1
WI	LA CROSSE	MUNICIPAL AIRPORT	47.3	48.4	1.1
WI	MADISON	DANE COUNTY REGIONAL AIRPORT	46.1	47.5	1.4
WI	MILWAUKEE	GENERAL MITCHELL FIELD	47.5	48.6	1.1
WV	BECKLEY	RALEIGH COUNTY MEMORIAL AP	51.6	51.9	0.3
WV	CHARLESTON	YEAGER AIRPORT	54.5	55.7	1.2
WV	ELKINS	ELKINS-RANDOLPH COUNTY APT	49.8	50.8	1.0
WV	HUNTINGTON	TRI-STATE AIRPORT	55.0	56.2	1.2
WY	CASPER	NATRONA COUNTY INT'L AIRPORT	44.9	46.2	1.3
WY	CHEYENNE	MUNICIPAL AIRPORT	44.9	47.4	2.5
WY	LANDER	HUNT FIELD	45.0	45.8	0.8
WY	SHERIDAN	SHERIDAN COUNTY AIRPORT	44.5	45.9	1.4

* The 2001 data for the Oak Ridge station in Tennessee was missing temperature data for July.

Appendix B. Average Temperatures (January-June 2006) Compared with Historical Normals (January-June 1971-2000): By Weather Station

State	City	Location	Normal Average Temperature (°F): Jan-June, 1971-2000	Average Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
AK	ANCHORAGE	ANCHORAGE INTL AP	33.1	32.8	-0.3
AK	ANNETTE	ANNETTE ISLAND AP	43.2	43.4	0.2
AK	BARROW	BARROW W POST-W ROGERS ARPT	1.9	3.5	1.7
AK	BETHEL	BETHEL AIRPORT	24.6	22.5	-2.1
AK	BETTLES	BETTLES FIELD	18.3	15.9	-2.4
AK	BIG DELTA	BIG DELTA ALLEN AAF	25.2	24.6	-0.6
AK	COLD BAY	COLD BAY ARPT	34.2	33.7	-0.5
AK	FAIRBANKS	FAIRBANKS INTL ARPT	23.0	20.9	-2.1
AK	GULKANA	GULKANA INTERMEDIATE FIELD	23.7	22.6	-1.1
AK	HOMER	HOMER ARPT	34.6	35.1	0.5
AK	JUNEAU	JUNEAU INT'L ARPT	38.5	38.1	-0.4
AK	KING SALMON	KING SALMON ARPT	30.3	28.1	-2.3
AK	KODIAK	KODIAK	37.0	36.6	-0.4
AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMORIAL	13.6	11.8	-1.8
AK	MCGRATH	MCGRATH ARPT	22.7	21.1	-1.6
AK	NOME	NOME MUNICIPAL ARPT	20.8	17.3	-3.5
AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	29.9	29.9	0.1
AK	TALKEETNA	TALKEETNA STATE ARPT	30.7	30.7	-0.0002
AK	VALDEZ	VALDEZ	35.4	35.4	0.04
AK	YAKUTAT	YAKUTAT STATE ARPT	36.0	36.7	0.7
AL	BIRMINGHAM	INTERNATIONAL AIRPORT	58.5	61.9	3.4
AL	HUNTSVILLE	INTNAL/JONES FIELD	56.9	59.7	2.8
AL	MOBILE	BATES FIELD	63.8	66.4	2.6
AL	MONTGOMERY	DANNELLY FIELD	61.8	63.7	1.9
AR	FORT SMITH	MUNICIPAL AIRPORT	57.1	60.6	3.6
AR	LITTLE ROCK	ADAMS FIELD	58.1	61.5	3.4
AZ	FLAGSTAFF	PULLIAM AIRPORT	42.1	43.7	1.6
AZ	PHOENIX	SKY HARBOR INTL AIRPORT	70.4	72.6	2.2
AZ	TUCSON	INTERNATIONAL AIRPORT	65.1	68.1	3.1
AZ	WINSLOW	WINSLOW AIRPORT	51.4	53.3	2.0
CA	BAKERSFIELD	KERN COUNTY AIR TERMINAL	61.5	61.9	0.3
CA	BISHOP	BISHOP AIRPORT	52.6	52.2	-0.4
CA	EUREKA	DOWNTOWN	51.1	51.4	0.3
CA	FRESNO	FRESNO AIR TERMINAL	59.8	60.8	1.0
CA	LONG BEACH	LONG BEACH AIRPORT	62.3	61.3	-1.0
CA	LOS ANGELES	DOWNTOWN L.A./USC CAMPUS	63.3	62.6	-0.7
CA	LOS ANGELES	INTERNATIONAL AIRPORT	60.6	61.0	0.4
CA	REDDING	REDDING MUNICIPAL	57.7	58.9	1.2
CA	SACRAMENTO	EXECUTIVE AIRPORT	58.0	58.1	0.1
CA	SAN DIEGO	LINDBERGH FIELD	61.9	61.9	0.02
CA	SAN FRANCISCO	DOWNTOWN SF	56.6	55.4	-1.2
CA	SAN FRANCISCO	INTERNATIONAL AIRPORT	55.4	55.9	0.6
CA	SANTA MARIA	SANTA MARIA PUBLIC AIRPORT	55.5	55.9	0.5
CA	STOCKTON	METROPOLITAN AIRPORT	58.7	59.2	0.6

State	City	Location	Normal Average Temperature (°F): Jan-June, 1971-2000	Average Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	36.8	40.3	3.6
CO	COLORADO SPRINGS	COLORADO SPRINGS MUNICIPAL AP	43.7	47.4	3.8
CO	DENVER	DENVER INTERNATIONAL AP	45.7	48.8	3.1
CO	GRAND JUNCTION	WALKER FIELD	47.7	50.9	3.3
CO	PUEBLO	MEMORIAL AIRPORT	47.5	50.4	2.9
CT	BRIDGEPORT	SIKORSKY MEMORIAL AIRPORT	46.2	48.1	1.9
CT	HARTFORD	BRADLEY INTERNATIONAL AIRPORT	45.0	46.8	1.9
DC	WASHINGTON DC	RONALD REAGAN NATIONAL AP	52.6	55.0	2.4
DC	WASHINGTON DC	DULLES INTERNATIONAL AIRPORT	49.4	53.0	3.6
DE	WILMINGTON	NEW CASTLE COUNTY APRT	49.1	51.6	2.5
FL	DAYTONA BEACH	INTERNATIONAL AIRPORT	67.8	69.1	1.4
FL	FORT MYERS	PAGE FIELD	72.6	72.9	0.3
FL	GAINESVILLE	REGIONAL AIRPORT	65.8	66.5	0.7
FL	JACKSONVILLE	INTERNATIONAL AIRPORT	64.9	66.2	1.3
FL	KEY WEST	INTERNATIONAL AIRPORT	76.0	75.2	-0.8
FL	MIAMI	INTERNATIONAL AIRPORT	74.6	75.0	0.5
FL	ORLANDO	INTERNATIONAL AIRPORT	70.1	70.9	0.8
FL	PENSACOLA	PENSACOLA REGIONAL AIRPT	65.0	68.0	3.0
FL	TALLAHASSEE	MUNICIPAL AIRPORT	64.8	66.4	1.6
FL	TAMPA	INTERNATIONAL AIRPORT	70.3	70.8	0.5
FL	VERO BEACH	MUNICIPAL AIRPORT	70.5	70.4	-0.04
FL	WEST PALM BEACH	PALM BEACH INTERNATIONAL AP	72.9	73.2	0.3
GA	ATHENS	MUNICIPAL AIRPORT	58.0	60.4	2.4
GA	ATLANTA	HARTSFIELD ATLANTA INTL AP	58.7	60.4	1.7
GA	AUGUSTA	BUSH FIELD	59.9	61.3	1.4
GA	COLUMBUS	METROPOLITAN AIRPORT	61.7	64.4	2.7
GA	MACON	MIDDLE GA REGIONAL AIRPORT	60.4	62.4	2.0
GA	SAVANNAH	MUNICIPAL AIRPORT	63.0	63.5	0.5
HI	HILO	HILO INTERNATIONAL AP	72.7	72.5	-0.2
HI	HONOLULU	HONOLULU INTL ARPT	75.4	75.2	-0.2
HI	KAHULUI	KAHULUI AIRPORT	74.1	74.9	0.9
HI	LIHUE	LIHUE AIRPORT	73.9	75.0	1.2
IA	DES MOINES	INTERNATIONAL AIRPORT	44.9	49.6	4.7
IA	DUBUQUE	MUNICIPAL AIRPORT	41.6	44.9	3.3
IA	SIoux CITY	MUNICIPAL AIRPORT	43.6	47.6	4.0
IA	WATERLOO	L.B. MUNICIPAL AIRPORT	41.9	45.3	3.3
ID	BOISE	BOISE AIR TER. (GOWEN FLD.)	47.9	49.8	1.9
ID	LEWISTON	LEWISTON-NEZ PERCE COUNTY AP	48.7	51.3	2.6
ID	POCATELLO	MUNICIPAL AIRPORT	42.2	43.5	1.2
IL	CHICAGO	OHARE INTERNATIONAL AIRPORT	43.5	47.5	4.0
IL	MOLINE	QUAD CITY AIRPORT	45.0	48.9	3.9
IL	PEORIA	GREATER PEORIA AIRPORT	45.8	50.1	4.3
IL	ROCKFORD	GREATER ROCKFORD AIRPORT	42.7	46.4	3.7
IL	SPRINGFIELD	CAPITAL AIRPORT	47.8	51.5	3.7
IN	EVANSVILLE	DRESS REGIONAL AIRPORT	51.4	54.1	2.7
IN	FORT WAYNE	BAER FIELD	44.7	48.0	3.3
IN	INDIANAPOLIS	INTERNATIONAL AIRPORT	47.6	50.7	3.0

State	City	Location	Normal Average Temperature (°F): Jan-June, 1971-2000	Average Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
IN	SOUTH BEND	MICHIANA REGIONAL AIRPORT	44.2	46.9	2.7
KS	CONCORDIA	BLOSSER MUNICIPAL AIRPORT	48.5	53.1	4.7
KS	DODGE CITY	DODGE CITY REGIONAL ARPT	50.4	55.1	4.7
KS	GOODLAND	RENNER FIELD	46.2	50.2	4.1
KS	TOPEKA	MUNICIPAL(PHILIP BILLARD)AP	49.6	54.2	4.6
KS	WICHITA	MID-CONTINENT AIRPORT	51.4	56.2	4.9
KY	JACKSON	JULIAN CARROLL AP	51.8	55.0	3.2
KY	LEXINGTON	BLUE GRASS FIELD	50.8	52.6	1.8
KY	LOUISVILLE	STANDIFORD FIELD	52.3	55.1	2.8
KY	PADUCAH	BARKLEY REGIONAL ARPT	52.7	56.0	3.3
LA	BATON ROUGE	RYAN AIRPORT	64.0	67.9	3.8
LA	LAKE CHARLES	MUNICIPAL AIRPORT	64.8	67.8	2.9
LA	NEW ORLEANS	NEW ORLEANS INT'L AIRPORT	65.9	69.5	3.7
LA	SHREVEPORT	SHREVEPORT REGIONAL AIRPORT	62.4	65.6	3.2
MA	BLUE HILL	MILTON OBS	43.3	45.7	2.4
MA	BOSTON	GEN LOGAN INTERNATIONAL AP	45.8	47.1	1.3
MA	WORCESTER	WORCESTER REGIONAL AIRPORT	41.7	44.5	2.8
MD	BALTIMORE	BALTIMORE-WASHINGTON INT'L AP	49.9	53.1	3.2
ME	CARIBOU	MUNICIPAL AIRPORT	32.9	37.2	4.3
ME	PORTLAND	PORTLAND INTERNATIONAL JETPORT	40.1	42.9	2.8
MI	ALPENA	PHELPS COLLINS AIRPORT	36.4	40.8	4.4
MI	DETROIT	METROPOLITAN AIRPORT	44.3	47.8	3.6
MI	FLINT	BISHOP AIRPORT	41.3	44.3	3.0
MI	GRAND RAPIDS	KENT COUNTY AIRPORT	42.3	45.7	3.4
MI	HOUGHTON LAKE	ROSCOMMON COUNTY APRT	37.5	40.9	3.5
MI	LANSING	CAPITAL CITY AIRPORT	41.4	45.2	3.8
MI	MARQUETTE	COUNTY AIRPORT	32.7	37.4	4.8
MI	MUSKEGON	MUSKEGON COUNTY AIRPORT	41.5	44.9	3.5
MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	33.7	38.5	4.8
MN	DULUTH	INTERNATIONAL AIRPORT	33.2	37.9	4.7
MN	INTERNATIONAL FALLS	FALLS INTERNATIONAL AP	31.9	35.5	3.6
MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	39.9	45.0	5.1
MN	ROCHESTER	MUNICIPAL AIRPORT	38.1	43.5	5.4
MN	SAINT CLOUD	MUNICIPAL AIRPORT	36.4	41.7	5.3
MO	COLUMBIA	COLUMBIA REGIONAL AIRPORT	49.4	53.7	4.3
MO	KANSAS CITY	INTERNATIONAL AIRPORT	49.3	55.2	5.9
MO	SPRINGFIELD	REGIONAL AIRPORT	51.5	55.6	4.2
MO	ST. LOUIS	INTERNATIONAL AIRPORT	51.6	55.0	3.4
MS	JACKSON	ALLEN C THOMPSON FIELD	60.7	63.5	2.8
MS	MERIDIAN	KEY FIELD	61.3	63.5	2.3
MS	TUPELO	TUPLO MUNI/LEMONS AIRPORT	57.6	61.7	4.1
MT	BILLINGS	INTERNATIONAL AIRPORT	43.0	46.8	3.8
MT	GLASGOW	INT'L AIRPORT	37.5	42.5	5.0
MT	GREAT FALLS	INTERNATIONAL AIRPORT	39.3	43.5	4.3
MT	HELENA	HELENA AIRPORT	40.0	45.2	5.2
MT	KALISPELL	GLACIER PARK INT'L AIRPORT	39.3	41.9	2.6
MT	MISSOULA	MISSOULA INT'L AIRPORT	41.4	44.2	2.8

State	City	Location	Normal Average Temperature (°F): Jan-June, 1971-2000	Average Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
NC	ASHEVILLE	ASHEVILLE REGIONAL AIRPORT	51.1	53.4	2.4
NC	CAPE HATTERAS	WEATHER SERVICE BUILDING	57.9	58.5	0.5
NC	CHARLOTTE	DOUGLAS INTERNATIONAL AIRPORT	57.7	57.8	0.2
NC	GREENSBORO-WNSTN-SAL	GREENSBORO REG. AP, NC	54.2	57.2	3.0
NC	RALEIGH	RALEIGH-DURHAM AIRPORT	55.7	57.8	2.1
NC	WILMINGTON	NEW HANOVER COUNTY AIRPORT	59.9	60.6	0.7
ND	BISMARCK	MUNICIPAL AIRPORT	37.0	42.5	5.5
ND	FARGO	HECTOR AIRPORT	35.8	40.0	4.1
ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	35.7	40.6	4.9
NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	45.1	50.6	5.5
NE	LINCOLN	MUNICIPAL AIRPORT	46.0	50.3	4.3
NE	NORFOLK	KARL STEFAN MEMORIAL AIRPORT	43.9	49.0	5.1
NE	NORTH PLATTE	LEE BIRD FIELD	44.2	48.3	4.1
NE	OMAHA	EPPLEY AIRFIELD	45.8	50.5	4.7
NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	43.7	46.5	2.9
NE	VALENTINE	MILLER FIELD	42.3	46.1	3.8
NH	CONCORD	CONCORD MUNICIPAL	40.4	42.9	2.6
NH	MOUNT WASHINGTON	SUMMIT OBSERVATORY	21.4	23.1	1.8
NJ	ATLANTIC CITY	STATE MARINA	49.5	51.8	2.3
NJ	ATLANTIC CITY	AVIATION FACILITIES EXPER CNTR	48.2	51.0	2.9
NJ	NEWARK	INTERNATIONAL AIRPORT	49.0	51.9	2.9
NM	ALBUQUERQUE	INTL AIRPORT-KIRTLAND AFB	53.4	56.8	3.4
NM	CLAYTON	MUNICIPAL AIRPORT	49.6	53.7	4.2
NM	ROSWELL	INDUSTRIAL AIR CENTER AP	57.8	61.9	4.1
NV	ELKO	MUNICIPAL AIRPORT	42.4	44.9	2.5
NV	ELY	YELLAND FIELD	40.6	41.6	1.1
NV	LAS VEGAS	MCCARRAN INTERNATIONAL APT	64.1	66.4	2.3
NV	RENO	CANNON INTERNATIONAL AP	47.5	50.6	3.1
NV	WINNEMUCCA	MUNICIPAL AIRPORT	45.6	45.8	0.3
NY	ALBANY	ALBANY INTERNATIONAL AIRPT	42.2	45.4	3.2
NY	BINGHAMTON	BROOME COUNTY AIRPORT	40.4	42.8	2.4
NY	BUFFALO	GREATER BUFFALO INTL AIRPORT	42.1	45.9	3.8
NY	ISLIP	LONG ISLAND MACARTHUR APT	46.7	48.3	1.7
NY	NEW YORK	JFK INTERNATIONAL AIRPORT	47.5	50.0	2.6
NY	NEW YORK	LA GUARDIA AIRPORT	49.3	52.9	3.6
NY	NEW YORK C.PARK	CENTRAL PARK OBSERVATORY	49.3	51.8	2.6
NY	ROCHESTER	ROCHESTER-MONROE COUNTY AP	41.9	46.0	4.2
NY	SYRACUSE	HANCOCK INTERNATIONAL AIRPORT	41.5	44.9	3.4
OH	AKRON	AKRON-CANTON AIRPORT	44.3	46.9	2.6
OH	CLEVELAND	CLEVELAND HOPKINS INTL AIRPORT	44.2	47.4	3.2
OH	COLUMBUS	PORT COLUMBUS INTL AIRPORT	48.0	50.5	2.5
OH	COVINGTON/CINCINNATI	CINCINNATI/NORTHERN KY INT	49.5	51.6	2.1
OH	DAYTON	INTERNATIONAL AIRPORT	46.5	49.0	2.6
OH	MANSFIELD	LAHM MUNICIPAL AIRPORT	43.4	46.7	3.3
OH	TOLEDO	TOLEDO EXPRESS AIRPORT	44.1	47.9	3.8
OH	YOUNGSTOWN	MUNICIPAL AIRPORT	43.4	46.2	2.8
OK	OKLAHOMA CITY	WILL ROGERS WORLD AIRPORT	55.8	61.0	5.1

State	City	Location	Normal Average Temperature (°F): Jan-June, 1971-2000	Average Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
OK	TULSA	INTERNATIONAL AIRPORT	56.3	60.5	4.1
OR	ASTORIA	CLATSOP COUNTY AIRPORT	48.4	49.3	0.9
OR	BURNS	MUNICIPAL APT.	40.6	41.7	1.1
OR	EUGENE	MAHLON SWEET FIELD	49.0	49.9	1.0
OR	MEDFORD	ROGUE VALLEY INTNRL AIRPT	50.8	52.5	1.7
OR	PENDLETON	MUNICIPAL AIRPORT	48.7	49.7	1.0
OR	PORTLAND	INTERNATIONAL AIRPORT	50.2	52.4	2.2
OR	SALEM	MC NARY FIELD	49.4	50.7	1.3
PA	ALLENTOWN	LEHIGH VALLEY INTRNL AIRPT	45.5	49.0	3.5
PA	AVOCA	WILKES-BARRE SCRANTON APT	44.8	46.5	1.7
PA	ERIE	TERMINAL BLDG.	44.0	46.1	2.1
PA	MIDDLETOWN/HARRISBURG	HARRISBURG INTERNATIONAL AIRPORT	48.3	50.8	2.6
PA	PHILADELPHIA	INTERNATIONAL AIRPORT	49.9	52.7	2.9
PA	PITTSBURGH	GREATER PITTSBURGH INTL AP	46.0	47.8	1.8
PA	WILLIAMSPORT	WILLIAMSPORT-LYCOMING CO AP	44.7	47.8	3.1
RI	PROVIDENCE	THEO FRANCIS GREEN STATE AP	45.6	47.8	2.3
SC	CHARLESTON	DOWNTOWN	63.3	64.4	1.1
SC	CHARLESTON	CHARLESTON INT'L AIRPORT	61.8	63.6	1.8
SC	COLUMBIA	COLUMBIA METROPOLITAN AIRPORT	60.2	61.5	1.3
SC	GREENVILLE-SPARTANBURG	GREER AIRPORT	56.3	59.3	3.0
SD	ABERDEEN	REGIONAL AIRPORT	38.4	42.7	4.3
SD	HURON	HURON REGIONAL AIRPORT	40.0	44.8	4.8
SD	RAPID CITY	RAPID CITY REGIONAL AIRPORT	41.5	45.8	4.3
SD	SIOUX FALLS	FOSS FIELD	39.7	44.9	5.1
TN	BRISTOL-JHNSN CTY-KN	TRI-CITY AIRPORT	51.2	53.0	1.9
TN	CHATTANOOGA	LOVELL FIELD	56.2	58.9	2.7
TN	KNOXVILLE	MC GHEE TYSON AIRPORT	54.5	57.2	2.7
TN	MEMPHIS	INTERNATIONAL AIRPORT	58.3	61.5	3.2
TN	NASHVILLE	METROPOLITAN AIRPORT	54.8	57.8	3.0
TN	OAK RIDGE	OAK RIDGE	53.7	56.8	3.1
TX	ABILENE	MUNICIPAL AIRPORT	61.0	64.6	3.7
TX	AMARILLO	INTERNATIONAL AIRPORT	53.3	56.4	3.1
TX	AUSTIN/BERGSTROM	AUSTIN-BERGSTROM INTL APT	65.9	67.8	2.0
TX	BROWNSVILLE	BROWNSVILLE AIRPORT	71.2	74.9	3.8
TX	CORPUS CHRISTI	INTERNATIONAL AIRPORT	68.8	73.1	4.3
TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	61.7	67.0	5.3
TX	DEL RIO	INTERNATIONAL AIRPORT	67.1	71.0	4.0
TX	EL PASO	INTERNATIONAL AIRPORT	62.2	65.6	3.4
TX	HOUSTON	INTERCONTINENTAL AIRPORT	65.9	68.9	3.0
TX	LUBBOCK	REGIONAL AIRPORT	56.5	61.3	4.8
TX	MIDLAND-ODESSA	MIDLAND INTERNATIONAL AIRPORT	60.6	64.1	3.5
TX	PORT ARTHUR	JEFFERSON COUNTY AIRPORT	65.8	68.3	2.5
TX	SAN ANGELO	MATHIS FIELD	61.5	65.7	4.2
TX	SAN ANTONIO	INTERNATIONAL AIRPORT	65.5	70.4	4.9
TX	VICTORIA	VICTORIA REGIONAL AIRPORT	67.0	69.4	2.4
TX	WACO	WACO REGIONAL AIRPORT	62.8	66.8	4.0
TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	59.0	64.6	5.6

State	City	Location	Normal Average Temperature (°F): Jan-June, 1971-2000	Average Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
UT	SALT LAKE CITY	INTERNATIONAL AIRPORT	47.4	50.1	2.6
VA	LYNCHBURG	MUNICIPAL AIRPORT	51.3	53.2	1.8
VA	NORFOLK	INTERNATIONAL AIRPORT	54.9	57.1	2.2
VA	RICHMOND	R.E.BYRD INTERNATIONAL AP.	53.3	56.2	2.9
VA	ROANOKE	WOODRUM AIRPORT	52.4	54.9	2.6
VT	BURLINGTON	INTERNATIONAL AIRPORT	39.0	42.6	3.6
WA	OLYMPIA	OLYMPIA AIRPORT	46.9	48.5	1.6
WA	QUILLAYUTE	QUILLAYUTE STATE AIRPORT	46.6	47.6	1.1
WA	SEATTLE	SEATTLE-TACOMA AIRPORT	49.5	51.1	1.6
WA	SPOKANE	INTERNATIONAL AIRPORT	43.6	45.6	2.0
WA	YAKIMA	YAKIMA MUNICIPAL AIRPORT	45.8	47.6	1.8
WI	GREEN BAY	AUSTIN STRAUBEL FIELD	38.9	42.8	3.9
WI	LA CROSSE	MUNICIPAL AIRPORT	42.0	45.5	3.6
WI	MADISON	DANE COUNTY REGIONAL AIRPORT	40.7	44.3	3.6
WI	MILWAUKEE	GENERAL MITCHELL FIELD	41.4	45.1	3.7
WV	BECKLEY	RALEIGH COUNTY MEMORIAL AP	47.5	48.6	1.1
WV	CHARLESTON	YEAGER AIRPORT	50.4	52.9	2.5
WV	ELKINS	ELKINS-RANDOLPH COUNTY APT	45.4	47.2	1.7
WV	HUNTINGTON	TRI-STATE AIRPORT	50.9	53.6	2.7
WY	CASPER	NATRONA COUNTY INT'L AIRPORT	40.3	43.1	2.9
WY	CHEYENNE	MUNICIPAL AIRPORT	40.6	44.2	3.6
WY	LANDER	HUNT FIELD	40.4	43.7	3.3
WY	SHERIDAN	SHERIDAN COUNTY AIRPORT	40.3	44.6	4.4

Appendix C. Average Minimum Temperatures (2000-2005) Compared with Historical Normals (1971-2000): By Weather Station

State	City	Location	Normal Average Minimum Temperature (°F): 1971-2000	Average Minimum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
AK	ANCHORAGE	ANCHORAGE INTL AP	29.3	31.9	2.6
AK	ANNETTE	ANNETTE ISLAND AP	40.7	41.9	1.2
AK	BARROW	BARROW W POST-W ROGERS ARPT	5.0	7.1	2.1
AK	BETHEL	BETHEL AIRPORT	23.3	25.4	2.1
AK	BETTLES	BETTLES FIELD	13.4	14.7	1.3
AK	BIG DELTA	BIG DELTA ALLEN AAF	19.7	22.7	3.0
AK	COLD BAY	COLD BAY ARPT	33.7	34.9	1.2
AK	FAIRBANKS	FAIRBANKS INTL ARPT	16.2	19.2	3.0
AK	GULKANA	GULKANA INTERMEDIATE FIELD	16.8	19.0	2.2
AK	HOMER	HOMER ARPT	31.4	33.4	2.0
AK	JUNEAU	JUNEAU INT'L ARPT	35.3	36.2	0.9
AK	KING SALMON	KING SALMON ARPT	26.6	28.6	2.0
AK	KODIAK	KODIAK	34.9	36.2	1.3
AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMORIAL	15.9	18.7	2.8
AK	MCGRATH	MCGRATH ARPT	17.0	19.7	2.7
AK	NOME	NOME MUNICIPAL ARPT	20.4	22.4	2.0
AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	30.8	33.3	2.5
AK	TALKEETNA	TALKEETNA STATE ARPT	24.5	29.6	5.1
AK	VALDEZ	VALDEZ	32.3	34.1	1.8
AK	YAKUTAT	YAKUTAT STATE ARPT	32.5	34.4	1.9
AL	BIRMINGHAM	INTERNATIONAL AIRPORT	50.9	52.7	1.8
AL	HUNTSVILLE	INTNAL/JONES FIELD	50.1	50.9	0.8
AL	MOBILE	BATES FIELD	56.2	57.3	1.1
AL	MONTGOMERY	DANNELLY FIELD	53.1	53.9	0.8
AR	FORT SMITH	MUNICIPAL AIRPORT	50.2	51.0	0.8
AR	LITTLE ROCK	ADAMS FIELD	51.5	52.4	0.9
AZ	FLAGSTAFF	PULLIAM AIRPORT	30.9	32.1	1.2
AZ	PHOENIX	SKY HARBOR INTL AIRPORT	61.9	64.1	2.2
AZ	TUCSON	INTERNATIONAL AIRPORT	54.8	56.4	1.6
AZ	WINSLOW	WINSLOW AIRPORT	40.0	40.1	0.1
CA	BAKERSFIELD	KERN COUNTY AIR TERMINAL	53.1	53.5	0.4
CA	BISHOP	BISHOP AIRPORT	37.7	38.3	0.6
CA	EUREKA	DOWNTOWN	46.4	46.5	0.1
CA	FRESNO	FRESNO AIR TERMINAL	51.0	52.7	1.7
CA	LONG BEACH	LONG BEACH AIRPORT	55.4	55.3	-0.1
CA	LOS ANGELES	DOWNTOWN L.A./USC CAMPUS	56.6	55.9	-0.7
CA	LOS ANGELES	INTERNATIONAL AIRPORT	56.1	55.9	-0.2
CA	REDDING	REDDING MUNICIPAL	47.9	50.1	2.2
CA	SACRAMENTO	EXECUTIVE AIRPORT	48.4	49.0	0.6
CA	SAN DIEGO	LINDBERGH FIELD	58.1	57.9	-0.2
CA	SAN FRANCISCO	DOWNTOWN SF	51.4	51.1	-0.3
CA	SAN FRANCISCO	INTERNATIONAL AIRPORT	49.6	51.2	1.6
CA	SANTA MARIA	SANTA MARIA PUBLIC AIRPORT	46.1	46.4	0.3
CA	STOCKTON	METROPOLITAN AIRPORT	48.9	48.3	-0.6

State	City	Location	Normal Average Minimum Temperature (°F): 1971-2000	Average Minimum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	22.9	24.4	1.5
CO	COLORADO SPRINGS	COLORADO SPRINGS MUNICIPAL AP	33.7	36.1	2.4
CO	DENVER	DENVER INTERNATIONAL AP	35.8	36.9	1.1
CO	GRAND JUNCTION	WALKER FIELD	38.5	40.7	2.2
CO	PUEBLO	MEMORIAL AIRPORT	35.9	35.5	-0.4
CT	BRIDGEPORT	SIKORSKY MEMORIAL AIRPORT	44.3	44.8	0.5
CT	HARTFORD	BRADLEY INTERNATIONAL AIRPORT	40.0	40.3	0.3
DC	WASHINGTON DC	RONALD REAGAN NATIONAL AP	48.6	49.5	0.9
DC	WASHINGTON DC	DULLES INTERNATIONAL AIRPORT	42.6	44.5	1.9
DE	WILMINGTON	NEW CASTLE COUNTY APRT	45.1	45.4	0.3
FL	DAYTONA BEACH	INTERNATIONAL AIRPORT	61.0	61.9	0.9
FL	FORT MYERS	PAGE FIELD	65.2	65.1	-0.1
FL	GAINESVILLE	REGIONAL AIRPORT	57.2	57.4	0.2
FL	JACKSONVILLE	INTERNATIONAL AIRPORT	57.6	57.6	0.03
FL	KEY WEST	INTERNATIONAL AIRPORT	73.2	73.0	-0.2
FL	MIAMI	INTERNATIONAL AIRPORT	69.1	70.1	1.0
FL	ORLANDO	INTERNATIONAL AIRPORT	62.4	62.6	0.2
FL	PENSACOLA	PENSACOLA REGIONAL AIRPT	59.2	59.3	0.1
FL	TALLAHASSEE	MUNICIPAL AIRPORT	56.3	56.2	-0.1
FL	TAMPA	INTERNATIONAL AIRPORT	64.8	64.8	0.05
FL	VERO BEACH	MUNICIPAL AIRPORT	64.0	63.8	-0.2
FL	WEST PALM BEACH	PALM BEACH INTERNATIONAL AP	67.4	68.0	0.6
GA	ATHENS	MUNICIPAL AIRPORT	50.9	51.3	0.4
GA	ATLANTA	HARTSFIELD ATLANTA INTL AP	52.3	53.1	0.8
GA	AUGUSTA	BUSH FIELD	50.6	51.0	0.4
GA	COLUMBUS	METROPOLITAN AIRPORT	54.4	55.5	1.1
GA	MACON	MIDDLE GA REGIONAL AIRPORT	52.0	52.8	0.8
GA	SAVANNAH	MUNICIPAL AIRPORT	55.2	55.5	0.3
HI	HILO	HILO INTERNATIONAL AP	66.7	67.0	0.3
HI	HONOLULU	HONOLULU INTL ARPT	70.2	71.9	1.7
HI	KAHULUI	KAHULUI AIRPORT	67.3	67.4	0.1
HI	LIHUE	LIHUE AIRPORT	70.3	70.7	0.4
IA	DES MOINES	INTERNATIONAL AIRPORT	40.2	41.5	1.3
IA	DUBUQUE	MUNICIPAL AIRPORT	37.7	38.2	0.5
IA	SIoux CITY	MUNICIPAL AIRPORT	37.0	37.6	0.6
IA	WATERLOO	L.B. MUNICIPAL AIRPORT	36.1	37.4	1.3
ID	BOISE	BOISE AIR TER. (GOWEN FLD.)	41.3	41.9	0.6
ID	LEWISTON	LEWISTON-NEZ PERCE COUNTY AP	42.4	42.9	0.5
ID	POCATELLO	MUNICIPAL AIRPORT	33.3	33.3	-0.01
IL	CHICAGO	OHARE INTERNATIONAL AIRPORT	39.8	41.1	1.3
IL	MOLINE	QUAD CITY AIRPORT	39.9	41.1	1.2
IL	PEORIA	GREATER PEORIA AIRPORT	40.9	42.7	1.8
IL	ROCKFORD	GREATER ROCKFORD AIRPORT	38.1	39.1	1.0
IL	SPRINGFIELD	CAPITAL AIRPORT	42.9	43.0	0.1
IN	EVANSVILLE	DRESS REGIONAL AIRPORT	45.2	46.4	1.2
IN	FORT WAYNE	BAER FIELD	40.2	40.7	0.5
IN	INDIANAPOLIS	INTERNATIONAL AIRPORT	42.7	44.2	1.5

State	City	Location	Normal Average Minimum Temperature (°F): 1971-2000	Average Minimum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
IN	SOUTH BEND	MICHIANA REGIONAL AIRPORT	40.1	40.9	0.8
KS	CONCORDIA	BLOSSER MUNICIPAL AIRPORT	42.4	43.5	1.1
KS	DODGE CITY	DODGE CITY REGIONAL ARPT	42.7	42.6	-0.1
KS	GOODLAND	RENNER FIELD	37.4	38.1	0.7
KS	TOPEKA	MUNICIPAL(PHILIP BILLARD)AP	43.3	44.7	1.4
KS	WICHITA	MID-CONTINENT AIRPORT	45.2	46.3	1.1
KY	JACKSON	JULIAN CARROLL AP	46.6	47.7	1.1
KY	LEXINGTON	BLUE GRASS FIELD	45.7	46.2	0.5
KY	LOUISVILLE	STANDIFORD FIELD	47.9	49.0	1.1
KY	PADUCAH	BARKLEY REGIONAL ARPT	46.0	47.4	1.4
LA	BATON ROUGE	RYAN AIRPORT	56.8	57.2	0.4
LA	LAKE CHARLES	MUNICIPAL AIRPORT	58.3	59.1	0.8
LA	NEW ORLEANS	NEW ORLEANS INT'L AIRPORT	59.6	61.3	1.7
LA	SHREVEPORT	SHREVEPORT REGIONAL AIRPORT	55.1	55.9	0.8
MA	BLUE HILL	MILTON OBS	40.3	41.0	0.7
MA	BOSTON	GEN LOGAN INTERNATIONAL AP	43.9	43.9	0.05
MA	WORCESTER	WORCESTER REGIONAL AIRPORT	38.5	39.9	1.4
MD	BALTIMORE	BALTIMORE-WASHINGTON INT'L AP	44.2	45.4	1.2
ME	CARIBOU	MUNICIPAL AIRPORT	29.5	30.2	0.7
ME	PORTLAND	PORTLAND INTERNATIONAL JETPORT	36.3	37.1	0.8
MI	ALPENA	PHELPS COLLINS AIRPORT	32.4	33.7	1.3
MI	DETROIT	METROPOLITAN AIRPORT	41.0	41.8	0.8
MI	FLINT	BISHOP AIRPORT	36.7	38.3	1.6
MI	GRAND RAPIDS	KENT COUNTY AIRPORT	38.4	39.5	1.1
MI	HOUGHTON LAKE	ROSCOMMON COUNTY APRT	32.6	33.6	1.0
MI	LANSING	CAPITAL CITY AIRPORT	36.7	37.8	1.1
MI	MARQUETTE	COUNTY AIRPORT	29.4	31.0	1.6
MI	MUSKEGON	MUSKEGON COUNTY AIRPORT	38.3	40.1	1.8
MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	30.5	33.4	2.9
MN	DULUTH	INTERNATIONAL AIRPORT	29.3	30.9	1.6
MN	INTERNATIONAL FALLS	FALLS INTERNATIONAL AP	26.1	26.9	0.8
MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	35.9	38.4	2.5
MN	ROCHESTER	MUNICIPAL AIRPORT	34.2	35.9	1.7
MN	SAINT CLOUD	MUNICIPAL AIRPORT	31.1	32.9	1.8
MO	COLUMBIA	COLUMBIA REGIONAL AIRPORT	43.1	44.7	1.6
MO	KANSAS CITY	INTERNATIONAL AIRPORT	44.0	45.1	1.1
MO	SPRINGFIELD	REGIONAL AIRPORT	45.0	45.8	0.8
MO	ST. LOUIS	INTERNATIONAL AIRPORT	46.9	48.1	1.2
MS	JACKSON	ALLEN C THOMPSON FIELD	53.2	53.7	0.5
MS	MERIDIAN	KEY FIELD	52.4	52.3	-0.1
MS	TUPELO	TUPLO MUNI/LEMONS AIRPORT	49.9	51.7	1.8
MT	BILLINGS	INTERNATIONAL AIRPORT	36.3	37.0	0.7
MT	GLASGOW	INT'L AIRPORT	31.1	30.8	-0.3
MT	GREAT FALLS	INTERNATIONAL AIRPORT	31.1	32.4	1.3
MT	HELENA	HELENA AIRPORT	31.2	33.9	2.7
MT	KALISPELL	GLACIER PARK INT'L AIRPORT	30.5	31.2	0.7
MT	MISSOULA	MISSOULA INT'L AIRPORT	32.8	33.5	0.7

State	City	Location	Normal Average Minimum Temperature (°F): 1971-2000	Average Minimum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
NC	ASHEVILLE	ASHEVILLE REGIONAL AIRPORT	43.9	45.2	1.3
NC	CAPE HATTERAS	WEATHER SERVICE BUILDING	55.6	56.9	1.3
NC	CHARLOTTE	DOUGLAS INTERNATIONAL AIRPORT	51.0	49.2	-1.8
NC	GREENSBORO-WNSTN-SAL	GREENSBORO REG. AP, NC	47.7	48.9	1.2
NC	RALEIGH	RALEIGH-DURHAM AIRPORT	48.6	49.4	0.8
NC	WILMINGTON	NEW HANOVER COUNTY AIRPORT	53.5	53.6	0.1
ND	BISMARCK	MUNICIPAL AIRPORT	30.1	31.5	1.4
ND	FARGO	HECTOR AIRPORT	31.1	32.2	1.1
ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	28.2	28.5	0.3
NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	38.6	39.7	1.1
NE	LINCOLN	MUNICIPAL AIRPORT	39.3	39.9	0.6
NE	NORFOLK	KARL STEFAN MEMORIAL AIRPORT	37.0	38.7	1.7
NE	NORTH PLATTE	LEE BIRD FIELD	34.4	35.0	0.6
NE	OMAHA	EPPLEY AIRFIELD	39.8	41.2	1.4
NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	32.9	34.4	1.5
NE	VALENTINE	MILLER FIELD	33.2	34.8	1.6
NH	CONCORD	CONCORD MUNICIPAL	34.1	34.8	0.7
NH	MOUNT WASHINGTON	SUMMIT OBSERVATORY	20.4	21.3	0.9
NJ	ATLANTIC CITY	STATE MARINA	49.4	49.6	0.2
NJ	ATLANTIC CITY	AVIATION FACILITIES EXPER CNTR	43.3	44.2	0.9
NJ	NEWARK	INTERNATIONAL AIRPORT	46.7	46.9	0.2
NM	ALBUQUERQUE	INTL AIRPORT-KIRTLAND AFB	43.2	46.3	3.1
NM	CLAYTON	MUNICIPAL AIRPORT	39.6	41.0	1.4
NM	ROSWELL	INDUSTRIAL AIR CENTER AP	45.3	47.2	1.9
NV	ELKO	MUNICIPAL AIRPORT	30.6	31.1	0.5
NV	ELY	YELLAND FIELD	28.0	29.3	1.3
NV	LAS VEGAS	MCCARRAN INTERNATIONAL APT	56.3	58.8	2.5
NV	RENO	CANNON INTERNATIONAL AP	35.2	40.4	5.2
NV	WINNEMUCCA	MUNICIPAL AIRPORT	33.0	33.1	0.1
NY	ALBANY	ALBANY INTERNATIONAL AIRPT	37.5	39.0	1.5
NY	BINGHAMTON	BROOME COUNTY AIRPORT	37.5	38.0	0.5
NY	BUFFALO	GREATER BUFFALO INTL AIRPORT	39.9	40.5	0.6
NY	ISLIP	LONG ISLAND MACARTHUR APT	43.5	43.9	0.4
NY	NEW YORK	LA GUARDIA AIRPORT	48.1	48.9	0.8
NY	NEW YORK	JFK INTERNATIONAL AIRPORT	45.7	46.8	1.1
NY	NEW YORK C.PARK	CENTRAL PARK OBSERVATORY	47.5	47.9	0.4
NY	ROCHESTER	ROCHESTER-MONROE COUNTY AP	38.5	39.6	1.1
NY	SYRACUSE	HANCOCK INTERNATIONAL AIRPORT	37.7	39.3	1.6
OH	AKRON	AKRON-CANTON AIRPORT	40.0	40.9	0.9
OH	CLEVELAND	CLEVELAND HOPKINS INTL AIRPORT	41.2	42.4	1.2
OH	COLUMBUS	PORT COLUMBUS INTL AIRPORT	43.2	44.2	1.0
OH	COVINGTON/CINCINNATI	CINCINNATI/NORTHERN KY INT	44.3	44.7	0.4
OH	DAYTON	INTERNATIONAL AIRPORT	42.3	43.0	0.7
OH	MANSFIELD	LAHM MUNICIPAL AIRPORT	38.9	40.5	1.6
OH	TOLEDO	TOLEDO EXPRESS AIRPORT	40.0	41.1	1.1
OH	YOUNGSTOWN	MUNICIPAL AIRPORT	38.8	39.8	1.0
OK	OKLAHOMA CITY	WILL ROGERS WORLD AIRPORT	49.2	49.5	0.3

State	City	Location	Normal Average Minimum Temperature (°F): 1971-2000	Average Minimum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
OK	TULSA	INTERNATIONAL AIRPORT	50.1	50.6	0.5
OR	ASTORIA	CLATSOP COUNTY AIRPORT	43.8	44.7	0.9
OR	BURNS	MUNICIPAL APT.	29.2	30.1	0.9
OR	EUGENE	MAHLON SWEET FIELD	41.0	41.8	0.8
OR	MEDFORD	ROGUE VALLEY INTNRL AIRPT	41.5	43.2	1.7
OR	PENDLETON	MUNICIPAL AIRPORT	41.5	41.3	-0.2
OR	PORTLAND	INTERNATIONAL AIRPORT	44.8	46.0	1.2
OR	SALEM	MC NARY FIELD	41.7	42.8	1.1
PA	ALLENTOWN	LEHIGH VALLEY INTRNL AIRPT	40.6	41.3	0.7
PA	AVOCA	WILKES-BARRE SCRANTON APT	40.4	40.3	-0.1
PA	ERIE	TERMINAL BLDG.	42.1	42.3	0.2
PA	MIDDLETOWN/HARRISBURG	HARRISBURG INTERNATIONAL AIRPORT	44.1	44.4	0.3
PA	PHILADELPHIA	INTERNATIONAL AIRPORT	47.4	47.4	0.04
PA	PITTSBURGH	GREATER PITTSBURGH INTL AP	41.5	42.3	0.8
PA	WILLIAMSPORT	WILLIAMSPORT-LYCOMING CO AP	40.1	40.9	0.8
RI	PROVIDENCE	THEO FRANCIS GREEN STATE AP	42.0	42.6	0.6
SC	CHARLESTON	DOWNTOWN	60.4	60.8	0.4
SC	CHARLESTON	CHARLESTON INT'L AIRPORT	54.7	55.6	0.9
SC	COLUMBIA	COLUMBIA METROPOLITAN AIRPORT	52.5	52.8	0.3
SC	GREENVILLE-SPARTANBURG	GREER AIRPORT	49.7	50.8	1.1
SD	ABERDEEN	REGIONAL AIRPORT	32.4	32.0	-0.4
SD	HURON	HURON REGIONAL AIRPORT	33.6	34.7	1.1
SD	RAPID CITY	RAPID CITY REGIONAL AIRPORT	34.0	34.3	0.3
SD	SIOUX FALLS	FOSS FIELD	33.0	35.6	2.6
TN	BRISTOL-JHNSN CTY-KN	TRI-CITY AIRPORT	43.4	44.6	1.2
TN	CHATTANOOGA	LOVELL FIELD	49.2	50.7	1.5
TN	KNOXVILLE	MC GHEE TYSON AIRPORT	48.4	49.3	0.9
TN	MEMPHIS	INTERNATIONAL AIRPORT	52.5	53.9	1.4
TN	NASHVILLE	METROPOLITAN AIRPORT	48.8	49.9	1.1
TN	OAK RIDGE*	OAK RIDGE*	46.2	48.0	1.8
TX	ABILENE	MUNICIPAL AIRPORT	52.7	53.3	0.6
TX	AMARILLO	INTERNATIONAL AIRPORT	43.6	44.6	1.0
TX	AUSTIN/BERGSTROM	AUSTIN-BERGSTROM INTL APT	58.4	55.8	-2.6
TX	BROWNSVILLE	BROWNSVILLE AIRPORT	64.6	66.0	1.4
TX	CORPUS CHRISTI	INTERNATIONAL AIRPORT	62.1	63.0	0.9
TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	55.1	56.3	1.2
TX	DEL RIO	INTERNATIONAL AIRPORT	58.5	59.9	1.4
TX	EL PASO	INTERNATIONAL AIRPORT	52.1	52.6	0.5
TX	HOUSTON	INTERCONTINENTAL AIRPORT	58.2	59.9	1.7
TX	LUBBOCK	REGIONAL AIRPORT	46.2	47.9	1.7
TX	MIDLAND-ODESSA	MIDLAND INTERNATIONAL AIRPORT	49.9	51.8	1.9
TX	PORT ARTHUR	JEFFERSON COUNTY AIRPORT	59.2	60.0	0.8
TX	SAN ANGELO	MATHIS FIELD	51.8	53.4	1.6
TX	SAN ANTONIO	INTERNATIONAL AIRPORT	57.5	59.1	1.6
TX	VICTORIA	VICTORIA REGIONAL AIRPORT	60.4	60.1	-0.3
TX	WACO	WACO REGIONAL AIRPORT	55.3	56.5	1.2
TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	50.9	52.2	1.3

State	City	Location	Normal Average Minimum Temperature (°F): 1971-2000	Average Minimum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
UT	SALT LAKE CITY	INTERNATIONAL AIRPORT	41.2	42.4	1.2
VA	LYNCHBURG	MUNICIPAL AIRPORT	44.0	44.5	0.5
VA	NORFOLK	INTERNATIONAL AIRPORT	51.4	52.5	1.1
VA	RICHMOND	R.E.BYRD INTERNATIONAL AP.	47.4	48.3	0.9
VA	ROANOKE	WOODRUM AIRPORT	45.4	47.3	1.9
VT	BURLINGTON	INTERNATIONAL AIRPORT	35.8	36.5	0.7
WA	OLYMPIA	OLYMPIA AIRPORT	39.5	39.9	0.4
WA	QUILLAYUTE	QUILLAYUTE STATE AIRPORT	40.7	41.5	0.8
WA	SEATTLE	SEATTLE-TACOMA AIRPORT	44.8	45.0	0.2
WA	SPOKANE	INTERNATIONAL AIRPORT	37.2	37.7	0.5
WA	YAKIMA	YAKIMA MUNICIPAL AIRPORT	34.7	36.9	2.2
WI	GREEN BAY	AUSTIN STRAUBEL FIELD	34.4	35.7	1.3
WI	LA CROSSE	MUNICIPAL AIRPORT	37.0	38.4	1.4
WI	MADISON	DANE COUNTY REGIONAL AIRPORT	36.4	37.6	1.2
WI	MILWAUKEE	GENERAL MITCHELL FIELD	39.2	40.5	1.3
WV	BECKLEY	RALEIGH COUNTY MEMORIAL AP	42.0	42.5	0.5
WV	CHARLESTON	YEAGER AIRPORT	43.5	45.1	1.6
WV	ELKINS	ELKINS-RANDOLPH COUNTY APT	37.4	38.7	1.3
WV	HUNTINGTON	TRI-STATE AIRPORT	45.1	45.9	0.8
WY	CASPER	NATRONA COUNTY INT'L AIRPORT	31.6	31.8	0.2
WY	CHEYENNE	MUNICIPAL AIRPORT	32.3	34.8	2.5
WY	LANDER	HUNT FIELD	31.9	32.6	0.7
WY	SHERIDAN	SHERIDAN COUNTY AIRPORT	30.6	31.3	0.7

* The 2001 data for the Oak Ridge station in Tennessee was missing temperature data for July.

Appendix D. Average Minimum Temperatures (January-June 2006) Compared with Historical Normals (January-June 1971-2000): By Weather Station

State	City	Location	Normal Average Minimum Temperature (°F): Jan-June, 1971-2000	Average Minimum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
AK	ANCHORAGE	ANCHORAGE INTL AP	25.6	25.7	0.0
AK	ANNETTE	ANNETTE ISLAND AP	37.7	37.5	-0.2
AK	BARROW	BARROW W POST-W ROGERS ARPT	-3.9	-2.8	1.1
AK	BETHEL	BETHEL AIRPORT	17.3	14.9	-2.4
AK	BETTLES	BETTLES FIELD	7.7	5.4	-2.4
AK	BIG DELTA	BIG DELTA ALLEN AAF	15.7	15.7	0.03
AK	COLD BAY	COLD BAY ARPT	29.3	28.0	-1.3
AK	FAIRBANKS	FAIRBANKS INTL ARPT	11.3	9.7	-1.6
AK	GULKANA	GULKANA INTERMEDIATE FIELD	12.5	11.5	-1.0
AK	HOMER	HOMER ARPT	27.9	28.1	0.3
AK	JUNEAU	JUNEAU INT'L ARPT	31.9	31.2	-0.8
AK	KING SALMON	KING SALMON ARPT	22.1	18.2	-3.8
AK	KODIAK	KODIAK	31.6	30.8	-0.8
AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMORIAL	6.9	4.6	-2.2
AK	MCGRATH	MCGRATH ARPT	11.5	10.4	-1.1
AK	NOME	NOME MUNICIPAL ARPT	13.5	9.9	-3.6
AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	25.5	25.2	-0.3
AK	TALKEETNA	TALKEETNA STATE ARPT	20.4	20.9	0.5
AK	VALDEZ	VALDEZ	29.2	28.2	-1.0
AK	YAKUTAT	YAKUTAT STATE ARPT	28.7	29.8	1.2
AL	BIRMINGHAM	INTERNATIONAL AIRPORT	46.9	50.7	3.7
AL	HUNTSVILLE	INTNAL/JONES FIELD	46.2	48.5	2.3
AL	MOBILE	BATES FIELD	53.0	54.8	1.8
AL	MONTGOMERY	DANNELLY FIELD	49.7	50.7	1.1
AR	FORT SMITH	MUNICIPAL AIRPORT	46.1	48.1	2.1
AR	LITTLE ROCK	ADAMS FIELD	47.5	50.4	2.9
AZ	FLAGSTAFF	PULLIAM AIRPORT	26.8	27.5	0.7
AZ	PHOENIX	SKY HARBOR INTL AIRPORT	57.8	59.9	2.1
AZ	TUCSON	INTERNATIONAL AIRPORT	50.5	53.3	2.9
AZ	WINSLOW	WINSLOW AIRPORT	35.7	34.6	-1.1
CA	BAKERSFIELD	KERN COUNTY AIR TERMINAL	49.8	49.9	0.1
CA	BISHOP	BISHOP AIRPORT	35.0	34.8	-0.2
CA	EUREKA	DOWNTOWN	44.5	44.4	-0.1
CA	FRESNO	FRESNO AIR TERMINAL	48.2	49.4	1.2
CA	LONG BEACH	LONG BEACH AIRPORT	52.8	52.4	-0.4
CA	LOS ANGELES	DOWNTOWN L.A./USC CAMPUS	54.0	53.5	-0.6
CA	LOS ANGELES	INTERNATIONAL AIRPORT	53.4	53.7	0.3
CA	REDDING	REDDING MUNICIPAL	45.1	47.4	2.3
CA	SACRAMENTO	EXECUTIVE AIRPORT	46.3	46.6	0.4
CA	SAN DIEGO	LINDBERGH FIELD	55.6	55.7	0.1
CA	SAN FRANCISCO	DOWNTOWN SF	49.8	48.9	-0.9
CA	SAN FRANCISCO	INTERNATIONAL AIRPORT	47.8	48.7	0.9
CA	SANTA MARIA	SANTA MARIA PUBLIC AIRPORT	44.0	44.4	0.4

State	City	Location	Normal Average Minimum Temperature (°F): Jan-June, 1971-2000	Average Minimum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
CA	STOCKTON	METROPOLITAN AIRPORT	46.5	46.5	0.03
CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	18.7	20.0	1.3
CO	COLORADO SPRINGS	COLORADO SPRINGS MUNICIPAL AP	29.7	32.4	2.7
CO	DENVER	DENVER INTERNATIONAL AP	31.8	33.1	1.3
CO	GRAND JUNCTION	WALKER FIELD	34.8	36.6	1.9
CO	PUEBLO	MEMORIAL AIRPORT	32.0	31.8	-0.2
CT	BRIDGEPORT	SIKORSKY MEMORIAL AIRPORT	38.5	40.0	1.5
CT	HARTFORD	BRADLEY INTERNATIONAL AIRPORT	34.7	36.7	2.0
DC	WASHINGTON DC	RONALD REAGAN NATIONAL AP	43.5	45.7	2.2
DC	WASHINGTON DC	DULLES INTERNATIONAL AIRPORT	37.8	41.7	3.9
DE	WILMINGTON	NEW CASTLE COUNTY APRT	39.9	41.7	1.8
FL	DAYTONA BEACH	INTERNATIONAL AIRPORT	57.1	58.0	0.9
FL	FORT MYERS	PAGE FIELD	62.2	61.8	-0.4
FL	GAINESVILLE	REGIONAL AIRPORT	53.7	53.5	-0.2
FL	JACKSONVILLE	INTERNATIONAL AIRPORT	53.8	53.6	-0.1
FL	KEY WEST	INTERNATIONAL AIRPORT	71.1	69.9	-1.2
FL	MIAMI	INTERNATIONAL AIRPORT	66.5	67.1	0.7
FL	ORLANDO	INTERNATIONAL AIRPORT	59.0	59.0	-0.1
FL	PENSACOLA	PENSACOLA REGIONAL AIRPT	55.9	58.1	2.2
FL	TALLAHASSEE	MUNICIPAL AIRPORT	52.5	52.9	0.4
FL	TAMPA	INTERNATIONAL AIRPORT	61.7	61.7	0.01
FL	VERO BEACH	MUNICIPAL AIRPORT	60.8	59.5	-1.3
FL	WEST PALM BEACH	PALM BEACH INTERNATIONAL AP	64.5	64.4	-0.1
GA	ATHENS	MUNICIPAL AIRPORT	47.0	48.2	1.2
GA	ATLANTA	HARTSFIELD ATLANTA INTL AP	48.4	50.3	1.9
GA	AUGUSTA	BUSH FIELD	47.0	47.6	0.6
GA	COLUMBUS	METROPOLITAN AIRPORT	50.5	53.0	2.5
GA	MACON	MIDDLE GA REGIONAL AIRPORT	48.3	49.2	0.8
GA	SAVANNAH	MUNICIPAL AIRPORT	51.5	51.0	-0.4
HI	HILO	HILO INTERNATIONAL AP	65.4	65.6	0.2
HI	HONOLULU	HONOLULU INTL ARPT	68.0	69.1	1.1
HI	KAHULUI	KAHULUI AIRPORT	65.6	66.4	0.8
HI	LIHUE	LIHUE AIRPORT	68.4	69.8	1.4
IA	DES MOINES	INTERNATIONAL AIRPORT	35.1	39.4	4.3
IA	DUBUQUE	MUNICIPAL AIRPORT	32.5	35.4	2.9
IA	SIOUX CITY	MUNICIPAL AIRPORT	32.4	35.1	2.7
IA	WATERLOO	L.B. MUNICIPAL AIRPORT	31.1	34.1	3.1
ID	BOISE	BOISE AIR TER. (GOWEN FLD.)	37.8	39.3	1.5
ID	LEWISTON	LEWISTON-NEZ PERCE COUNTY AP	39.3	41.1	1.7
ID	POCATELLO	MUNICIPAL AIRPORT	30.3	31.3	1.0
IL	CHICAGO	OHARE INTERNATIONAL AIRPORT	34.1	38.2	4.1
IL	MOLINE	QUAD CITY AIRPORT	34.8	38.6	3.9
IL	PEORIA	GREATER PEORIA AIRPORT	35.9	40.2	4.3
IL	ROCKFORD	GREATER ROCKFORD AIRPORT	32.7	36.6	3.9
IL	SPRINGFIELD	CAPITAL AIRPORT	38.1	40.9	2.8
IN	EVANSVILLE	DRESS REGIONAL AIRPORT	40.9	43.7	2.8
IN	FORT WAYNE	BAER FIELD	35.0	38.4	3.4

State	City	Location	Normal Average Minimum Temperature (°F): Jan-June, 1971-2000	Average Minimum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
IN	INDIANAPOLIS	INTERNATIONAL AIRPORT	37.9	41.3	3.4
IN	SOUTH BEND	MICHIANA REGIONAL AIRPORT	34.6	37.4	2.9
KS	CONCORDIA	BLOSSER MUNICIPAL AIRPORT	37.5	39.9	2.5
KS	DODGE CITY	DODGE CITY REGIONAL ARPT	37.9	40.1	2.2
KS	GOODLAND	RENNER FIELD	33.0	34.7	1.7
KS	TOPEKA	MUNICIPAL(PHILIP BILLARD)AP	38.8	41.7	3.0
KS	WICHITA	MID-CONTINENT AIRPORT	40.3	43.5	3.2
KY	JACKSON	JULIAN CARROLL AP	42.3	45.1	2.7
KY	LEXINGTON	BLUE GRASS FIELD	41.3	42.7	1.5
KY	LOUISVILLE	STANDIFORD FIELD	43.0	45.5	2.5
KY	PADUCAH	BARKLEY REGIONAL ARPT	42.3	44.8	2.6
LA	BATON ROUGE	RYAN AIRPORT	53.8	56.0	2.2
LA	LAKE CHARLES	MUNICIPAL AIRPORT	55.2	57.3	2.1
LA	NEW ORLEANS	NEW ORLEANS INT'L AIRPORT	56.5	60.1	3.6
LA	SHREVEPORT	SHREVEPORT REGIONAL AIRPORT	51.7	54.4	2.7
MA	BLUE HILL	MILTON OBS	34.4	37.1	2.7
MA	BOSTON	GEN LOGAN INTERNATIONAL AP	38.0	39.5	1.5
MA	WORCESTER	WORCESTER REGIONAL AIRPORT	32.7	36.2	3.5
MD	BALTIMORE	BALTIMORE-WASHINGTON INT'L AP	39.6	42.1	2.5
ME	CARIBOU	MUNICIPAL AIRPORT	22.9	27.7	4.8
ME	PORTLAND	PORTLAND INTERNATIONAL JETPORT	30.9	34.1	3.2
MI	ALPENA	PHELPS COLLINS AIRPORT	26.2	30.4	4.3
MI	DETROIT	METROPOLITAN AIRPORT	35.5	39.0	3.5
MI	FLINT	BISHOP AIRPORT	31.2	34.6	3.4
MI	GRAND RAPIDS	KENT COUNTY AIRPORT	32.9	36.5	3.6
MI	HOUGHTON LAKE	ROSCOMMON COUNTY APRT	26.6	30.6	4.0
MI	LANSING	CAPITAL CITY AIRPORT	31.2	35.9	4.7
MI	MARQUETTE	COUNTY AIRPORT	22.9	27.6	4.7
MI	MUSKEGON	MUSKEGON COUNTY AIRPORT	32.5	36.5	3.9
MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	23.7	29.7	6.0
MN	DULUTH	INTERNATIONAL AIRPORT	23.0	28.8	5.8
MN	INTERNATIONAL FALLS	FALLS INTERNATIONAL AP	19.9	24.0	4.1
MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	30.4	36.3	5.9
MN	ROCHESTER	MUNICIPAL AIRPORT	28.9	34.6	5.7
MN	SAINT CLOUD	MUNICIPAL AIRPORT	25.6	31.2	5.6
MO	COLUMBIA	COLUMBIA REGIONAL AIRPORT	38.7	42.9	4.2
MO	KANSAS CITY	INTERNATIONAL AIRPORT	39.2	44.1	4.9
MO	SPRINGFIELD	REGIONAL AIRPORT	40.4	43.9	3.6
MO	ST. LOUIS	INTERNATIONAL AIRPORT	42.2	44.8	2.7
MS	JACKSON	ALLEN C THOMPSON FIELD	49.9	51.5	1.6
MS	MERIDIAN	KEY FIELD	48.9	50.2	1.3
MS	TUPELO	TUPLO MUNI/LEMONS AIRPORT	46.2	50.1	3.9
MT	BILLINGS	INTERNATIONAL AIRPORT	32.1	34.7	2.5
MT	GLASGOW	INT'L AIRPORT	26.5	30.9	4.4
MT	GREAT FALLS	INTERNATIONAL AIRPORT	27.0	31.6	4.6
MT	HELENA	HELENA AIRPORT	27.9	33.2	5.3
MT	KALISPELL	GLACIER PARK INT'L AIRPORT	28.2	31.2	3.0

State	City	Location	Normal Average Minimum Temperature (°F): Jan-June, 1971-2000	Average Minimum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
MT	MISSOULA	MISSOULA INT'L AIRPORT	30.2	33.1	2.9
NC	ASHEVILLE	ASHEVILLE REGIONAL AIRPORT	39.9	41.2	1.3
NC	CAPE HATTERAS	WEATHER SERVICE BUILDING	50.4	51.8	1.4
NC	CHARLOTTE	DOUGLAS INTERNATIONAL AIRPORT	47.0	45.6	-1.4
NC	GREENSBORO-WNSTN-SAL	GREENSBORO REG. AP, NC	43.4	46.1	2.7
NC	RALEIGH	RALEIGH-DURHAM AIRPORT	44.3	45.9	1.6
NC	WILMINGTON	NEW HANOVER COUNTY AIRPORT	49.3	49.4	0.1
ND	BISMARCK	MUNICIPAL AIRPORT	25.2	30.5	5.2
ND	FARGO	HECTOR AIRPORT	25.7	30.3	4.6
ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	23.3	27.8	4.5
NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	33.9	37.8	3.9
NE	LINCOLN	MUNICIPAL AIRPORT	34.3	37.1	2.9
NE	NORFOLK	KARL STEFAN MEMORIAL AIRPORT	32.3	36.8	4.5
NE	NORTH PLATTE	LEE BIRD FIELD	30.2	32.2	2.0
NE	OMAHA	EPPLEY AIRFIELD	34.8	39.1	4.3
NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	29.3	30.9	1.6
NE	VALENTINE	MILLER FIELD	28.8	32.2	3.4
NH	CONCORD	CONCORD MUNICIPAL	28.6	31.8	3.2
NH	MOUNT WASHINGTON	SUMMIT OBSERVATORY	14.2	16.4	2.2
NJ	ATLANTIC CITY	STATE MARINA	43.4	44.9	1.5
NJ	ATLANTIC CITY	AVIATION FACILITIES EXPER CNTR	38.0	40.5	2.5
NJ	NEWARK	INTERNATIONAL AIRPORT	41.1	42.9	1.8
NM	ALBUQUERQUE	INTL AIRPORT-KIRTLAND AFB	39.2	43.5	4.3
NM	CLAYTON	MUNICIPAL AIRPORT	35.5	37.7	2.2
NM	ROSWELL	INDUSTRIAL AIR CENTER AP	41.3	45.0	3.7
NV	ELKO	MUNICIPAL AIRPORT	28.3	31.2	2.9
NV	ELY	YELLAND FIELD	24.7	25.8	1.1
NV	LAS VEGAS	MCCARRAN INTERNATIONAL APT	52.4	55.3	3.0
NV	RENO	CANNON INTERNATIONAL AP	32.7	37.7	5.0
NV	WINNEMUCCA	MUNICIPAL AIRPORT	30.7	30.9	0.2
NY	ALBANY	ALBANY INTERNATIONAL AIRPT	32.0	35.6	3.6
NY	BINGHAMTON	BROOME COUNTY AIRPORT	32.0	34.3	2.3
NY	BUFFALO	GREATER BUFFALO INTL AIRPORT	33.9	37.7	3.8
NY	ISLIP	LONG ISLAND MACARTHUR APT	37.8	39.7	1.9
NY	NEW YORK	JFK INTERNATIONAL AIRPORT	39.5	42.1	2.6
NY	NEW YORK	LA GUARDIA AIRPORT	42.1	45.3	3.3
NY	NEW YORK C.PARK	CENTRAL PARK OBSERVATORY	41.9	44.0	2.1
NY	ROCHESTER	ROCHESTER-MONROE COUNTY AP	32.6	36.8	4.3
NY	SYRACUSE	HANCOCK INTERNATIONAL AIRPORT	31.5	35.3	3.8
OH	AKRON	AKRON-CANTON AIRPORT	34.5	37.4	3.0
OH	CLEVELAND	CLEVELAND HOPKINS INTL AIRPORT	35.4	39.1	3.7
OH	COLUMBUS	PORT COLUMBUS INTL AIRPORT	38.3	41.3	3.0
OH	COVINGTON/CINCINNATI	CINCINNATI/NORTHERN KY INT	39.6	41.9	2.4
OH	DAYTON	INTERNATIONAL AIRPORT	37.4	39.8	2.4
OH	MANSFIELD	LAHM MUNICIPAL AIRPORT	33.4	37.3	3.9
OH	TOLEDO	TOLEDO EXPRESS AIRPORT	34.6	38.3	3.7
OH	YOUNGSTOWN	MUNICIPAL AIRPORT	33.5	36.3	2.7

State	City	Location	Normal Average Minimum Temperature (°F): Jan-June, 1971-2000	Average Minimum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
OK	OKLAHOMA CITY	WILL ROGERS WORLD AIRPORT	44.9	48.2	3.3
OK	TULSA	INTERNATIONAL AIRPORT	45.7	48.4	2.8
OR	ASTORIA	CLATSOP COUNTY AIRPORT	41.5	41.9	0.4
OR	BURNS	MUNICIPAL APT.	27.3	28.9	1.7
OR	EUGENE	MAHLON SWEET FIELD	38.9	40.1	1.3
OR	MEDFORD	ROGUE VALLEY INTNRL AIRPT	38.8	41.0	2.1
OR	PENDLETON	MUNICIPAL AIRPORT	38.6	38.5	-0.02
OR	PORTLAND	INTERNATIONAL AIRPORT	41.8	43.8	2.1
OR	SALEM	MC NARY FIELD	39.3	41.0	1.7
PA	ALLENTOWN	LEHIGH VALLEY INTRNL AIRPT	35.5	38.1	2.7
PA	AVOCA	WILKES-BARRE SCRANTON APT	35.1	36.7	1.6
PA	ERIE	TERMINAL BLDG.	35.8	38.3	2.5
PA	MIDDLETOWN/HARRISBURG	HARRISBURG INTL AIRPORT	39.0	41.2	2.2
PA	PHILADELPHIA	INTERNATIONAL AIRPORT	41.9	43.5	1.6
PA	PITTSBURGH	GREATER PITTSBURGH INTL AP	36.4	38.2	1.8
PA	WILLIAMSPORT	WILLIAMSPORT-LYCOMING CO AP	34.7	37.1	2.4
RI	PROVIDENCE	THEO FRANCIS GREEN STATE AP	36.4	38.9	2.4
SC	CHARLESTON	DOWNTOWN	56.5	57.4	0.9
SC	CHARLESTON	CHARLESTON INT'L AIRPORT	50.7	52.1	1.4
SC	COLUMBIA	COLUMBIA METROPOLITAN AIRPORT	48.7	49.1	0.4
SC	GREENVILLE-SPARTANBURG	GREER AIRPORT	45.6	47.6	2.0
SD	ABERDEEN	REGIONAL AIRPORT	27.4	31.4	4.0
SD	HURON	HURON REGIONAL AIRPORT	28.6	33.1	4.5
SD	RAPID CITY	RAPID CITY REGIONAL AIRPORT	29.5	32.4	2.8
SD	SIoux FALLS	FOSS FIELD	27.7	34.4	6.7
TN	BRISTOL-JHNSN CTY-KN	TRI-CITY AIRPORT	39.7	41.0	1.2
TN	CHATTANOOGA	LOVELL FIELD	45.1	47.6	2.6
TN	KNOXVILLE	MC GHEE TYSON AIRPORT	44.3	46.3	2.0
TN	MEMPHIS	INTERNATIONAL AIRPORT	48.7	51.5	2.9
TN	NASHVILLE	METROPOLITAN AIRPORT	44.6	47.2	2.6
TN	OAK RIDGE	OAK RIDGE	42.0	45.2	3.2
TX	ABILENE	MUNICIPAL AIRPORT	48.9	51.3	2.4
TX	AMARILLO	INTERNATIONAL AIRPORT	39.6	40.6	1.0
TX	AUSTIN/BERGSTROM	AUSTIN-BERGSTROM INTL APT	55.4	53.8	-1.6
TX	BROWNSVILLE	BROWNSVILLE AIRPORT	62.5	64.8	2.3
TX	CORPUS CHRISTI	INTERNATIONAL AIRPORT	59.5	62.2	2.7
TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	51.1	55.3	4.2
TX	DEL RIO	INTERNATIONAL AIRPORT	55.5	57.8	2.3
TX	EL PASO	INTERNATIONAL AIRPORT	49.1	51.6	2.5
TX	HOUSTON	INTERCONTINENTAL AIRPORT	55.4	58.3	2.8
TX	LUBBOCK	REGIONAL AIRPORT	42.4	45.7	3.3
TX	MIDLAND-ODESSA	MIDLAND INTERNATIONAL AIRPORT	46.4	49.3	2.9
TX	PORT ARTHUR	JEFFERSON COUNTY AIRPORT	56.4	57.6	1.2
TX	SAN ANGELO	MATHIS FIELD	48.4	50.5	2.1
TX	SAN ANTONIO	INTERNATIONAL AIRPORT	54.2	57.3	3.2
TX	VICTORIA	VICTORIA REGIONAL AIRPORT	57.6	57.2	-0.4
TX	WACO	WACO REGIONAL AIRPORT	51.6	54.2	2.7

State	City	Location	Normal Average Minimum Temperature (°F): Jan-June, 1971-2000	Average Minimum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	46.6	50.7	4.0
UT	SALT LAKE CITY	INTERNATIONAL AIRPORT	37.0	39.1	2.1
VA	LYNCHBURG	MUNICIPAL AIRPORT	39.9	40.6	0.7
VA	NORFOLK	INTERNATIONAL AIRPORT	46.3	48.1	1.8
VA	RICHMOND	R.E.BYRD INTERNATIONAL AP.	42.9	44.6	1.7
VA	ROANOKE	WOODRUM AIRPORT	41.5	43.9	2.4
VT	BURLINGTON	INTERNATIONAL AIRPORT	29.3	33.5	4.2
WA	OLYMPIA	OLYMPIA AIRPORT	37.2	38.3	1.0
WA	QUILLAYUTE	QUILLAYUTE STATE AIRPORT	38.5	40.0	1.6
WA	SEATTLE	SEATTLE-TACOMA AIRPORT	42.2	43.4	1.2
WA	SPOKANE	INTERNATIONAL AIRPORT	34.2	36.4	2.2
WA	YAKIMA	YAKIMA MUNICIPAL AIRPORT	32.3	34.3	2.1
WI	GREEN BAY	AUSTIN STRAUBEL FIELD	29.1	33.6	4.5
WI	LA CROSSE	MUNICIPAL AIRPORT	31.2	35.8	4.6
WI	MADISON	DANE COUNTY REGIONAL AIRPORT	30.9	34.6	3.8
WI	MILWAUKEE	GENERAL MITCHELL FIELD	33.0	37.4	4.4
WV	BECKLEY	RALEIGH COUNTY MEMORIAL AP	37.7	38.3	0.6
WV	CHARLESTON	YEAGER AIRPORT	39.2	41.6	2.4
WV	ELKINS	ELKINS-RANDOLPH COUNTY APT	32.7	34.9	2.2
WV	HUNTINGTON	TRI-STATE AIRPORT	40.8	42.9	2.1
WY	CASPER	NATRONA COUNTY INT'L AIRPORT	27.6	28.6	1.0
WY	CHEYENNE	MUNICIPAL AIRPORT	28.1	31.1	3.0
WY	LANDER	HUNT FIELD	27.8	29.7	1.9
WY	SHERIDAN	SHERIDAN COUNTY AIRPORT	27.2	29.5	2.4

Appendix E. Average Maximum Temperatures (2000-2005) Compared with Historical Normals (1971-2000): By Weather Station

State	City	Location	Normal Average Maximum Temperature (°F): 1971-2000	Average Maximum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
AK	ANCHORAGE	ANCHORAGE INTL AP	43.1	45.1	2.0
AK	ANNETTE	ANNETTE ISLAND AP	51.4	52.2	0.8
AK	BARROW	BARROW W POST-W ROGERS ARPT	15.8	17.5	1.7
AK	BETHEL	BETHEL AIRPORT	36.6	39.6	3.0
AK	BETTLES	BETTLES FIELD	32.4	34.1	1.7
AK	BIG DELTA	BIG DELTA ALLEN AAF	37.4	39.3	1.9
AK	COLD BAY	COLD BAY ARPT	43.1	44.7	1.6
AK	FAIRBANKS	FAIRBANKS INTL ARPT	37.3	38.6	1.3
AK	GULKANA	GULKANA INTERMEDIATE FIELD	37.4	39.9	2.5
AK	HOMER	HOMER ARPT	44.6	47.0	2.4
AK	JUNEAU	JUNEAU INT'L ARPT	47.6	48.8	1.2
AK	KING SALMON	KING SALMON ARPT	42.4	45.8	3.4
AK	KODIAK	KODIAK	46.0	47.4	1.4
AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMORIAL	27.7	30.1	2.4
AK	MCGRATH	MCGRATH ARPT	36.8	38.6	1.8
AK	NOME	NOME MUNICIPAL ARPT	33.7	35.1	1.4
AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	39.1	40.7	1.6
AK	TALKEETNA	TALKEETNA STATE ARPT	43.3	46.9	3.6
AK	VALDEZ	VALDEZ	44.2	46.0	1.8
AK	YAKUTAT	YAKUTAT STATE ARPT	46.3	47.5	1.2
AL	BIRMINGHAM	INTERNATIONAL AIRPORT	73.4	73.4	0.02
AL	HUNTSVILLE	INTNAL/JONES FIELD	71.1	71.8	0.7
AL	MOBILE	BATES FIELD	77.4	77.8	0.4
AL	MONTGOMERY	DANNELLY FIELD	77.0	76.8	-0.2
AR	FORT SMITH	MUNICIPAL AIRPORT	72.1	73.1	1.0
AR	LITTLE ROCK	ADAMS FIELD	72.7	72.8	0.1
AZ	FLAGSTAFF	PULLIAM AIRPORT	61.4	61.9	0.5
AZ	PHOENIX	SKY HARBOR INTL AIRPORT	86.4	87.1	0.7
AZ	TUCSON	INTERNATIONAL AIRPORT	82.5	83.7	1.2
AZ	WINSLOW	WINSLOW AIRPORT	70.4	72.5	2.1
CA	BAKERSFIELD	KERN COUNTY AIR TERMINAL	76.8	77.7	0.9
CA	BISHOP	BISHOP AIRPORT	74.6	75.1	0.5
CA	EUREKA	DOWNTOWN	59.3	60.2	0.9
CA	FRESNO	FRESNO AIR TERMINAL	75.3	77.0	1.7
CA	LONG BEACH	LONG BEACH AIRPORT	75.2	73.1	-2.1
CA	LOS ANGELES	DOWNTOWN L.A./USC CAMPUS	75.6	73.9	-1.7
CA	LOS ANGELES	INTERNATIONAL AIRPORT	70.6	69.5	-1.1
CA	REDDING	REDDING MUNICIPAL	75.3	75.5	0.2
CA	SACRAMENTO	EXECUTIVE AIRPORT	73.7	73.9	0.2
CA	SAN DIEGO	LINDBERGH FIELD	70.8	69.0	-1.8
CA	SAN FRANCISCO	DOWNTOWN SF	65.1	64.4	-0.7
CA	SAN FRANCISCO	INTERNATIONAL AIRPORT	65.1	65.6	0.5
CA	SANTA MARIA	SANTA MARIA PUBLIC AIRPORT	69.3	68.5	-0.8

State	City	Location	Normal Average Maximum Temperature (°F): 1971-2000	Average Maximum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
CA	STOCKTON	METROPOLITAN AIRPORT	74.6	75.4	0.8
CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	58.6	61.1	2.5
CO	COLORADO SPRINGS	COLORADO SPRINGS MUNICIPAL AP	61.8	63.1	1.3
CO	DENVER	DENVER INTERNATIONAL AP	64.2	64.6	0.4
CO	GRAND JUNCTION	WALKER FIELD	65.1	66.9	1.8
CO	PUEBLO	MEMORIAL AIRPORT	67.4	70.1	2.7
CT	BRIDGEPORT	SIKORSKY MEMORIAL AIRPORT	59.8	59.9	0.1
CT	HARTFORD	BRADLEY INTERNATIONAL AIRPORT	60.5	60.3	-0.2
DC	WASHINGTON DC	RONALD REAGAN NATIONAL AP	**	66.2	**
DC	WASHINGTON DC	DULLES INTERNATIONAL AIRPORT	**	65.4	**
DE	WILMINGTON	NEW CASTLE COUNTY APRT	63.5	63.4	-0.1
FL	DAYTONA BEACH	INTERNATIONAL AIRPORT	80.8	80.1	-0.7
FL	FORT MYERS	PAGE FIELD	84.6	83.8	-0.8
FL	GAINESVILLE	REGIONAL AIRPORT	79.9	80.3	0.4
FL	JACKSONVILLE	INTERNATIONAL AIRPORT	78.4	78.8	0.4
FL	KEY WEST	INTERNATIONAL AIRPORT	82.9	82.7	-0.2
FL	MIAMI	INTERNATIONAL AIRPORT	84.2	83.9	-0.3
FL	ORLANDO	INTERNATIONAL AIRPORT	83.2	82.5	-0.7
FL	PENSACOLA	PENSACOLA REGIONAL AIRPT	77.1	77.0	-0.1
FL	TALLAHASSEE	MUNICIPAL AIRPORT	79.5	79.4	-0.1
FL	TAMPA	INTERNATIONAL AIRPORT	81.4	81.6	0.2
FL	VERO BEACH	MUNICIPAL AIRPORT	82.3	82.1	-0.2
FL	WEST PALM BEACH	PALM BEACH INTERNATIONAL AP	83.2	83.1	-0.1
GA	ATHENS	MUNICIPAL AIRPORT	72.0	72.7	0.7
GA	ATLANTA	HARTSFIELD ATLANTA INTL AP	72.0	71.6	-0.4
GA	AUGUSTA	BUSH FIELD	75.7	76.0	0.3
GA	COLUMBUS	METROPOLITAN AIRPORT	75.8	76.1	0.3
GA	MACON	MIDDLE GA REGIONAL AIRPORT	75.5	76.6	1.1
GA	SAVANNAH	MUNICIPAL AIRPORT	77.2	76.9	-0.3
HI	HILO	HILO INTERNATIONAL AP	81.0	81.5	0.5
HI	HONOLULU	HONOLULU INTL ARPT	84.7	84.5	-0.2
HI	KAHULUI	KAHULUI AIRPORT	84.3	84.3	-0.05
HI	LIHUE	LIHUE AIRPORT	81.1	81.6	0.5
IA	DES MOINES	INTERNATIONAL AIRPORT	59.8	60.9	1.1
IA	DUBUQUE	MUNICIPAL AIRPORT	56.0	57.1	1.1
IA	SIOUX CITY	MUNICIPAL AIRPORT	59.5	61.0	1.5
IA	WATERLOO	L.B. MUNICIPAL AIRPORT	58.1	59.1	1.0
ID	BOISE	BOISE AIR TER. (GOWEN FLD.)	62.6	64.2	1.6
ID	LEWISTON	LEWISTON-NEZ PERCE COUNTY AP	62.4	63.7	1.3
ID	POCATELLO	MUNICIPAL AIRPORT	59.6	60.2	0.6
IL	CHICAGO	OHARE INTERNATIONAL AIRPORT	58.3	59.3	1.0
IL	MOLINE	QUAD CITY AIRPORT	60.4	61.5	1.1
IL	PEORIA	GREATER PEORIA AIRPORT	60.7	61.9	1.2
IL	ROCKFORD	GREATER ROCKFORD AIRPORT	57.8	59.1	1.3
IL	SPRINGFIELD	CAPITAL AIRPORT	62.4	63.4	1.0
IN	EVANSVILLE	DRESS REGIONAL AIRPORT	66.7	66.4	-0.3

State	City	Location	Normal Average Maximum Temperature (°F): 1971-2000	Average Maximum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
IN	FORT WAYNE	BAER FIELD	59.6	60.0	0.4
IN	INDIANAPOLIS	INTERNATIONAL AIRPORT	62.3	62.6	0.3
IN	SOUTH BEND	MICHIANA REGIONAL AIRPORT	58.8	59.2	0.4
KS	CONCORDIA	BLOSSER MUNICIPAL AIRPORT	64.5	66.1	1.6
KS	DODGE CITY	DODGE CITY REGIONAL ARPT	67.7	68.9	1.2
KS	GOODLAND	RENNER FIELD	63.9	66.7	2.8
KS	TOPEKA	MUNICIPAL(PHILIP BILLARD)AP	65.2	66.8	1.6
KS	WICHITA	MID-CONTINENT AIRPORT	67.4	68.5	1.1
KY	JACKSON	JULIAN CARROLL AP	65.2	65.8	0.6
KY	LEXINGTON	BLUE GRASS FIELD	64.7	65.1	0.4
KY	LOUISVILLE	STANDIFORD FIELD	66.0	67.2	1.2
KY	PADUCAH	BARKLEY REGIONAL ARPT	67.5	68.4	0.9
LA	BATON ROUGE	RYAN AIRPORT	77.3	78.6	1.3
LA	LAKE CHARLES	MUNICIPAL AIRPORT	77.6	78.4	0.8
LA	NEW ORLEANS	NEW ORLEANS INT'L AIRPORT	78.0	78.3	0.3
LA	SHREVEPORT	SHREVEPORT REGIONAL AIRPORT	76.3	76.6	0.3
MA	BLUE HILL	MILTON OBS	57.7	57.6	-0.1
MA	BOSTON	GEN LOGAN INTERNATIONAL AP	59.3	58.7	-0.6
MA	WORCESTER	WORCESTER REGIONAL AIRPORT	55.9	55.9	-0.03
MD	BALTIMORE	BALTIMORE-WASHINGTON INT'L AP	65.1	65.1	-0.03
ME	CARIBOU	MUNICIPAL AIRPORT	48.9	49.0	0.1
ME	PORTLAND	PORTLAND INTERNATIONAL JETPORT	55.2	55.3	0.1
MI	ALPENA	HELPS COLLINS AIRPORT	52.6	54.0	1.4
MI	DETROIT	METROPOLITAN AIRPORT	58.4	58.9	0.5
MI	FLINT	BISHOP AIRPORT	56.8	57.9	1.1
MI	GRAND RAPIDS	KENT COUNTY AIRPORT	56.9	57.2	0.3
MI	HOUGHTON LAKE	ROSCOMMON COUNTY APRT	53.7	54.4	0.7
MI	LANSING	CAPITAL CITY AIRPORT	56.9	57.7	0.8
MI	MARQUETTE	COUNTY AIRPORT	48.0	50.2	2.2
MI	MUSKEGON	MUSKEGON COUNTY AIRPORT	55.8	56.7	0.9
MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	49.6	50.6	1.0
MN	DULUTH	INTERNATIONAL AIRPORT	48.7	49.0	0.3
MN	INTERNATIONAL FALLS	FALLS INTERNATIONAL AP	48.8	49.1	0.3
MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	54.7	55.5	0.8
MN	ROCHESTER	MUNICIPAL AIRPORT	52.6	54.3	1.7
MN	SAINT CLOUD	MUNICIPAL AIRPORT	52.5	53.9	1.4
MO	COLUMBIA	COLUMBIA REGIONAL AIRPORT	64.9	65.0	0.1
MO	KANSAS CITY	INTERNATIONAL AIRPORT	64.3	65.4	1.1
MO	SPRINGFIELD	REGIONAL AIRPORT	67.4	67.1	-0.3
MO	ST. LOUIS	INTERNATIONAL AIRPORT	65.7	66.4	0.7
MS	JACKSON	ALLEN C THOMPSON FIELD	75.0	75.8	0.8
MS	MERIDIAN	KEY FIELD	76.9	76.1	-0.8
MS	TUPELO	TUPLO MUNI/LEMONS AIRPORT	72.7	72.9	0.2
MT	BILLINGS	INTERNATIONAL AIRPORT	58.4	59.6	1.2
MT	GLASGOW	INT'L AIRPORT	54.0	55.1	1.1
MT	GREAT FALLS	INTERNATIONAL AIRPORT	56.4	57.4	1.0

State	City	Location	Normal Average Maximum Temperature (°F): 1971-2000	Average Maximum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
MT	HELENA	HELENA AIRPORT	56.7	57.9	1.2
MT	KALISPELL	GLACIER PARK INT'L AIRPORT	54.6	55.0	0.4
MT	MISSOULA	MISSOULA INT'L AIRPORT	56.7	56.9	0.2
NC	ASHEVILLE	ASHEVILLE REGIONAL AIRPORT	65.7	66.8	1.1
NC	CAPE HATTERAS	WEATHER SERVICE BUILDING	69.9	69.3	-0.6
NC	CHARLOTTE	DOUGLAS INTERNATIONAL AIRPORT	71.7	71.0	-0.7
NC	GREENSBORO-WNSTN-SAL	GREENSBORO REG. AP, NC	68.5	68.8	0.3
NC	RALEIGH	RALEIGH-DURHAM AIRPORT	70.6	71.2	0.6
NC	WILMINGTON	NEW HANOVER COUNTY AIRPORT	74.0	73.5	-0.5
ND	BISMARCK	MUNICIPAL AIRPORT	54.5	55.9	1.4
ND	FARGO	HECTOR AIRPORT	51.7	52.6	0.9
ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	53.5	54.0	0.5
NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	61.1	63.3	2.2
NE	LINCOLN	MUNICIPAL AIRPORT	62.8	64.1	1.3
NE	NORFOLK	KARL STEFAN MEMORIAL AIRPORT	60.3	62.0	1.7
NE	NORTH PLATTE	LEE BIRD FIELD	63.0	64.2	1.2
NE	OMAHA	EPPLEY AIRFIELD	61.5	62.7	1.2
NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	62.8	64.4	1.6
NE	VALENTINE	MILLER FIELD	61.1	62.7	1.6
NH	CONCORD	CONCORD MUNICIPAL	57.7	57.7	0.04
NH	MOUNT WASHINGTON	SUMMIT OBSERVATORY	33.9	34.8	0.9
NJ	ATLANTIC CITY	AVIATION FACILITIES EXPER CNTR	63.6	63.9	0.3
NJ	ATLANTIC CITY	STATE MARINA	61.1	62.0	0.9
NJ	NEWARK	INTERNATIONAL AIRPORT	62.3	63.2	0.9
NM	ALBUQUERQUE	INTL AIRPORT-KIRTLAND AFB	70.4	70.3	-0.1
NM	CLAYTON	MUNICIPAL AIRPORT	67.0	68.4	1.4
NM	ROSWELL	INDUSTRIAL AIR CENTER AP	76.3	76.5	0.2
NV	ELKO	MUNICIPAL AIRPORT	62.2	62.5	0.3
NV	ELY	YELLAND FIELD	61.6	62.2	0.6
NV	LAS VEGAS	MCCARRAN INTERNATIONAL APT	79.9	80.4	0.5
NV	RENO	CANNON INTERNATIONAL AP	67.4	68.5	1.1
NV	WINNEMUCCA	MUNICIPAL AIRPORT	65.6	66.2	0.6
NY	ALBANY	ALBANY INTERNATIONAL AIRPT	57.6	57.8	0.2
NY	BINGHAMTON	BROOME COUNTY AIRPORT	54.0	54.5	0.5
NY	BUFFALO	GREATER BUFFALO INTL AIRPORT	55.9	56.3	0.4
NY	ISLIP	LONG ISLAND MACARTHUR APT	61.2	60.3	-0.9
NY	NEW YORK	JFK INTERNATIONAL AIRPORT	61.2	61.1	-0.1
NY	NEW YORK	LA GUARDIA AIRPORT	62.0	62.4	0.4
NY	NEW YORK C.PARK	CENTRAL PARK OBSERVATORY	61.7	62.1	0.4
NY	ROCHESTER	ROCHESTER-MONROE COUNTY AP	56.8	57.1	0.3
NY	SYRACUSE	HANCOCK INTERNATIONAL AIRPORT	57.1	57.9	0.8
OH	AKRON	AKRON-CANTON AIRPORT	58.9	58.9	-0.03
OH	CLEVELAND	CLEVELAND HOPKINS INTL AIRPORT	58.1	59.1	1.0
OH	COLUMBUS	PORT COLUMBUS INTL AIRPORT	62.6	62.2	-0.4
OH	COVINGTON/CINCINNATI	CINCINNATI/NORTHERN KY INT	64.0	63.5	-0.5
OH	DAYTON	INTERNATIONAL AIRPORT	60.6	61.0	0.4

State	City	Location	Normal Average Maximum Temperature (°F): 1971-2000	Average Maximum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
OH	MANSFIELD	LAHM MUNICIPAL AIRPORT	58.5	58.6	0.1
OH	TOLEDO	TOLEDO EXPRESS AIRPORT	58.9	60.1	1.2
OH	YOUNGSTOWN	MUNICIPAL AIRPORT	58.2	58.7	0.5
OK	OKLAHOMA CITY	WILL ROGERS WORLD AIRPORT	71.1	71.6	0.5
OK	TULSA	INTERNATIONAL AIRPORT	71.4	71.7	0.3
OR	ASTORIA	CLATSOP COUNTY AIRPORT	58.1	59.0	0.9
OR	BURNS	MUNICIPAL APT.	59.2	59.8	0.6
OR	EUGENE	MAHLON SWEET FIELD	63.0	63.6	0.6
OR	MEDFORD	ROGUE VALLEY INTNRL AIRPT	67.4	68.3	0.9
OR	PENDLETON	MUNICIPAL AIRPORT	63.0	63.6	0.6
OR	PORTLAND	INTERNATIONAL AIRPORT	62.1	63.1	1.0
OR	SALEM	MC NARY FIELD	63.4	63.5	0.1
PA	ALLENTOWN	LEHIGH VALLEY INTRNL AIRPT	60.5	61.6	1.1
PA	AVOCA	WILKES-BARRE SCRANTON APT	59.3	59.0	-0.3
PA	ERIE	TERMINAL BLDG.	57.8	57.3	-0.5
PA	MIDDLETOWN/HARRISBURG	HARRISBURG INTERNATIONAL AIRPORT	62.4	62.6	0.2
PA	PHILADELPHIA	INTERNATIONAL AIRPORT	63.2	64.4	1.2
PA	PITTSBURGH	GREATER PITTSBURGH INTL AP	60.4	60.7	0.3
PA	WILLIAMSPORT	WILLIAMSPORT-LYCOMING CO AP	59.6	60.4	0.8
RI	PROVIDENCE	THEO FRANCIS GREEN STATE AP	60.2	60.2	-0.02
SC	CHARLESTON	DOWNTOWN	73.5	73.3	-0.2
SC	CHARLESTON	CHARLESTON INT'L AIRPORT	75.9	76.1	0.2
SC	COLUMBIA	COLUMBIA METROPOLITAN AIRPORT	74.8	74.9	0.1
SC	GREENVILLE-SPARTANBURG	GREER AIRPORT	70.4	71.2	0.8
SD	ABERDEEN	REGIONAL AIRPORT	55.1	55.6	0.5
SD	HURON	HURON REGIONAL AIRPORT	57.0	58.5	1.5
SD	RAPID CITY	RAPID CITY REGIONAL AIRPORT	59.1	61.4	2.3
SD	SIOUX FALLS	FOSS FIELD	57.2	57.6	0.4
TN	BRISTOL-JHNSN CTY-KN	TRI-CITY AIRPORT	66.3	67.5	1.2
TN	CHATTANOOGA	LOVELL FIELD	70.8	71.6	0.8
TN	KNOXVILLE	MC GHEE TYSON AIRPORT	68.3	69.2	0.9
TN	MEMPHIS	INTERNATIONAL AIRPORT	72.1	72.5	0.4
TN	NASHVILLE	METROPOLITAN AIRPORT	69.0	69.8	0.8
TN	OAK RIDGE*	OAK RIDGE*	68.9	69.7	0.8
TX	ABILENE	MUNICIPAL AIRPORT	76.1	76.1	0.02
TX	AMARILLO	INTERNATIONAL AIRPORT	70.3	71.4	1.1
TX	AUSTIN/BERGSTROM	AUSTIN-BERGSTROM INTL APT	79.5	79.6	0.1
TX	BROWNSVILLE	BROWNSVILLE AIRPORT	82.0	84.3	2.3
TX	CORPUS CHRISTI	INTERNATIONAL AIRPORT	80.9	82.0	1.1
TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	75.8	76.5	0.7
TX	DEL RIO	INTERNATIONAL AIRPORT	80.9	81.8	0.9
TX	EL PASO	INTERNATIONAL AIRPORT	77.1	77.9	0.8
TX	HOUSTON	INTERCONTINENTAL AIRPORT	79.4	79.5	0.1
TX	LUBBOCK	REGIONAL AIRPORT	73.2	74.4	1.2
TX	MIDLAND-ODESSA	MIDLAND INTERNATIONAL AIRPORT	77.0	76.9	-0.1
TX	PORT ARTHUR	JEFFERSON COUNTY AIRPORT	78.1	78.7	0.6

State	City	Location	Normal Average Maximum Temperature (°F): 1971-2000	Average Maximum Temperature (°F): 2000-2005	Degrees Above Normal (°F)
TX	SAN ANGELO	MATHIS FIELD	77.1	78.0	0.9
TX	SAN ANTONIO	INTERNATIONAL AIRPORT	79.8	79.8	-0.03
TX	VICTORIA	VICTORIA REGIONAL AIRPORT	79.6	80.9	1.3
TX	WACO	WACO REGIONAL AIRPORT	77.9	77.9	0.04
TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	75.3	75.9	0.6
UT	SALT LAKE CITY	INTERNATIONAL AIRPORT	62.9	64.0	1.1
VA	LYNCHBURG	MUNICIPAL AIRPORT	66.8	66.7	-0.1
VA	NORFOLK	INTERNATIONAL AIRPORT	67.8	68.5	0.7
VA	RICHMOND	R.E.BYRD INTERNATIONAL AP.	67.8	68.9	1.1
VA	ROANOKE	WOODRUM AIRPORT	67.2	67.1	-0.1
VT	BURLINGTON	INTERNATIONAL AIRPORT	54.5	55.1	0.6
WA	OLYMPIA	OLYMPIA AIRPORT	59.8	60.5	0.7
WA	QUILLAYUTE	QUILLAYUTE STATE AIRPORT	57.4	57.2	-0.2
WA	SEATTLE	SEATTLE-TACOMA AIRPORT	59.8	59.5	-0.3
WA	SPOKANE	INTERNATIONAL AIRPORT	57.4	57.6	0.2
WA	YAKIMA	YAKIMA MUNICIPAL AIRPORT	63.0	63.7	0.7
WI	GREEN BAY	AUSTIN STRAUBEL FIELD	54.3	54.8	0.5
WI	LA CROSSE	MUNICIPAL AIRPORT	57.7	57.8	0.1
WI	MADISON	DANE COUNTY REGIONAL AIRPORT	55.8	56.9	1.1
WI	MILWAUKEE	GENERAL MITCHELL FIELD	55.9	56.2	0.3
WV	BECKLEY	RALEIGH COUNTY MEMORIAL AP	61.2	60.9	-0.3
WV	CHARLESTON	YEAGER AIRPORT	65.4	65.8	0.4
WV	ELKINS	ELKINS-RANDOLPH COUNTY APT	62.2	62.4	0.2
WV	HUNTINGTON	TRI-STATE AIRPORT	64.9	66.0	1.1
WY	CASPER	NATRONA COUNTY INT'L AIRPORT	58.2	60.2	2.0
WY	CHEYENNE	MUNICIPAL AIRPORT	57.6	59.6	2.0
WY	LANDER	HUNT FIELD	58.0	58.5	0.5
WY	SHERIDAN	SHERIDAN COUNTY AIRPORT	58.4	60.0	1.6

* The 2001 data for the Oak Ridge station in Tennessee was missing temperature data for July 2001.

Appendix F. Average Maximum Temperatures (January-June 2006) Compared with Historical Normals (January-June 1971-2000): By Weather Station

State	City	Location	Normal Average Maximum Temperature (°F): Jan-June, 1971-2000	Average Maximum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
AK	ANCHORAGE	ANCHORAGE INTL AP	40.5	39.3	-1.1
AK	ANNETTE	ANNETTE ISLAND AP	48.7	48.9	0.2
AK	BARROW	BARROW W POST-W ROGERS ARPT	7.6	9.4	1.8
AK	BETHEL	BETHEL AIRPORT	31.7	29.5	-2.2
AK	BETTLES	BETTLES FIELD	28.8	25.9	-2.9
AK	BIG DELTA	BIG DELTA ALLEN AAF	34.7	32.9	-1.7
AK	COLD BAY	COLD BAY ARPT	39.0	38.9	-0.1
AK	FAIRBANKS	FAIRBANKS INTL ARPT	34.6	31.5	-3.1
AK	GULKANA	GULKANA INTERMEDIATE FIELD	34.8	33.1	-1.7
AK	HOMER	HOMER ARPT	41.3	41.6	0.3
AK	JUNEAU	JUNEAU INT'L ARPT	45.0	44.5	-0.5
AK	KING SALMON	KING SALMON ARPT	38.6	37.4	-1.1
AK	KODIAK	KODIAK	42.4	41.9	-0.5
AK	KOTZEBUE	KOTZEBUE RALPH WEIN MEMORIAL	20.4	18.4	-1.9
AK	MCGRATH	MCGRATH ARPT	33.9	31.2	-2.6
AK	NOME	NOME MUNICIPAL ARPT	28.1	24.2	-3.9
AK	ST. PAUL ISLAND	ST PAUL ISLAND ARPT	34.2	34.1	-0.1
AK	TALKEETNA	TALKEETNA STATE ARPT	41.0	40.1	-0.9
AK	VALDEZ	VALDEZ	41.5	42.1	0.6
AK	YAKUTAT	YAKUTAT STATE ARPT	43.3	43.1	-0.3
AL	BIRMINGHAM	INTERNATIONAL AIRPORT	70.0	72.6	2.6
AL	HUNTSVILLE	INTNAL/JONES FIELD	67.6	70.4	2.9
AL	MOBILE	BATES FIELD	74.6	77.5	2.9
AL	MONTGOMERY	DANNELLY FIELD	73.9	76.1	2.3
AR	FORT SMITH	MUNICIPAL AIRPORT	68.0	72.7	4.7
AR	LITTLE ROCK	ADAMS FIELD	68.7	72.1	3.4
AZ	FLAGSTAFF	PULLIAM AIRPORT	57.3	59.3	2.1
AZ	PHOENIX	SKY HARBOR INTL AIRPORT	82.9	84.7	1.8
AZ	TUCSON	INTERNATIONAL AIRPORT	79.7	82.5	2.7
AZ	WINSLOW	WINSLOW AIRPORT	67.0	71.6	4.6
CA	BAKERSFIELD	KERN COUNTY AIR TERMINAL	73.2	73.3	0.1
CA	BISHOP	BISHOP AIRPORT	70.2	69.1	-1.1
CA	EUREKA	DOWNTOWN	57.6	58.0	0.3
CA	FRESNO	FRESNO AIR TERMINAL	71.4	71.8	0.3
CA	LONG BEACH	LONG BEACH AIRPORT	71.7	69.7	-2.0
CA	LOS ANGELES	DOWNTOWN L.A./USC CAMPUS	72.4	71.3	-1.2
CA	LOS ANGELES	INTERNATIONAL AIRPORT	67.8	67.9	0.1
CA	REDDING	REDDING MUNICIPAL	70.2	69.7	-0.5
CA	SACRAMENTO	EXECUTIVE AIRPORT	69.6	69.1	-0.6
CA	SAN DIEGO	LINDBERGH FIELD	68.1	67.6	-0.5
CA	SAN FRANCISCO	DOWNTOWN SF	63.3	61.3	-1.9
CA	SAN FRANCISCO	INTERNATIONAL AIRPORT	62.9	62.7	-0.2
CA	SANTA MARIA	SANTA MARIA PUBLIC AIRPORT	66.9	67.0	0.1

State	City	Location	Normal Average Maximum Temperature (°F): Jan-June, 1971-2000	Average Maximum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
CA	STOCKTON	METROPOLITAN AIRPORT	70.8	71.5	0.7
CO	ALAMOSA	SAN LUIS VALLEY RGNL APT	54.7	60.1	5.4
CO	COLORADO SPRINGS	COLORADO SPRINGS MUNICIPAL AP	57.6	62.0	4.4
CO	DENVER	DENVER INTERNATIONAL AP	59.6	64.0	4.4
CO	GRAND JUNCTION	WALKER FIELD	60.6	64.8	4.2
CO	PUEBLO	MEMORIAL AIRPORT	63.1	68.5	5.4
CT	BRIDGEPORT	SIKORSKY MEMORIAL AIRPORT	53.9	56.2	2.3
CT	HARTFORD	BRADLEY INTERNATIONAL AIRPORT	55.2	56.5	1.3
DC	WASHINGTON DC	DULLES INTERNATIONAL AIRPORT	*	63.7	*
DC	WASHINGTON DC	RONALD REAGAN NATIONAL AP	*	63.9	*
DE	WILMINGTON	NEW CASTLE COUNTY APRT	58.3	61.1	2.7
FL	DAYTONA BEACH	INTERNATIONAL AIRPORT	78.3	79.7	1.4
FL	FORT MYERS	PAGE FIELD	82.9	83.4	0.5
FL	GAINESVILLE	REGIONAL AIRPORT	77.9	79.0	1.1
FL	JACKSONVILLE	INTERNATIONAL AIRPORT	76.1	78.3	2.2
FL	KEY WEST	INTERNATIONAL AIRPORT	80.9	80.0	-0.9
FL	MIAMI	INTERNATIONAL AIRPORT	82.6	82.3	-0.3
FL	ORLANDO	INTERNATIONAL AIRPORT	81.1	82.4	1.3
FL	PENSACOLA	PENSACOLA REGIONAL AIRPT	74.1	77.3	3.2
FL	TALLAHASSEE	MUNICIPAL AIRPORT	77.1	79.3	2.2
FL	TAMPA	INTERNATIONAL AIRPORT	79.0	79.5	0.5
FL	VERO BEACH	MUNICIPAL AIRPORT	80.1	80.8	0.7
FL	WEST PALM BEACH	PALM BEACH INTERNATIONAL AP	81.2	81.4	0.3
GA	ATHENS	MUNICIPAL AIRPORT	68.9	72.0	3.1
GA	ATLANTA	HARTSFIELD ATLANTA INTL AP	68.9	69.9	1.1
GA	AUGUSTA	BUSH FIELD	72.9	74.6	1.8
GA	COLUMBUS	METROPOLITAN AIRPORT	72.9	75.3	2.4
GA	MACON	MIDDLE GA REGIONAL AIRPORT	72.5	75.1	2.6
GA	SAVANNAH	MUNICIPAL AIRPORT	74.5	75.5	1.0
HI	HILO	HILO INTERNATIONAL AP	80.0	79.0	-1.0
HI	HONOLULU	HONOLULU INTL ARPT	83.0	80.9	-2.1
HI	KAHULUI	KAHULUI AIRPORT	82.6	83.0	0.5
HI	LIHUE	LIHUE AIRPORT	79.3	79.7	0.4
IA	DES MOINES	INTERNATIONAL AIRPORT	54.7	59.3	4.6
IA	DUBUQUE	MUNICIPAL AIRPORT	50.7	54.0	3.3
IA	SIoux CITY	MUNICIPAL AIRPORT	54.7	59.5	4.8
IA	WATERLOO	L.B. MUNICIPAL AIRPORT	52.7	55.9	3.2
ID	BOISE	BOISE AIR TER. (GOWEN FLD.)	57.9	59.8	1.8
ID	LEWISTON	LEWISTON-NEZ PERCE COUNTY AP	58.1	61.0	2.9
ID	POCATELLO	MUNICIPAL AIRPORT	54.1	55.1	1.0
IL	CHICAGO	OHARE INTERNATIONAL AIRPORT	52.9	56.3	3.4
IL	MOLINE	QUAD CITY AIRPORT	55.2	58.6	3.3
IL	PEORIA	GREATER PEORIA AIRPORT	55.7	59.5	3.8
IL	ROCKFORD	GREATER ROCKFORD AIRPORT	52.7	55.7	3.0
IL	SPRINGFIELD	CAPITAL AIRPORT	57.4	61.5	4.1
IN	EVANSVILLE	DRESS REGIONAL AIRPORT	62.0	64.0	2.1

State	City	Location	Normal Average Maximum Temperature (°F): Jan-June, 1971-2000	Average Maximum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
IN	FORT WAYNE	BAER FIELD	54.3	57.0	2.7
IN	INDIANAPOLIS	INTERNATIONAL AIRPORT	57.4	59.6	2.2
IN	SOUTH BEND	MICHIANA REGIONAL AIRPORT	53.8	55.9	2.1
KS	CONCORDIA	BLOSSER MUNICIPAL AIRPORT	59.4	65.7	6.3
KS	DODGE CITY	DODGE CITY REGIONAL ARPT	62.8	69.6	6.8
KS	GOODLAND	RENNER FIELD	59.3	65.2	5.9
KS	TOPEKA	MUNICIPAL(PHILIP BILLARD)AP	60.4	66.2	5.8
KS	WICHITA	MID-CONTINENT AIRPORT	62.4	68.5	6.1
KY	JACKSON	JULIAN CARROLL AP	61.2	64.4	3.2
KY	LEXINGTON	BLUE GRASS FIELD	60.3	61.9	1.6
KY	LOUISVILLE	STANDIFORD FIELD	61.7	64.2	2.5
KY	PADUCAH	BARKLEY REGIONAL ARPT	63.1	66.6	3.6
LA	BATON ROUGE	RYAN AIRPORT	74.2	79.3	5.0
LA	LAKE CHARLES	MUNICIPAL AIRPORT	74.5	77.6	3.2
LA	NEW ORLEANS	NEW ORLEANS INT'L AIRPORT	75.2	78.5	3.3
LA	SHREVEPORT	SHREVEPORT REGIONAL AIRPORT	72.9	76.2	3.3
MA	BLUE HILL	MILTON OBS	52.2	53.8	1.6
MA	BOSTON	GEN LOGAN INTERNATIONAL AP	53.5	54.2	0.7
MA	WORCESTER	WORCESTER REGIONAL AIRPORT	50.6	52.3	1.7
MD	BALTIMORE	BALTIMORE-WASHINGTON INT'L AP	60.2	63.6	3.4
ME	CARIBOU	MUNICIPAL AIRPORT	43.0	46.2	3.2
ME	PORTLAND	PORTLAND INTERNATIONAL JETPORT	49.4	51.2	1.8
MI	ALPENA	PHELPS COLLINS AIRPORT	46.7	50.7	4.0
MI	DETROIT	METROPOLITAN AIRPORT	53.0	56.1	3.2
MI	FLINT	BISHOP AIRPORT	51.3	53.5	2.3
MI	GRAND RAPIDS	KENT COUNTY AIRPORT	51.6	54.3	2.7
MI	HOUGHTON LAKE	ROSCOMMON COUNTY APRT	48.4	50.8	2.4
MI	LANSING	CAPITAL CITY AIRPORT	51.6	53.9	2.3
MI	MARQUETTE	COUNTY AIRPORT	42.4	46.8	4.4
MI	MUSKEGON	MUSKEGON COUNTY AIRPORT	50.3	52.8	2.5
MI	SAULT STE. MARIE	SAULT STE MARIE MUNI APT	43.6	46.9	3.3
MN	DULUTH	INTERNATIONAL AIRPORT	43.4	46.5	3.1
MN	INTERNATIONAL FALLS	FALLS INTERNATIONAL AP	43.9	46.5	2.6
MN	MINNEAPOLIS-ST.PAUL	INTERNATIONAL AIRPORT	49.5	53.2	3.7
MN	ROCHESTER	MUNICIPAL AIRPORT	47.3	51.9	4.5
MN	SAINT CLOUD	MUNICIPAL AIRPORT	47.2	51.7	4.5
MO	COLUMBIA	COLUMBIA REGIONAL AIRPORT	60.1	64.1	4.0
MO	KANSAS CITY	INTERNATIONAL AIRPORT	59.5	65.9	6.4
MO	SPRINGFIELD	REGIONAL AIRPORT	62.6	66.9	4.3
MO	ST. LOUIS	INTERNATIONAL AIRPORT	61.0	64.7	3.6
MS	JACKSON	ALLEN C THOMPSON FIELD	71.6	75.0	3.4
MS	MERIDIAN	KEY FIELD	73.6	76.4	2.8
MS	TUPELO	TUPLO MUNI/LEMONS AIRPORT	68.9	72.7	3.8
MT	BILLINGS	INTERNATIONAL AIRPORT	53.8	58.4	4.6
MT	GLASGOW	INT'L AIRPORT	48.5	53.7	5.2
MT	GREAT FALLS	INTERNATIONAL AIRPORT	51.6	55.0	3.4

State	City	Location	Normal Average Maximum Temperature (°F): Jan-June, 1971-2000	Average Maximum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
MT	HELENA	HELENA AIRPORT	52.1	56.7	4.7
MT	KALISPELL	GLACIER PARK INT'L AIRPORT	50.3	52.1	1.8
MT	MISSOULA	MISSOULA INT'L AIRPORT	52.5	54.8	2.3
NC	ASHEVILLE	ASHEVILLE REGIONAL AIRPORT	62.3	65.2	2.9
NC	CAPE HATTERAS	WEATHER SERVICE BUILDING	65.4	64.6	-0.9
NC	CHARLOTTE	DOUGLAS INTERNATIONAL AIRPORT	68.4	69.6	1.2
NC	GREENSBORO-WNSTN-SAL	GREENSBORO REG. AP, NC	64.9	67.8	2.9
NC	RALEIGH	RALEIGH-DURHAM AIRPORT	67.1	69.3	2.2
NC	WILMINGTON	NEW HANOVER COUNTY AIRPORT	70.5	71.3	0.8
ND	BISMARCK	MUNICIPAL AIRPORT	48.8	54.0	5.2
ND	FARGO	HECTOR AIRPORT	45.9	49.2	3.3
ND	WILLISTON	SLOULIN FIELD INT'L AIRPORT	48.1	52.9	4.8
NE	GRAND ISLAND	HALL COUNTY REGIONAL AP	56.3	63.0	6.7
NE	LINCOLN	MUNICIPAL AIRPORT	57.7	63.0	5.3
NE	NORFOLK	KARL STEFAN MEMORIAL AIRPORT	55.5	60.8	5.3
NE	NORTH PLATTE	LEE BIRD FIELD	58.2	63.9	5.7
NE	OMAHA	EPPLEY AIRFIELD	56.8	61.4	4.7
NE	SCOTTSBLUFF	SCOTTS BLUFF COUNTY AIRPORT	58.1	61.6	3.6
NE	VALENTINE	MILLER FIELD	55.8	59.5	3.7
NH	CONCORD	CONCORD MUNICIPAL	52.2	53.6	1.4
NH	MOUNT WASHINGTON	SUMMIT OBSERVATORY	28.6	29.5	1.0
NJ	ATLANTIC CITY	AVIATION FACILITIES EXPER CNTR	58.3	61.1	2.8
NJ	ATLANTIC CITY	STATE MARINA	55.4	58.1	2.7
NJ	NEWARK	INTERNATIONAL AIRPORT	57.0	60.4	3.5
NM	ALBUQUERQUE	INTL AIRPORT-KIRTLAND AFB	67.5	69.6	2.0
NM	CLAYTON	MUNICIPAL AIRPORT	63.6	69.2	5.6
NM	ROSWELL	INDUSTRIAL AIR CENTER AP	74.2	78.2	4.0
NV	ELKO	MUNICIPAL AIRPORT	56.5	58.1	1.6
NV	ELY	YELLAND FIELD	56.4	57.0	0.6
NV	LAS VEGAS	MCCARRAN INTERNATIONAL APT	75.7	77.0	1.3
NV	RENO	CANNON INTERNATIONAL AP	62.3	62.9	0.6
NV	WINNEMUCCA	MUNICIPAL AIRPORT	60.4	60.3	-0.1
NY	ALBANY	ALBANY INTERNATIONAL AIRPT	52.4	54.8	2.4
NY	BINGHAMTON	BROOME COUNTY AIRPORT	48.7	50.7	2.1
NY	BUFFALO	GREATER BUFFALO INTL AIRPORT	50.4	53.7	3.3
NY	ISLIP	LONG ISLAND MACARTHUR APT	55.4	56.4	1.0
NY	NEW YORK	JFK INTERNATIONAL AIRPORT	55.5	57.5	2.0
NY	NEW YORK	LA GUARDIA AIRPORT	56.6	59.9	3.3
NY	NEW YORK C.PARK	CENTRAL PARK OBSERVATORY	56.6	59.2	2.6
NY	ROCHESTER	ROCHESTER-MONROE COUNTY AP	51.1	54.7	3.5
NY	SYRACUSE	HANCOCK INTERNATIONAL AIRPORT	51.5	54.0	2.4
OH	AKRON	AKRON-CANTON AIRPORT	54.0	55.8	1.8
OH	CLEVELAND	CLEVELAND HOPKINS INTL AIRPORT	53.0	55.2	2.3
OH	COLUMBUS	PORT COLUMBUS INTL AIRPORT	57.7	59.3	1.6
OH	COVINGTON/CINCINNATI	CINCINNATI/NORTHERN KY INT	59.4	60.9	1.5
OH	DAYTON	INTERNATIONAL AIRPORT	55.5	57.8	2.3

State	City	Location	Normal Average Maximum Temperature (°F): Jan-June, 1971-2000	Average Maximum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
OH	MANSFIELD	LAHM MUNICIPAL AIRPORT	53.4	55.5	2.1
OH	TOLEDO	TOLEDO EXPRESS AIRPORT	53.7	57.1	3.4
OH	YOUNGSTOWN	MUNICIPAL AIRPORT	53.2	55.6	2.4
OK	OKLAHOMA CITY	WILL ROGERS WORLD AIRPORT	66.7	73.2	6.5
OK	TULSA	INTERNATIONAL AIRPORT	66.9	71.9	5.0
OR	ASTORIA	CLATSOP COUNTY AIRPORT	55.3	56.3	1.0
OR	BURNS	MUNICIPAL APT.	53.8	53.9	0.1
OR	EUGENE	MAHLON SWEET FIELD	59.0	59.3	0.3
OR	MEDFORD	ROGUE VALLEY INTNRL AIRPT	62.9	63.5	0.7
OR	PENDLETON	MUNICIPAL AIRPORT	58.8	60.4	1.7
OR	PORTLAND	INTERNATIONAL AIRPORT	58.6	60.4	1.8
OR	SALEM	MC NARY FIELD	59.5	59.9	0.4
PA	ALLENTOWN	LEHIGH VALLEY INTRNL AIRPT	55.5	59.3	3.8
PA	AVOCA	WILKES-BARRE SCRANTON APT	54.5	55.9	1.4
PA	ERIE	TERMINAL BLDG.	52.1	53.4	1.3
PA	MIDDLETOWN/HARRISBURG	HARRISBURG INTERNATIONAL AIRPORT	57.6	60.0	2.5
PA	PHILADELPHIA	INTERNATIONAL AIRPORT	57.9	61.5	3.6
PA	PITTSBURGH	GREATER PITTSBURGH INTL AP	55.7	57.0	1.3
PA	WILLIAMSPORT	WILLIAMSPORT-LYCOMING CO AP	54.8	58.0	3.2
RI	PROVIDENCE	THEO FRANCIS GREEN STATE AP	54.7	56.3	1.6
SC	CHARLESTON	DOWNTOWN	70.0	70.9	0.9
SC	CHARLESTON	CHARLESTON INT'L AIRPORT	72.9	74.6	1.7
SC	COLUMBIA	COLUMBIA METROPOLITAN AIRPORT	71.7	73.3	1.6
SC	GREENVILLE-SPARTANBURG	GREER AIRPORT	67.0	70.5	3.5
SD	ABERDEEN	REGIONAL AIRPORT	49.4	53.4	4.0
SD	HURON	HURON REGIONAL AIRPORT	51.4	56.0	4.7
SD	RAPID CITY	RAPID CITY REGIONAL AIRPORT	53.4	58.7	5.3
SD	SIoux FALLS	FOSS FIELD	51.8	54.9	3.1
TN	BRISTOL-JHNSN CTY-KN	TRI-CITY AIRPORT	62.5	64.5	2.0
TN	CHATTANOOGA	LOVELL FIELD	67.2	69.6	2.4
TN	KNOXVILLE	MC GHEE TYSON AIRPORT	64.5	67.6	3.0
TN	MEMPHIS	INTERNATIONAL AIRPORT	67.9	70.9	2.9
TN	NASHVILLE	METROPOLITAN AIRPORT	65.0	67.9	2.9
TN	OAK RIDGE	OAK RIDGE	65.3	67.9	2.7
TX	ABILENE	MUNICIPAL AIRPORT	73.0	77.4	4.4
TX	AMARILLO	INTERNATIONAL AIRPORT	67.0	71.7	4.7
TX	AUSTIN/BERGSTROM	AUSTIN-BERGSTROM INTL APT	76.2	81.4	5.2
TX	BROWNSVILLE	BROWNSVILLE AIRPORT	79.8	84.6	4.9
TX	CORPUS CHRISTI	INTERNATIONAL AIRPORT	78.0	83.5	5.5
TX	DALLAS-FORT WORTH	REGIONAL AIRPORT	72.1	78.1	5.9
TX	DEL RIO	INTERNATIONAL AIRPORT	78.7	83.8	5.2
TX	EL PASO	INTERNATIONAL AIRPORT	75.2	79.0	3.9
TX	HOUSTON	INTERCONTINENTAL AIRPORT	76.2	79.0	2.7
TX	LUBBOCK	REGIONAL AIRPORT	70.6	76.5	5.9
TX	MIDLAND-ODESSA	MIDLAND INTERNATIONAL AIRPORT	74.8	78.5	3.7
TX	PORT ARTHUR	JEFFERSON COUNTY AIRPORT	75.1	78.4	3.4

State	City	Location	Normal Average Maximum Temperature (°F): Jan-June, 1971-2000	Average Maximum Temperature (°F): Jan-June, 2006	Degrees Above Normal (°F)
TX	SAN ANGELO	MATHIS FIELD	74.7	80.5	5.8
TX	SAN ANTONIO	INTERNATIONAL AIRPORT	76.9	82.9	6.0
TX	VICTORIA	VICTORIA REGIONAL AIRPORT	76.2	81.0	4.8
TX	WACO	WACO REGIONAL AIRPORT	74.0	78.8	4.8
TX	WICHITA FALLS	SHEPPARD AIR FORCE BASE	71.4	78.0	6.6
UT	SALT LAKE CITY	INTERNATIONAL AIRPORT	57.8	60.6	2.8
VA	LYNCHBURG	MUNICIPAL AIRPORT	62.8	65.3	2.5
VA	NORFOLK	INTERNATIONAL AIRPORT	63.4	65.5	2.1
VA	RICHMOND	R.E.BYRD INTERNATIONAL AP.	63.6	67.2	3.6
VA	ROANOKE	WOODRUM AIRPORT	63.2	65.4	2.2
VT	BURLINGTON	INTERNATIONAL AIRPORT	48.8	51.2	2.4
WA	OLYMPIA	OLYMPIA AIRPORT	56.4	58.1	1.7
WA	QUILLAYUTE	QUILLAYUTE STATE AIRPORT	54.6	54.8	0.2
WA	SEATTLE	SEATTLE-TACOMA AIRPORT	56.8	58.4	1.6
WA	SPOKANE	INTERNATIONAL AIRPORT	53.1	54.3	1.3
WA	YAKIMA	YAKIMA MUNICIPAL AIRPORT	59.2	60.2	1.0
WI	GREEN BAY	AUSTIN STRAUBEL FIELD	48.7	51.5	2.8
WI	LA CROSSE	MUNICIPAL AIRPORT	52.7	54.8	2.2
WI	MADISON	DANE COUNTY REGIONAL AIRPORT	50.5	53.5	3.0
WI	MILWAUKEE	GENERAL MITCHELL FIELD	49.9	52.4	2.5
WV	BECKLEY	RALEIGH COUNTY MEMORIAL AP	57.3	58.4	1.1
WV	CHARLESTON	YEAGER AIRPORT	61.5	63.6	2.1
WV	ELKINS	ELKINS-RANDOLPH COUNTY APT	58.2	59.0	0.7
WV	HUNTINGTON	TRI-STATE AIRPORT	61.1	63.9	2.9
WY	CASPER	NATRONA COUNTY INT'L AIRPORT	52.9	57.1	4.2
WY	CHEYENNE	MUNICIPAL AIRPORT	53.0	56.7	3.7
WY	LANDER	HUNT FIELD	53.1	57.2	4.2
WY	SHERIDAN	SHERIDAN COUNTY AIRPORT	53.4	59.3	5.8

END NOTES

-
- ¹ J. Hansen, et al., NASA Goddard Institute for Space Studies, *GISS Surface Temperature Analysis: Global Temperature Trends: 2005 Summation*, downloaded from data.giss.nasa.gov/gistemp/2005/, 23 May 2006.
- ² National Research Council, Division on Earth and Life Studies, *Surface Temperature Reconstructions for the Last 2,000 Years*, National Academies Press, Washington, D.C., 2006.
- ³ Ibid.
- ⁴ J. Hansen, et al., NASA Goddard Institute for Space Studies, *GISS Surface Temperature Analysis: Global Temperature Trends: 2005 Summation*, downloaded from data.giss.nasa.gov/gistemp/2005/, 23 May 2006.
- ⁵ J.E. Hansen et al., "NASA GISS Surface Temperature (GISTEMP) Analysis," in *Trends: A Compendium of Data on Global Change*, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A, 2006, downloaded from <http://cdiac.ornl.gov/trends/temp/hansen/hansen.html>, 7 September 2006.
- ⁶ L. V. Alexander, et al., "Global Observed Changes in Daily Climate Extremes of Temperature and Precipitation," *Journal of Geophysical Research*, 111, D05109, March 2006.
- ⁷ Ibid.
- ⁸ David R. Easterling, et al., "Maximum and Minimum Temperature Trends for the Globe," *Science*, 277, 18 July 1997.
- ⁹ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report – Climate Change 2001: Summary for Policy Makers, The Scientific Basis*, 2001.
- ¹⁰ J.T. Overpeck, et al., "Arctic System on Trajectory to New, Seasonally Ice-Free State," *Eos*, 86(34):309-316, August 2005.
- ¹¹ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report – Climate Change 2001: Summary for Policy Makers, The Scientific Basis*, 2001.
- ¹² Stephen Saunders and Maureen Maxwell, The Rocky Mountain Climate Organization, *Less Snow, Less Water: Climate Disruption in the West*, September 2005.
- ¹³ Eric Rignot and Pannir Kanagaratnam, "Changes in the Velocity Structure of the Greenland Ice Sheet," *Science*, 311, 986-990, 17 February 2006.
- ¹⁴ David R. Easterling, et al., "Maximum and Minimum Temperature Trends for the Globe," *Science*, 277, 18 July 1997.
- ¹⁵ P.D. Jones, et al., "Assessment of Urbanization Effects in Time Series of Surface Air Temperature over Land," *Nature*, 347, 1990.
- ¹⁶ David E. Parker, "Large-Scale Warming Is Not Urban," *Nature*, 432, 18 November 2004.
- ¹⁷ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report – Climate Change 2001: Summary for Policy Makers, The Scientific Basis*, 2001.
- ¹⁸ U.S. Environmental Protection Agency, *Global Warming – Impacts: Chesapeake Bay*, downloaded from yosemite.epa.gov/oar/globalwarming.nsf/content/ImpactsCoastalZonesChesapeakeBay.html, 23 May 2006.
- ¹⁹ National Oceanic and Atmospheric Administration, *Subsidence and Sea Level Rise in Louisiana: A Study in Disappearing Land*, 21 July 2003.
- ²⁰ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report – Climate Change 2001: Summary for Policy Makers, The Scientific Basis*, 2001.
- ²¹ Kerry Emanuel, "Increasing Destructiveness of Tropical Cyclones Over the Last 30 Years," *Nature*, 436:686-688, 4 August 2005.
- ²² P.J. Webster, et al., "Changes in Tropical Cyclone Number, Duration, and Intensity in a Warming Environment," *Science*, 309(5742):1844-1846, 16 September 2005.
- ²³ National Oceanic and Atmospheric Administration, *Noteworthy Records of the 2005 Atlantic Hurricane Season*, originally published 29 November 2005, updated 13 April 2006.
- ²⁴ Kevin E. Trenberth and Dennis J. Shea, "Atlantic Hurricanes and Natural Variability in 2005," *Geophysical Research Letters*, 33(12) L12704, 27 June 2006.
- ²⁵ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report – Climate Change 2001: Impacts, Adaptation and Vulnerability*, Chapter 9.4.1, 2001.

-
- ²⁶ Ibid.
- ²⁷ Data on records broken by the July 2006 heat wave from U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *Climate of 2006 – July in Historical Perspective*, 14 August 2006. Data on the number of people killed in the 2006 U.S. heat wave from Juliet Eilperin, “More Frequent Heat Waves Linked to Global Warming,” *Washington Post*, 4 August 2006.
- ²⁸ Peter A. Stott, D. A. Stone, & M. R. Allen, “Human Contribution to the European Heatwave of 2003,” *Nature*, 432, 2 December 2004; and Christoph Schar and Gerd Jendritzky, “Hot News from Summer 2003,” *Nature*, 432, 2 December 2004.
- ²⁹ Anthony J McMichael, Rosalie E. Woodruff, & Simon Hales, “Climate Change and Human Health: Present and Future Risks,” *The Lancet*, 367, 11 March 2006.
- ³⁰ David R. Easterling, et al., “Maximum and Minimum Temperature Trends for the Globe,” *Science*, 277, 18 July 1997.
- ³¹ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report – Climate Change 2001: Synthesis Report*, 2001.
- ³² World Meteorological Organization, *First WMO Greenhouse Gas Bulletin: Greenhouse Gas Concentrations Reach New Highs in 2004* (press release), 14 March 2006.
- ³³ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report – Climate Change 2001: Summary for Policy Makers, The Scientific Basis*, 2001.
- ³⁴ Historical emissions from U.S. PIRG Education Fund, *The Carbon Boom*, June 2006. Projected emissions from U.S. Department of Energy, Energy Information Administration, *Annual Energy Outlook*, February 2006.
- ³⁵ U.S. Department of Energy, Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, Table B3, December 2005.
- ³⁶ Ibid.
- ³⁷ Percentage of generation from U.S. Department of Energy, Energy Information Administration, *Electric Power Annual with Data for 2004*, November 2005; percentage of global warming emissions from electricity generation from U.S. Department of Energy, Energy Information Administration, *Emissions of Greenhouse Gases in the United States*, Table B3, December 2005.
- ³⁸ U.S. Department of Energy, Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, Table B3, December 2005.
- ³⁹ Historic emissions from U.S. Department of Energy, Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2004*, Table B3, December 2005. Projected emissions from U.S. Department of Energy, Energy Information Administration, *Annual Energy Outlook 2006*, February 2006.
- ⁴⁰ Ibid.
- ⁴¹ U.S. Department of Energy, Energy Information Administration, *International Energy Annual 2003*, 11 July 2005.
- ⁴² Ibid.
- ⁴³ Year-to-date mean temperature data from query generated at U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *U.S. Climate at a Glance, National*, <http://lwf.ncdc.noaa.gov/oa/climate/research/cag3/na.html>, 25 August 2006.
- ⁴⁴ State-by-state mean temperature data from queries generated at U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *U.S. Climate at a Glance, Statewide*, <http://lwf.ncdc.noaa.gov/oa/climate/research/cag3/state.html>, 25 August 2006.
- ⁴⁵ The National Climatic Data Center defines “much above normal” as “one of the warmest 11 such periods on record.” See <http://www.ncdc.noaa.gov/oa/climate/research/cag3/legends.html>.
- ⁴⁶ State-by-state mean temperature data from queries generated at U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *U.S. Climate at a Glance, Statewide*, <http://lwf.ncdc.noaa.gov/oa/climate/research/cag3/state.html>, 25 August 2006.
- ⁴⁷ Map generated from query for mean, 2006 year-to-date temperature data for the United States at U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *U.S. Climate at a Glance, Statewide*, <http://lwf.ncdc.noaa.gov/oa/climate/research/cag3/cag3.html>, 25 August 2006.

-
- ⁴⁸ State-by-state mean temperature data from queries generated at U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *U.S. Climate at a Glance, Statewide*, <http://lwf.ncdc.noaa.gov/oa/climate/research/cag3/state.html>, 25 August 2006.
- ⁴⁹ U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *Climate of 2006 – July in Historical Perspective*, 14 August 2006.
- ⁵⁰ Ibid.
- ⁵¹ State-by-state mean temperature data from queries generated at U.S. Department of Commerce, National Oceanic & Atmospheric Administration, National Climatic Data Center, *U.S. Climate at a Glance, Statewide*, <http://lwf.ncdc.noaa.gov/oa/climate/research/cag3/state.html>, 25 August 2006.
- ⁵² Ibid.
- ⁵³ Ibid.
- ⁵⁴ L. V. Alexander, et al., “Global Observed Changes in Daily Climate Extremes of Temperature and Precipitation,” *Journal of Geophysical Research*, 111, D05109, March 2006.
- ⁵⁵ David R. Easterling, et al., “Maximum and Minimum Temperature Trends for the Globe,” *Science*, 277, 18 July 1997.
- ⁵⁶ Ibid.
- ⁵⁷ Rachel Warren, “Impacts of Global Climate Change at Different Annual Mean Global Temperature Increases,” in Hans Joachim Schnellhuber, ed., *Avoiding Dangerous Climate Change*, Cambridge University Press, 2006; and Malte Meinshausen, “What Does a 2° C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates,” in Hans Joachim Schnellhuber, ed., *Avoiding Dangerous Climate Change*, Cambridge University Press, 2006.
- ⁵⁸ U.S. PIRG Education Fund, *Rising to the Challenge: Six Steps to Cut Global Warming Pollution in the United States*, Summer 2006.
- ⁵⁹ Weather 2000, “List of National Weather Service 1st Order Stations, Continental U.S.,” downloaded from www.weather2000.com/1st_order_wbans.txt, 14 August 2006. This list does not include stations in Alaska or Hawaii.
- ⁶⁰ U.S. Department of Commerce, National Oceanic & Atmospheric Administration, *Comparative Climatic Data*, 2005, downloaded from http://www1.ncdc.noaa.gov/pub/data/ccd-data/CCD_2005.pdf, 14 August 2006.
- ⁶¹ U.S. Department of Commerce, National Oceanic & Atmospheric Administration, *Comparative Climatic Data*, 2005, Data Tables, “Normal Daily Maximum Temperature, Degrees F,” <http://www.ncdc.noaa.gov/oa/climate/online/ccd/nrmmmax.txt>; “Normal Daily Minimum Temperature, Degrees F,” <http://www.ncdc.noaa.gov/oa/climate/online/ccd/nrmmmin.txt>; and “Normal Daily Mean Temperature, Degrees F,” <http://www.ncdc.noaa.gov/oa/climate/online/ccd/nrmavg.txt>. Last accessed 14 August 2006.