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# Climate of Salt Lake City, Utah 

William J. Alder<br>Laurence S. Nierenberg<br>Sean T. Buchanan<br>William Cope<br>James A. Cisco<br>Craig C. Schmidt

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## Authors

William J. Alder, Laurence S. Nierenberg, Sean T. Buchanan, William Cope, James A. Cisco, Craig C.
Schmidt, Alexander R. Smith, and Wilbur E. Figgins


NOAA TECHNICAL MEMORANDUM NWS WR-152


## CLIMATE OF SALT LAKE CITY, UTAH

William J. Alder, Laurence S. Nierenberg, Sean T. Buchanan, William Cope (Retired), James A. Cisco, Craig C. Schmidt, Alexander R. Smith (Retired), Wilbur E. Figgins (Retired)
National Weather Service Forecast Office Salt Lake City, Utah

February 1998
Seventh Revision

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NOAA TECHNICAL MEMORANDUM NWS WR-152

## CLIMATE OF SALT LAKE CITY, UTAH

William J. Alder, Laurence S. Nierenberg, Sean T. Buchanan, William Cope (Retired), James A. Cisco, Craig C. Schmidt, Alexander R. Smith (Retired), Wilbur E. Figgins (Retired) National Weather Service Forecast Office Salt Lake City, Utah

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Delain A. Edman, Chief
Scientific Services Division
Salt Lake City, Utah

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## I. INTRODUCTION

The purpose of this publication is to attempt to bring together under one cover as much data as possible concerning the climate of Salt Lake City. This was a difficult undertaking because of the wide variance of climate in the Salt Lake area. The Wasatch Mountain range, immediately east of the city, and the location of the Great Salt Lake, a short distance to the west, cause a great difference in local microclimates.

The Salt Lake City weather records began over 100 years ago; however, the statistics in this report are based on the airport weather records which began May 1, 1928. The airport location continues to the present to be the National Weather Service's official weather observing location for the Salt Lake City area. This provides us with over 6 decades of continuous weather information that was observed from an existing or comparable exposure location. However, it must be remembered that various extremes stated in this paper have, no doubt, been exceeded at other sites in the locality. Any summary such as this must be taken in the context of giving a general view of Salt Lake Valley conditions, with the details only being applicable to the airport environs.

## II. GEOGRAPHICAL AND CLIMATOLOGICAL SUMMARY

Salt Lake City is located in a northern Utah valley surrounded by mountains on three sides and the Great Salt Lake to the northwest. The city varies in altitude from near 4200 feet to 5000 feet above sea level (ASL).

The Wasatch Mountains to the east have peaks to nearly 12,000 feet ASL. Their orographic effects cause more precipitation in the eastern part of the city than over the western part.

The Oquirrh Mountains to the southwest of the city have several peaks to above 10,000 feet ASL. The Traverse Mountain Range at the south end of the Salt Lake Valley rises to above 6,000 feet ASL. These mountain ranges help to shelter the valley from storms from the southwest in winter, but are instrumental in developing thunderstorms which can drift over the valley in the summer.

Besides the mountain ranges, the most influential natural condition affecting the climate of Salt Lake City is the Great Salt Lake. This large inland body of water, which never freezes over due to its high salt content, can moderate the temperatures of cold winter winds blowing from the northwest and helps drive a lake/valley wind system. The warmer lake water during the fall through the spring also contributes to increased precipitation in the valley downwind from the lake. The combination of the Great Salt Lake and the Wasatch Mountains often enhances storm precipitation in the valley.

Salt Lake City normally has a semi-arid continental climate with four well-defined seasons. Summers are characterized by hot, dry weather, but the high temperatures are usually not oppressive since the relative humidity is generally low and the nights usually cool. July is the hottest month with average maximum readings in the nineties.

The average temperature range is about 30 degrees in the summer and 18 degrees during the winter. Summer temperatures above 102 degrees or winter temperatures colder than -10 degrees occur only 1 season out of 4 .

Winters are cold, but usually not severe. Mountains to the north and east act as a barrier to frequent invasions of cold continental air. The average annual snowfall is under 60 inches at the airport, but much greater amounts fall on higher bench locations. Heavy fog often develops under temperature inversions in the winter and can persist for several days.

Precipitation, generally light during the summer and early fall, reaches a maximum in the spring when storms from the Pacific Ocean are moving through the area more frequently than in any other season of the year.

Winds are usually light, although occasional high winds have occurred in every month of the year, particularly in March.

The growing season, or freeze-free period, averages over 5 months in length. Yard and garden foliage generally are making good growth by mid April. The last freezing temperature in the spring normally occurs in late April with the first fall freeze normally occurring in mid October.

## III. HISTORY OF WEATHER OBSERVATIONS AT SALT LAKE CITY

The first published weather observations of the Salt Lake area were taken in the summer of 1847 by William W. Phelps, who entered the Salt Lake valley with the Brigham Young company in July 1847. During the 1850's and 1860's, W.W. Phelps probably took most of his weather observations on or near his property that was located on the northwest corner of West Temple and 100 South Street in downtown Salt Lake City.

On January 12, 1857, W.W. Phelps presented to the Utah legislature a resolution creating the office of Superintendent of Meteorological Observations. The resolution was accepted and Phelps was appointed to fill the position. As Superintendent, Phelps used weather instruments from the Smithsonian Institution and private sources to furnish daily and monthly weather observations and summaries to the city's newspaper, the Deseret News. Figure 1 shows two of these summaries -- dated December 1857 and November 1861.
W.W. Phelps died on March 6, 1872. Subsequently, Marcus E. Jones, a professor of Botany at Salt Lake College (in 1880) and President of the Utah Academy of Science (in 1914), obtained Phelp's weather data from the Deseret News and corrected and summarized Phelp's daily weather records into monthly tabulations for the years 1847 to 1867 . See figure 2.

In March 1874, the U.S. Army Signal Service of the United States government began taking official weather observations for the Salt Lake City area. Their weather station was located in a corner room on the third floor of the "Exchange Building" on the southeast corner of East Temple and First South Streets.

On July 1, 1891, the U.S. Weather Bureau was established and made part of the Department of Agriculture. At this time many Army Signal Corps personnel doffed their Army uniforms and became members of the Weather Bureau. The first civilian official in charge of the Weather Bureau Office was formerly an Army official.

Through the years, the downtown Salt Lake Weather office changed locations several times. In succession, the office was located at the following addresses:

March 19, 1874, to June 29, 1876: Corner room on the third floor of the "Exchange Building" or "Godbe Building" on the southeast corner of East Temple and First South Streets.

June 29, 1876, to July 31, 1891: In two rooms on the fourth floor of the Wasatch Hotel, southeast corner of Main and Second South Streets.

## FIGURE 1

Meteorological Observations for December, 1857, by H.E. Phelps in Salt Lake City, Utah. Taken from the Deseret News, January 6, 1858.

Meteorological Observations for November, 1861, by W.W. Phelps in Salt Lake City, Utah Taken from the Deseret News, Janary 8, 1862.



## FIGURE 2

Copy of M.E. Jones Revision of Phelp's and Son's Record
Form No. 1078-Met'2.


July 31, 1891, to March 15, 1899: Board of Trade Building at 154 West Second South Street, in ROOMS 50, 51, AND 52 ON THE 5TH FLOOR.

March 15, 1899, to July 1, 1909: Southeast corner of Second South and West Temple Streets, on the 6th floor, rooms 601, 628, and 629. On July 1, 1904, the office quarters were expanded to include rooms 630 and 631.

July 1, 1909, to December 1, 1932: Boston Building on the corner of Main Street and Exchange Place occupying office rooms 1103 through 1107 in the east end of the penthouse and the east corner of the garret. Starting on May 1, 1928, an additional office was opened at the new airport west of downtown Salt Lake City.

December 1, 1932, to August 15, 1954: 501 Federal Building located at Main and Fourth South Streets.
August 15, 1954, to present: The city office was closed and its functions moved to the airport.
The Wright brothers ushered in the flying age and with it the demand for supporting airports around the country. As mentioned above, the Weather Bureau expanded their mode of operation to meet this challenge. On May 1, 1928, the Weather Bureau established a first-order weather station at the Salt Lake Municipal Airport, 3-3/4 miles west-northwest of the downtown Federal Building at latitude $40^{\circ} 46^{\prime}$ and longitude $111^{\circ} 58$ '. The station was located in a small house in the southeast corner of the airport complex, east of the United Airlines hangar. Elevation at the observing site was 4222 feet ASL.

The airway and pibal observations began on the opening date with the first weather observation being taken at 6:00 a.m. May 1, 1928. The wind anemometer was located 47 feet above the ground. The thermometers were installed in a standard Weather Bureau instrument shelter with the thermometers 5 feet above the ground. The precipitation gages were placed approximately 6 feet west of the shelter with the base on the ground and top or opening 3 feet above the ground. On June 11, 1933, the weather-observing equipment was moved 800 feet north of the original location to the roof of the Airport Administration Building which was a two-story structure. The temperature apparatus was installed in a standard Weather Bureau instrument shelter with the thermometer being located 5 feet above the roof and 33 feet above ground level. The rain gages were installed on the same roof, about 20 to 25 feet immediately north of the instrument shelter. The wind instrument was 18 feet above the second-story roof or 46 feet above ground level.

During the winter of 1943-1944, a third floor was added to the Administration Building. Although the instrument shelter was able to remain on the second-story roof, just south of the new third story, the rain gages were moved to the roof of the third floor on April 1, 1944, making them 41 feet above ground level.

On July 2, 1954, the station was moved to the one-story Federal Aviation Agency - Weather Bureau Office building at 174 North 2300 West Streets or some 325 feet southeast of the previous location. The wind instruments were 33 feet above the ground, temperature instruments 6 feet above the ground, and rain gages 3 feet above the ground.

On July 29, 1960, automatic temperature and wind-measuring equipment were moved to near the major runway 3600 feet northwest of the Government building.

On March 8, 1978, the station was moved to the Executive Terminal building at 337 North 2370 West Streets approximately $1 / 4$ mile north of the 1954 location. Wind, temperature, dew point, and visibility measuring equipment were remote sensors and were located adjacent to the main airport runway. Precipitation, solar radiation, and standby temperature measuring equipment were located about 300 feet east of the station. The new elevation of the station was 4227 feet ASL.

Ceilometer equipment, which automatically observes and records cloud heights, was first installed at the airport on March 5, 1946. The projector was located 1463 feet north of the observing quarters, and the ceilometer scanner was located on the roof of the first floor of the Administration Building about 80 feet north of the observing quarters. On October 31, 1958, a rotating beam ceilometer, with a baseline of 800 feet, was installed $1 / 4$ mile south of the main airport runway, and then on December 12, 1976, relocated to be near the south end of the main airport runway about 4700 feet west-northwest of the Forecast Office.

On August 11, 1994, the weather office was relocated to the extreme southeast corner of the airport complex at 2242 West North Temple Street. This is about 3400 feet southeast of the previous location. The elevation of the station continued to be 4227 feet ASL. On November 15, 1994 the forecast office accepted and began using a Doppler Radar which was located on Promontory Point at the north end of the Great Salt Lake.

The present state of the art of both observing and forecasting the weather is constantly being re-evaluated for improvement. New computer-age technology is replacing the older, and often times, cumbersome methods of producing the various weather products issued to the public and special user groups. Weather forecasting programs have been developed that are especially tailored for special problem areas. The fire-weather forecasting program is a typical example. Specifically trained meteorologists utilize mobile self-contained weather stations and report directly to forest or range fire fighting crews. They give on-the-spot observations and forecasts of wind direction and speed, temperature, humidity, and other selected parameters required for maximum support to the fire fighting crews. Other special weather support programs include those in fruit-frost cooperative observing and forecasting, air pollution, aviation, and local forecasting. All these are in addition to the regular public service duties.

Climatology is an input in many of these programs. Certain combinations of pressure, wind, moisture, modified by topographical combinations yield specific characteristics of "weather". The only problem is that the atmosphere is so vast in its global scale that local combinations of specific weather yielding parameters are very difficult to duplicate. "Man" by his very existence is constantly changing the landscape--laying miles or acres of pavement and cement, building heating and cooling systems, and other modern-day miracle aids--and in the process, influencing Mother Nature's natural local temperature and wind circulation patterns.

## IV. SELECTED HIGHLIGHTS OF THE SALT LAKE CITY AIRPORT WEATHER RECORDS

When the all-time high temperature of 107 degrees occurred on July 26,1960 , the surface winds, for the most part, were southerly 5-12 mph through the night and morning hours shifting to northerly 5-9 mph during the afternoon. At $3 \mathrm{p} . \mathrm{m}$. the temperature was 103 degrees with 8 tenths of the sky covered by a combination of cumulonimbus and cirrus type clouds. The clouds thinned out during the next couple of hours and the record maximum temperature of 107 was reached. The morning minimum on the 26th of July was 63 degrees, which was only one degree warmer than the normal minimum for that date. Increasing cloudiness the following day, July 27th, accounted for a slight drop in the maximum temperature to 104 degrees. Maximum temperatures continued to decrease the next two days--down to 101 on the 28th, and finally on the 29th, down to an even 100 degrees.

February 9, 1933, was the date of the lowest temperature ever recorded at the Salt Lake airport which was 30 degrees below zero. The mercury managed to climb to 8 degrees above zero for the afternoon maximum. It was cold again the next day, February 10th, with a minimum of 26 degrees below zero. But on February 11 th, the short cold snap was broken when a snow storm moved over the area and the minimum temperature rose to 1 degree above zero.

The snowiest month of the year is January with an average of 9 days with snowfall of 0.1 inch or more, and with an average monthly snowfall total of 13.2 inches. The greatest monthly snowfall total at the Salt Lake Airport was 50.3 inches that fell in January 1993.

It may be surprising to many to note that significant amounts of snow can fall as late as April. In April 1974, a total of 26.4 inches of snow fell at the Salt Lake Airport. This not only set the record for the most snow ever accumulated in the month of April, but was also the greatest monthly snowfall for the entire 1973-74 season. April 1984 was also a very snowy month with a total accumulation of 25.1 inches.

April has the distinction of having the highest average monthly precipitation with 2.21 inches followed by March with an average of 1.72 inches. The greatest total monthly precipitation of 7.04 inches fell in September 1982 when moisture from the remains of hurricane Olivia moved north through Utah. The driest month of the year is July with a monthly precipitation average of only 0.72 inches. The next driest is September with a monthly average of 0.89 inches.

The maximum 24 hour precipitation (not confined to a calendar day) ever recorded at the Salt Lake Airport was 2.41 inches on April 22-23, 1957. The maximum one hour precipitation of 1.94 inches was recorded during heavy thundershowers between noon and $1 \mathrm{p} . \mathrm{m}$. on July 13, 1962. On that same day, hailstones up to one half inch in diameter fell, and the total 24 hour rainfall was 2.28 inches.

## V. LOCAL TOPOGRAPHY EFFECTS UPON THE SALT LAKE WEATHER

Snowfall enhancement along and downwind of the Great Salt Lake is often observed. On occasion it appears that the snow area extends continuously from the lee shores of the lake to the windward slopes of the nearby mountains. The theory of this phenomenon is as follows. The Great Salt Lake, due to its high salt content, never freezes during the winter. Cold air masses moving from the Pacific or out of Canada during the fall and winter months are sometimes much colder than the water surface of the lake. As these cold air masses pass over the lake, the air is modified by the absorption of heat and moisture rising off the surface of the lake and becomes more unstable, causing what is referred to as a "lake effect" snowstorm.

An example would be, air carried by west to northwest winds blowing across the Great Salt Lake in the rear of a winter low pressure system gaining both moisture and instability over the water. Then, the induced vertical motion due to differential friction as the air moves off the water to land results in bands of heavy snow in the valley. Nearby mountain ranges force the air to be cooled by the orographic lift up the mountain slopes. This orographic lift often prolongs and increases precipitation along the windward slopes of the mountains. One such "lake effect" snow storm occurring October 17-18, 1984, was documented by WSFO Salt Lake City forecaster David Carpenter in NOAA Technical Memorandum NWS WR-190.

The surface wind pattern around the Salt Lake Valley and adjacent bench areas is greatly influenced by local topography. For example, the Great Salt Lake is responsible for local lake breezes, which usually develop by late morning or early afternoon and continues until sunset. After sunset and through the night, the surrounding mountains produce canyon breezes which extend down into the valleys..

The Great Salt Lake breeze is caused by the temperature difference of the colder lake surface and the warmer adjacent land when it is heated by the sun. Because the air over the land is warmer, it rises and is replaced by the cooler air from the lake surface. This breeze usually blows on relatively calm, sunny, summer days, and alternates with the oppositely directed nighttime land breeze or canyon breeze.

Canyon breezes occur almost every night when the sky is clear or partly cloudy. They are the result of the radiational cooling of the surface layer of air on the mountain slopes. This air cools much faster than air at the same level in the free atmosphere over the valley and, hence, sinks. The air aloft flowing toward the mountain slope to replace this sinking air gives a circulation similar to the sea-breeze circulation. Such breezes usually do not extend more than a few miles into the valleys and rarely reach excessive speeds. In fact, during the summer these cool winds are a refreshing change from the heat of the day. Only when this nocturnal cooling process is reinforced by large scale circulation do the winds reach high speeds.

Canyon winds are one form of topographic wind that create serious problems several times each year. These winds occur when strong high pressure develops over Wyoming and significantly lower pressure develops in Utah and/or Nevada. When surface pressure differences are significant between the two areas, moderate to strong easterly canyon winds blow out of the canyon mouths along the Wasatch Front from Cache to Utah counties. Occasionally the cold polar or arctic air associated with high pressure in Wyoming is deep enough to spill over the mountains. Sometimes this can result in easterly winds blowing from the mouths of canyons and steep slopes of the Wasatch Mountains into the nearby valleys. In extreme cases these winds can exceed hurricane force. In some circumstances these winds can extend into the valley. Canyon winds can cause snow to drift over heavily traveled highways, break tree limbs, topple structures, and, in general, make life unpleasant.

A strong southwest flow that proceeds a pacific cold front sometimes causes the Salt Lake Valley to experience a "rain shadow" effect. This is known as the "Oquirrh shadow," and it can prevent the Salt Lake valley from receiving significant precipitation. The area is protected by strong winds aloft that downslope the Oquirrh mountains, causing air to warm and dry out by compression. Moderate to strong southerly winds are usually an indication of a significant storm to hit the Salt Lake area. Strong northwesterly winds often blow behind a cold front and can cause havoc for drivers along interstate 80 between Salt Lake City and Wendover. These winds kick up waves along the shores of the Great Salt Lake and can cause blowing salt and sand, sometimes reducing visibilities to as low as 100 feet across the west desert. These winds often deposit a foul smelling odor in the Salt Lake Valley, known as "Lake Stink." The Lake stink is a combination of decomposing algae and brine shrimp.

## VI. AIR POLLUTION AND TRAPPED AIR

Air pollution caused by stagnant air trapped under temperature inversions is another big part of the Salt Lake Valley weather regime. In Salt Lake City, the worst air stagnation occurs with stationary high pressure, both at the surface and aloft, and mainly in the months of November through February. Under this weather pattern, the wind is largely controlled by local topography rather than ambient pressure gradients; hence, it is very light and subject to diurnal variation. These light winds, when combined with frequent snow cover during the winter months, result in strong nighttime radiational cooling. At the same time, it is usually getting warmer aloft. This creates a strong surface-based temperature inversion under which cold, stable air is trapped in the valley. This air often becomes very stagnant. Such a stagnant layer is generally confined to below 6,000 feet ASL and diurnal heating is frequently unable to activate much vertical mixing in the stagnant layer. Under these conditions, bench locations above 6,000 feet ASL surrounding the valley often enjoy good ventilation or movement of air and may be much warmer than valley locations. These conditions are, respectively, due to the fact that the wind above 6,000 feet ASL is usually still controlled by pressure gradients and frequently stronger than the lower level winds, and by the fact that it is relatively warmer aloft.

There are situations that can allow some air mixing in the Salt Lake Valley that may present a problem at the surrounding higher elevations. This can happen when there is a subsidence inversion or stable layer of air between about 6 and 12 thousand feet. Subsidence is a descending motion of air in the atmosphere. A subsidence inversion is a temperature inversion produced by the adiabatic warming of this layer of subsiding air. In an adiabatic process, compression or descending motion always results in warming. Rising motion results in expansion and cooling. Surface heating usually allows mixing of the air to the base of this stable layer aloft, which gives a moderate mixing depth of air in the valley. However, if the base of the stable layer is at or just above the surrounding mountain areas, surface heating may not affect it so that it may severely restrict the vertical transport of pollutants.

## VII. SOLAR ENERGY AND SKY COVER

The average annual amount of sky cover at the Salt Lake Airport (sunrise to sunset), based on a range of 0 tenths for no clouds or obscuring phenomena to 10 tenths for overcast conditions, is 5.5 tenths. The months with the highest average amount of sky cover are December and January with 7.1 tenths and 7.2 tenths respectively. The months with the lowest average sky cover are July and September with both averaging 3.5 tenths, followed closely by August with 3.6 tenths.

Based on the definition that the sky is cloudy with 8 tenths to 10 tenths of cloud cover, partly cloudy with 4 tenths to 7 tenths cloud cover, and clear with 0 tenths to 3 tenths cloud cover, there is an annual average of 134 cloudy days at the Salt Lake Airport, 103 partly cloudy days, and 128 clear days. These values are somewhat misleading because they are based on total cloud cover without any distinction between opaque and thin clouds. Some of the days listed in our climatological data as cloudy may have experienced only high, thin clouds covering 8 tenths to 10 tenths of the sky with only a few tenths of these clouds actually dense enough to block out the sun or sky.

Because solar energy is being increasingly emphasized as an alternative to fossil fuels, a more meaningful statistic than amount of sky cover may be the percent of possible sunshine received. At the Salt Lake Airport, the annual average percent of possible sunshine received is 70 percent. The sunniest days of the year are in July and September with each of these months receiving 84 percent of possible sunshine. The lowest average amount of possible sunshine is received in December with 40 percent followed by January with 48 percent.

Sunlight is usually measured in footcandles, the illuminance provided by a light source of one candle at a distance of one foot and only the visible portion of the solar spectrum is used. Full sunlight, when the sun is at its zenith, produces an illuminance of the order of 10,000 footcandles on a horizontal surface compared to full moonlight, which provides an illuminance of only about 0.02 footcandles.

The energy from this sunlight is measured in kilojoules per square meter or the langley unit which is defined as a unit of energy per unit area and is equal to one gram-calorie per square centimeter. To convert kilojoules to langleys, you multiply the kilojoule value by 0.02390 .

An accurate conversion of these illumination/radiation factors is impossible, but a rough comparison on a cloudy or a cloudless day is as follows: to convert langley per minute to footcandles on a cloudy day, multiply by 7,000 .

The mean daily solar radiation (in langleys) at Salt Lake City by month is as follows: January 163, February 256, March 354, April 479, May 570, June 621, July 620, August 551, September 446, October 316, November 204, and December 146 for an annual average of 394.

## VIII. ACKNOWLEDGMENTS

Mr. Wilbur E. Figgins (retired) is responsible for the original research and preparation of this document. Since Mr. Figgins retirement in 1985 until the fall of 1989, Alexander Smith (retired) of the Salt Lake City WSFO staff undertook the responsibility of keeping it updated, as well as computerizing much of the content. Craig Schmidt was responsible for the maintenance and reformatting of the document through September of 1991. James Cisco took over Craig Schmidt's responsibilities until November of 1994. William Cope (retired) was responsible for updating much of the new material until his retirement in April of 1995. Sean Buchanan took over the responsibility of updating, reformatting, and creating new information for the climate book in August of 1995 to December 1995. From January 1996 to the present, Laurence Nierenberg assumed the responsibility of updating the records and creating new tables for the climate book.

We would like to thank Mr. William Alder, Meteorologist in Charge, Salt Lake City Weather Service Forecast Office, for his encouragement, direction, and support in helping us complete this project. We are very grateful to Mr. L. W. Snellman, former Chief, Scientific Services Division, Western Region Headquarters, for his initial review, suggestions, candor, expertise, and encouragement to pursue the project. Additionally, our gratitude to Mr. Dean Jackman, former Deputy Meteorologist in Charge (retired), Salt Lake City WSFO, for his assistance in historical research, and for the use of information from his air pollution studies. Finally, our thanks to all individuals, past and present, whose attempts at organizing these records made our work easier.

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SCALE: 1 Inch Equals 2 Miles.


Local Topography and Map of Salt Lake Airport and Vicinity.

|  | JAN. |  | FEB. |  | MAR. |  | APR. |  | MAY |  | JUNE |  | JULY |  | AUG. |  | SEPT. |  | OCT. |  | NOV. |  | DEC. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DAY | Riso A.M. | $\begin{aligned} & \text { Set } \\ & \text { P.M. } \end{aligned}$ | $\begin{aligned} & \text { Rise } \\ & \text { A.M. } \end{aligned}$ | $\begin{aligned} & \text { Sel } \\ & \text { P.M. } \end{aligned}$ | $\begin{aligned} & \text { Rise } \\ & \text { A.M. } \end{aligned}$ | $\begin{aligned} & \text { Sot } \\ & \text { P.M. } \end{aligned}$ | $\begin{aligned} & \text { Riso } \\ & \text { A.M. } \end{aligned}$ | Set P.M. |  | $\begin{aligned} & \text { Sot } \\ & \text { P.M. } \end{aligned}$ |  | $\begin{aligned} & \text { Sol } \\ & \text { P.M. } \end{aligned}$ | $\begin{aligned} & \text { Rise } \\ & \text { A.M. } \end{aligned}$ | $\begin{aligned} & \text { Sel } \\ & \text { P.M. } \end{aligned}$ | $\begin{aligned} & \text { Rise } \\ & \text { A.M. } \end{aligned}$ | $\begin{aligned} & \text { Sel } \\ & \text { P.M. } \end{aligned}$ | $\begin{aligned} & \text { Riso } \\ & \text { A.M. } \end{aligned}$ | $\begin{aligned} & \text { Set } \\ & \text { P.M. } \end{aligned}$ | ${ }^{180}$ | Set <br> P.M. | Rise <br> A.M. | Sel P.M. | Riso A.M. | $\begin{aligned} & \text { Set } \\ & \text { P.M. } \end{aligned}$ |
| 1 | 752 | 511 | 738 | 545 | 702 | 619 | 612 | 652 | 5 | 724 | 459 | 753 | 500 | 803 | 524 | 744 | 55 | 701 | 624 | 610 | 658 | 5 | 732 | 501 |
| 2 | 752 | 512 | 737 | 546 | 701 | 620 | 610 | 653 | 525 | 725 | 458 | 753 | 500 | 803 | 525 | 743 |  | 659 | 625 | 609 | 659 | 523 | 734 | 501 |
| 3 | 752 | 513 | 736 | 548 | 659 | 621 | 609 | 654 | 524 | 726 | 458 | 754 | 501 | 803 | 526 | 741 | 556 | 657 | 626 | 607 | 700 | 522 | 735 | 501 |
| 4 | 752 | 514 | 735 | 549 | 658 | 622 | 607 | 656 | 523 | 727 | 458 | 755 | 502 | 803 | 527 | 740 | 557 | 656 | 627 | 605 | 702 | 521 | 736 | 500 |
| 5 | 752 | 515 | 734 | 550 | 656 | 623 | 605 | 657 | 522 | 728 | 457 | 756 | - 502 | 802 | 528 | 739 | 558 | 654 | 628 | 604 | 703 | 520 | 736 | 500 |
| 6 | 752 | 515 | 733 | 551 | 655 | 624 | 604 | 658 | 521 | 729 | 457 | 756 | 503 | 802 | 529 | 738 | 559 | 652 | 629 | 602 | 704 | 519 | 737 | 500 |
|  | 752 | 516 | 732 | 553 | 653 | 626 | 602 | 659 | 519 | 730 | 457 | 757 | 503 | 802 | 530 | 737 | 600 | 651 | 630 | 601 | 705 | 518 | 738 | 5100 |
|  | 752 | 517 | 731 | 554 | 651 | 627 | 601 | 700 | 518 | 731 | 456 | 757 | 504 | 801 | 531 | 735 | 601 | 649 | 631 | 559 | 706 | 517 | 739 | 500 |
|  | 752 | 518 | 730 | 555 | 650 | 628 | 559 | 701 | 517 | 732 | 456 | 758 | 505 | 801 | 532 | 734 | 602 | 647 | 632 | 557 | 707 | 515 | 740 | 500 |
| 10 | 752 | 519 | 729 | 556 | 648 | 629 | 557 | 702 | 516 | 733 | 456 | 758 | 505 | 801 | 533 | 733 | 603 | 646 | 633 | 556 | 709 | 515 | 741 | 0 |
| 11 | 752 | 521 | 727 | 558 | 6 | 630 | 556 | 703 | 515 | 734 | 456 | 759 | 506 | 800 | 5 | 732 | 604 | 644 | 634 | 554 | 710 | 514 | 742 | 500 |
| 12 | 7.51 | 522 | 726 | 559 | 645 | 631 | 554 | 704 | 514 | 735 | 456 | 759 | 507 | 800 | 535 | 730 | 605 | 642 | 636 | 553 | 711 | 513 | 743 | 500 |
| 13 | 751 | 523 | 725 | 600 | 643 | 632 | 553 | 705 | . 513 | 736 | 456 | 800 | 507 | 759 | 536 | 729 | 606 | 641 | 637 | 551 | 712 | 512 | 743 | 501 |
| 14 | 751 | 524 | 724 | 601 | 642 | 633 | 551 | 706 | 512 | 737 | 456 | 800 | 508 | 759 | 537 | 728 | 607 | 639 | 638 | 549 | 713 | 511 | 744 | 501 |
| 15 | 750 | 525 | 722 | 602 | 640 | 634 | 549 | 7.07 | 511 | 738 | 456 | 801 | 509 | 758 | 538 | 726 | 608 | 637 | 639 | 548 | 715 | 510 | 745 | 01 |
| 16 | 750 | 526 | 721 | 604 | 638 | 635 | 548 | 708 | 510 | 739 | 456 | 801 | 510 | 757 | 539 | 725 | 609 | 636 | 640 | 546 | 716 | 509 | 746 | 501 |
| 17 | 749 | 527 | 720 | 605 | 637 | 637 | 546 | 709 | 509 | 740 | 456 | 802 | 511 | 757 | 540 | 723 | 610 | 634 | 641 | 515 | 717 | 508 | 746 | 502 |
| 18 | 749 | 528 | 718 | 606 | 635 | 638 | 545 | 710 | 508 | 741 | 456 | 802 | 511 | 756 | 541 | 722 | 611 | 632 | 642 | 543 | 718 | 508 | 747 | 502 |
| 19 | 748 | 529 | 717 | 607 | 633 | 639 | 543 | 711 | 507 | 742 | 456 | 802 | 512 | 755 | 542 | 721 | 612 | 631 | 643 | 542 | 719 | 507 | 747 | 5.03 |
| 20 | 748 | 531 | 716 | 608 | 632 | 640 | 542 | 712 | 506 | 743 | 456 | 802 | 513 | 755 | 543 | 719 | 613 | 629 | 644 | 541 | 720 | 506 | 748 | 503 |
| 21 | 747 | 532 | 714 | 610 | 630 | 641 | 541 | 713 | 506 | 744 | 456 | 803 | 514 | 754 | 544 | 718 | 614 | 627 | 645 | 539 | 722 | 506 | 749 | 503 |
| 22 | 746 | 533 | 713 | 611 | 628 | 642 | 539 | 714 | 505 | 745 | 457 | 803 | 515 | 753 | 545 | 716 | 615 | 625 | 647 | 538 | 723 | 505 | 749 | 504 |
| 23 | 746 | 534 | 711 | 612 | 627 | 643 | 538 | 715 | 504 | 745 | 457 | 803 | 516 | 752 | 546 | 715 | 616 | 624 | 648 | 536 | 724 | 504 | 750 | 504 |
| 24 | 745 | 535 | 710 | 613 | 625 | 644 | 536 | 716 | 503 | 746 | 457 | 803 | 517 | 751 | 547 | 713 | 617 | 622 | 649 | 535 | 725 | 504 | 750 | 505 |
| 25 | 744 | 537 | 708 | 614 | 623 | 645 | 535 | 718 | 503 | 747 | 457 | 803 | 517 | 751 | 548 | 712 | 618 | 620 | 650 | 533 | 726 | 503 | 750 | 506 |
| 26 | 744 | 538 | 707 | 615 | 622 | 646 | 533 | 719 | 502 | 748 | 458 | 803 | 518 | 750 | 549 | 710 | 619 | 619 | 651 | 532 | 727 | 503 | 751 | 506 |
| 27 | 743 | 539 | 705 | 617 | 620 | 647 | 532 | 720 | 501 | 749 | 458 | 803 | 519 | 749 | 550 | 709 | 620 | 617 | 652 | 531 | 728 | 502 | 751 | 507 |
| 28 | 742 | 540 | 704 | 618 | 618 | 648 | 531 | 721 | 501 | 750 | 459 | 803 | 520 | 748 | 550 | 707 | 6.21 | 615 | 653 | 529 | 729 | 502 | 751 | 508 |
| 29 | 741 | 542 | 703 | 619 | 617 | 649 | 529 | 722 | 500 | 750 | 459 | 803 | 521 | 747 | 551 | 705 | 622 | 614 | 6.55 | 528 | 730 | 502 | 752 | 508 |
| 30 | 740 | 543 |  |  | 615 | 650 | 528 | 723 | 500 | 751 | 459 | 803 | 522 | 746 | 552 | 704 | 623 | 612 | 65 | 527 | 731 | 501 | 752 | 507 |
| 31 | 739 | 544 |  |  | 614 | 651 |  |  | 459 | 752 |  |  | 523 | 745 | 553 | 702 |  |  | 657 | 526 |  |  | 752 | 510 |

Add one hour for Daylight Saving Time il and when in use.
Prepared by

> NAUTICAL ALMANAC OFFICE
> UNITED STATES NAVAL OBSERVATORY

WASHINGTON, D.C. 20390
U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON:

WASHINGTON: 1965

## NORMALS, MEANS, AND EXTREMES

SALT LAKE CITY, UTAH
IATTIUDI: $40^{\circ} 47^{\circ} \mathrm{N}$ LONGITUDE: $11^{\circ}$ 57' W ELEVATION: FT. GRND 4221 BARO 4224 TIME ZONE: MOUNTAIN WBAN: 24127

|  | (a) | IAN | 17il3 | MAB | APK | M M Y | JUN | JUL. | $\triangle$ UG | SEP | OCT | NOV | DEC | YEAR |
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| TEMPERATURE *F |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -Daily Maximum |  | 36.4 | 43.6 | 52.2 | 61.3 | 71.9 | B2.8 | 92.2 | $89.4{ }^{\prime}$ | 79.2 | 66.1 | 50.8 | 37.8 | 63.6 |
| -Daily Minimum |  | 19.3 | 24.6 | 31.4 | 37.9 | 45.6' | 55.4 | 63.7 | -61.8 | 51.0 | 40.2 | 30.9 | 21.6 | 40.3 |
| -Monithly |  | 27.9 | 34.1 | 41.8 | 49.7 | 58.8 | 69.1 | 77.9 | 75.6 | 65.2 | 53.2 | 40.8 | 29.7 | 52.0 |
| lixiremes -Record | 66 | 62 | 69 | 78 | 86 | 93 | 104 | 107 | 106 | 100 | 89 | 75 | 67 | 107 |
| - Year |  | 1982 | 1972 | 1960 | 1992 | 1984 | 1979 | 1960 | 1994 | 1979 | 1963 | 1967 | 1969 | JUl. 1960 |
| -Record Lowest | 66 | -22 | -30 | 2 | 14 | 25 | 35 | 40 | 37 | 27 | 16 | -14 | -21 | -30 |
| - Year |  | 1949 | 1933 | 1966 | 1936 | 1965 | 1962 | 1968 | 1965 | 1965 | 1971 | 1955 | 1932 | FT:131933 |
| NORMAL DEGREE DAYS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| lleating (basc $65 \times F$ ) |  | $1150$ | 865 0 | 719 0 | 464 0 | 215 23 | 51 174 | ${ }_{400}^{0}$ | $329$ | 108 | 373 7 | 726 0 | 1094 0 | $1047$ |
| Cooling (basc 65 ${ }^{\text {² }}$ ) |  | 0 | 0 | 0 | 0 | 23 | 174 <br> 80 | $\frac{400}{83}$ | $\frac{329}{82}$ | $\frac{114}{82}$ |  |  |  |  |
| \% OF POSSIBLE SUNSIIINE | 56 | 45 | 54 | 63 | 68 | 73 | 80 | 83 | 82 | 82 | 72 | 53 | 43 | 67 |
| MBAN SKY COVEK(tenths) | 59 | 7.3 | 7.1 | 6.7 | 6.4 | 5.7 | 4.3 | 3.6 | 3.7 | 3.7 | 4.7 | 6.3 | 7.2 | 5.6 |
| MEAN NUMBER OF DAYS: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sunrise to Sunset |  |  |  |  |  |  |  |  |  |  |  | 8.4 | 6.3 | 125.2 |
| -Clear | 66 | 5.6 | 5.2 | 7.0 | 6.7 | 9.1 | 13.8 9.8 | 16.7 9.8 | 15.8 10.7 | 16.5 8.3 | 13.9 7.7 | 8.4 | 6.5 | 125.2 |
| -Partly Cloudy | 66 | 6.5 | 6.9 | 8.2 | 9.4 | 10.2 | 9.8 | 9.8 | 10.7 | 8.3 5.2 | 7.7 9.4 | 7.1 14.5 | 6.5 18.2 | 101.0 139.1 |
| -Cloudy | 66 | 18.9 | 16.2 | 15.8 | 13.9 | 11.7 | 6.3 | 4.5 | 4.6 | 5.2 | 9.4 | 14.5 | 18.2 | 139.1 |
| Precipitation .01 inches or more | 66 | 9.9 | 8.9 | 9.8 | 9.5 | 8.3 | 5.4 | 4.5 | 5.7 | 5.3 | 6.4 | 8.0 | 9.1 | 90.6 |
| Snow,Ice Pellets, Hail |  |  |  |  |  |  |  |  |  | 0.* | 0.3 | 2.2 | 3.8 | 17.8 |
| 1.0 inches or more | 66 | 4.1 | 3.2 | 2.8 | 1.3 | 0.2 5.3 | 0.0 5.3 | 0.0 | 0.0 | 4.2 | 1.9 |  |  |  |
| Thunderstorms | 66 | 0.3 | 0.7 | 1.3 | 2.2 | 5.3 | 5.3 | 6.7 | 7.7 | 4.2 | 1.9 | 0.5 | 0.3 | 36.5 |
| Ileavy Fog Visibility 1/4 mile or less | 66 | 4.5 | 2.3 | 0.3 | 0.1 | 0.* | 0.0 | 0.0 | 0.0 | 0.0 | 0.* | 0.9 | 3.6 | 11.8 |
| Temperature ${ }^{\prime} \mathrm{F}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -Maximum | 35 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 9.1 | 23.3 | 19.3 | 3.8 | 0.0 | 0.0 | 0.0 | 56.1 |
| $32^{\circ}$ and below | 35 | 10.6 | 3.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.* | 0.9 | 8.6 | 24.3 |
| -Minimum |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $32^{*}$ and below | 35 | 27.6 | 22.7 | 15.5 | 6.2 | 0.7 | 0.0 | 0.0 | 0.0 | 0.3 | 4.6 | 18.3 | 27.7 | 123.7 |
| $0^{\wedge}$ and below | 35 | 1.6 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 2.8 |
| AV. STATION PRES. (mb) | 22 | 874.9 | 873.3 | 869.7 | 869.7 | 869.0 | 870.0 | 871.2 | 871.6 | 872.2 | 873.5 | 873.5 | 874.8 | 871.9 |
| REIATIVE HUMIDITY (\%) Hlour OS | 35 | 79 | 78 | 71 | 67 | 65 | 59 | 52 | 54 | 61 | 69 | 75 | 79 | 67 |
| Ilour 11 (Local Time) | 35 | 71 | 64 | 52 | 44 | 39 | 31 | 27 | 30 | 35 | 43 | 58 | 70 | 47 |
| Hour 17 | 35 | 69 | 59 | 47 | 39 | 33 | 26 | 22 | 23 | 29 | 41 | 59 | 71 | 43 |
| Ilour 23 | 35 | 79 | 77 | 68 | 61 | 58 | 49 | 42 | 45 | 54 | 66 | 74 | 79 | 63 |
| PRECIPITATION (ins): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Water Equivalent -Normal |  | 1.11 | 1.23 | 1.91 | 2.12 | 1.80 | 0.93 | 0.81 | 0.86 | 1.28 | 1.44 | 1.29 | 1.40 | 16.18 |
| -Maximum Monthly | 66 | 3.23 | 3.22 | 3.97 | 4.90 | 4.76 | 2.93 | 2.57 | 3.66 | 7.04 | 3.91 | 2.96 | 4.37 | 7.04 |
| - Year |  | 1993 | 1936 | 1983 | 1944 | 1977 | 1947 | 1982 | 1968 | 1982 | 1981 | 1994 | 1983 | SEP 1982 |
| -Minimum Monthly | 66 | 0.09 | 0.12 | 0.10 | 0.45 | T | T | T | T | T | 0.00 | 0.01 | 0.08 | 0.00 |
| -Year |  | 1961 | 1946 | 1956 | 1981 | 1934 | 1994 | 1963 | 1944 | 1951 | 1952 | 1939 | 1976 | OCT 1952 |
| -Maximum in 24 hrs | 66 | 1.36 | 1.05 | 1.83 | 2.41 | 2.03 | 1.88 | 2.35 | 1.96 | 2.30 | 1.76 | 1.13 | 1.82 | 2.41 |
| -Year |  | 1953 | 1958 | 1944 | 1957 | 1942 | 1948 | 1962 | 1932 | 1982 | 1984 | 1954 | 1972 | APR 1957 |
| Snow, lce Pellets, Hail |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -Maximum Monthly | 66 | 50.3. | 27.9 1969 | 41.9 | 26.4 1974 |  |  | T 199 | T 1993 | 4.0 1971 | 20.4 1984 | 33.3 1994 | 35.2 1972 | JAN 1993 |
| - Ycar |  | 1993 10.7 | 1969 11.9 | 1977 15.4 | 1974 16.2 | 1975 6.4 | 1993 | 1991 | 1993 | 1971 4.0 | 1984 18.4 | 1994 11.0 | 1972 18.1 | JAN 1993 18.4 |
| - Maximum in 24 hrs - Year | 66 | 10.7 <br> 1980 | 11.9 <br> 1989 | 1974 <br> 1944 | 16.2 <br> 1974 | 6.4 <br> 1975 | 1993 | 1991 | 1993 | 1971 | 1984 | 1930 | 1972 | OCT 1984 |
| WIND: |  |  |  |  |  |  |  | 9.5 | 9.7 | 9.1 | 8.5 | 8.0 | 7.5 | 8.8 |
| Mean Speed (mph) | 65 | 7.5 | 8.2 | 9.3 | 9.6 | 9.5 | 9.4 | 9.5 | 9.7 | 9.1 | 8.5 | 8.0 | 7.5 | 8.8 |
| Prevailing Direction through 1963 |  | SSE | SI: | SSE | SL: | SE | SSE | SSE | SSE | SL | SE | SSE | SSE | SSE |
| Fastest Mile |  |  |  |  |  |  |  |  | SW | W | NW | NW | S | NW |
| - Direction (!!) | 59 59 | NW 59 | SE | NW 71 | NW 57 | NW 57 | 63 | NW 51 | 58 | 61 | 67 | 63 | 54 | 71 |
| -Speed (mph) | 59 | N9 1980 | 1954 | 71 | 57 1964 | 1953 | 1963 | 1986 | 1946 | 1952 | 1950 | 1937 | 1955 | MAR 1954 |
| - Year <br> Pcak (iust |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Disection (!!) | 11 | N | 5 | NW | NW | SW | SW | NW | SW | NW | NW | SW | 5 | SW |
| -Speed (mph) | 11 | 59 | 54 | 59 | 54 | 69 | 58 | 63 | 67 | 61 | 63 | 54 | 49 | 69 |
| -Date |  | 1988 | 1989 | 1989 | 1984 | 1989 | 1993 | 1994 | 1989 | 1992 | 1985 | 1992 | 1992 | MAY 1989 |

XIII. Table 3a.

CLIMATOGRAPHY OF THE UNITED STATES NO. 84
DAILY NORMALS OF TEMPERATURE, HEATING AND COOLING DEGREE DAYS, AND PRECIPITATION 1961-90

the daily values presenteo in these tables are not simple means of observed values. they are interpolated from THE MUCH LESS VARIABLE MONTHLY NORMALS BY USE OF THE NATURAL SPLINE fUNCTION. IN LEAP YEARS USE THE FEBRUARY 28IH VALUES FOR THE 29IH AND ADJUST THE DEGREE DAY MONTHLY TOTALS ACCORDINGLY. DAILY PRECIPITAIION NORMALS WERE ALSO COMPUTED USING THE NATURAL SPLINE FUNCIION AND DO NOT EXHIBIT THE TYPICAL DAILY RANDOM PATTERNS. HOWEVER. they may be used to compuie normal precipitation over time intervals.


[^0]Table 3c.
CLIMATOGRAPHY OF THE UNITED STATES NO. 84
DAILY NORMALS OF TEMPERATURE, HEATING AND COOLING DEGREE DAYS, AND PRECIPITATION 1961-90


THE DAILY VALUES PRESENTED IN THESE TABLES ARE NOT SIMPLE MEANS OF OBSERVED VALUES THEY ARE INTERPOLATED FROM THE MUCH LESS VARIABLE MONTHLY NORALS BY USE OF IHE NATURAL SSLINE FUNCIION. IN LEAP YEARS USE THE FEBRUARY 28IH VALUES FOR THE 29IH AND ADJUST THE DEGREE DAY MONTHLY TOTALS ACCOROINGLY. DAIILY PRECIPITATION NO HALS WERE THEY MAY BE USED IO COMPUTE NORMAL PRECIPITATION OVER IIME INTERVALS.

Table 3d.
CLIMATOGRAPHY OF THE UNITED STATES NO. 84
DAILY NORMALS OF TEMPERATURE, HEATING AND COOLING DEGREE DAYS, AND PRECIPITATION 1961-90


IHE DAILY VALUES PRESENIED IN THESE TABLES ARE NOI SIMPLE MEANS OF OBSERVED VALUES THEY ARE INTERPOLATED FROM THE MUCH LESS VARIABLE MONTHLY NOAMALS BY USE OF THE NAIURAL SPLINE FUNCIION. IN LEAP YEARS USE THE FEBRUARY 28IH VALUES FOR IHE 29 IH AND AD JUSI THE DEGRE DAY HONHLY IOTAS ACCORINGLY. DAILY PRELIPI IAIIION NORHALS WERE ALSO COMPUIED USING IHE NATURAL SPLINE FUNCIION AND DO NOI EXHIBIT IHE

The following graphs, Figures $4 \mathrm{a}-4 \mathrm{f}$ are smoothed average hourly temperature curves made by using the average hourly temperature that was compiled for a 15 -year.period and then making slight adjustments necessary to incorporate the average synoptic temperature observations ( $5 \mathrm{am}, 11 \mathrm{am}, 5 \mathrm{pm}, 11 \mathrm{pm}$ MST) for the Climatological period 1961-1990.

Note: The normal maximum and minimum temperatures (1961-1990) are also listed on each graph. This is because maximum and minimum temperature readings usually occur between the times of the hourly observations and do not fall on the average hourly temperature curve. This is especially true of the minimum temperature, because of not only the variability in time of occurrence, but also because of the usually short time period in which the minimum temperature occurs. These factors should be remembered when using the following graphs.

JANUARY


FEBRUARY


Figure 4a


Normal Maximum: 61.3
Normal Minimum: 37.9


Figure 4b


Normal Maximum: 82.8
Normal Minimum: 55.4


Figure 4c

July
Normal Maximum: 92.2
Normal Minimum: 63.7


## August

Normal Maximum: 89.4
Normal Minimum: 61.8


Figure 4d

September
Normal Maximum: 79.2
Normal Minimum: 51.0


## October

Normal Maximum: 66.1
Normal Minimum: 40.2


Figure 4 e

November
Normal Maximum: 50.8
Normal Minimum: 30.9


## December

Normal Maximum: 37.8
Normal Minimum: 21.6


Figure 4 f

TABLE 4a
DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
JANUARY


+ Also occurred in earlier years.


## TABLE 4b

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
FEBRUARY


+ Also occurred in earlier years.

TABLE 4c
DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
MARCH


+ Also occurred in earlier years.


## TABLE 4d

 DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997APRIL


+ Also occurred in earlier years.


## TABLE 4e

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997

## MAY

| D A Y | $\begin{aligned} & \text { HIGH } \\ & \text { MAX } \end{aligned}$ | YEAR |  | LOW MAX | YEAR |  | HIGH MIN | YEAR |  | LOW MIN | YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 86.9 | 1981 |  | 45.2 | 1954 |  | 56.2 | 1943 |  | 26.9 | 1946 |
| 2 | 91.3 | 1947 |  | 38.7 | 1964 |  | 60.0 | 1985 |  | 28.1 | 1967 |
| 3 | 91.1 | 1947 |  | 43.5 | 1950 |  | 64.0 | 1985 |  | 27.6 | 1964 |
| 4 | 87.7 | 1947 |  | 48.8 | 1950 |  | 58.7 | 1962 |  | 31.0 | 1964 |
| 5 | 87.9 | 1947 |  | 44.5 | 1978 |  | 59.0 | 1979 |  | 28.0 | 1961 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 90.7 | 1947 |  | 45.5 | 1965 |  | 56.5 | 1980 |  | 25.4 | 1965 |
| 7 | 89.0 | 1947+ |  | 45.4 | 1975 |  | 61.0 | 1947 |  | 27.2 | 1965 |
| 8 | 87.2 | 1962+ |  | 45.6 | 1930 |  | 59.1 | 1989+ |  | 30.2 | 1931 |
| 9 | 86.5 | 1954 |  | 46.0 | 1933 |  | 62.4 | 1962 |  | 28.2 | 1930 |
| 10 | 91.6 | 1961 |  | 47.4 | 1983 |  | 58.9 | 1954 |  | 31.0 | 1948 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 91.2 | 1960 |  | 44.2 | 1983 |  | 54.7 | 1994+ |  | 32.0 | 1933 |
| 12 | 91.9 | 1960 |  | 45.2 | 1942 |  | 62.6 | 1960 |  | 32.4 | 1967 |
| 13 | 91.7 | 1959 |  | 50.1 | 1942 |  | 61.6 | 1993 |  | 30.0 | 1967 |
| 14 | 89.1 | 1936 |  | 52.6 | 1968 |  | 66.0 | 1984 |  | 33.1 | 1967 |
| 15 | 88.0 | 1934 |  | 50.0 | 1955 |  | 62.3 | 1996 |  | 32.4 | 1955 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 89.7 | 1948 |  | 47.6 | 1977 |  | 64.4 | 1987 |  | 30.0 | 1955 |
| 17 | 89.2 | 1948 |  | 48.0 | 1977 |  | 60.0 | 1948 |  | 32.7 | 1943 |
| 18 | 92.3 | 1932 |  | 44.6 | 1977 |  | 61.5 | 1992 |  | 33.0 | 1971+ |
| 19 | 92.9 | 1958 |  | 53.2 | 1945 |  | 59.4 | 1993+ |  | 31.0 | 1960 |
| 20 | 92.4 | 1958 |  | 43.4 | 1975 |  | 62.9 | 1954 |  | 33.3 | 1959 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | 86.2 | 1958 |  | 50.8 | 1962 |  | 62.0 | 1958 |  | 34.5 | 1959 |
| 22 | 89.0 | 1989 |  | 53.8 | 1986 |  | 59.3 | 1963 |  | 33.3 | 1960 |
| 23 | 91.0 | 1967 |  | 53.0 | 1995 |  | 62.1 | 1934 |  | 30.2 | 1966 |
| 24 | 90.0 | 1988 |  | 55.5 | 1939 |  | 61.8 | 1973+ |  | 34.8 | 1930 |
| 25 | 91.5 | 1961 |  | 54.8 | 1980 |  | 63.0 | 1993 |  | 31.6 | 1975 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | 92.0 | 1958 |  | 47.9 | 1929 |  | 65.7 | 1988 |  | 34.0 | 1975+ |
| 27 | 92.7 | 1951 |  | 56.7 | 1954 |  | 67.0 | 1985+ |  | 32.8 | 1929 |
| 28 | 92.1 | 1958 |  | 55.0 | 1935 |  | 63.4 | $1993+$ |  | 32.4 | 1954 |
| 29 | 90.9 | 1939 |  | 55.2 | 1964 |  | 62.4 | 1943 |  | 37.1 | 1946 |
| 30 | 92.6 | 1984 |  | 52.0 | 1937 |  | 62.3 | 1984 |  | 34.0 | 1979 |
| 31 | 94.8 | 1997 |  | 54.1 | 1955 |  | 61.8 | 1993 |  | 35.9 | 1978 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| mnth | 94.8 | 1997/31 |  | 38.7 | 1964/2 |  | 67.0 | 1985/27 |  | 25.4 | 1965/6 |

+ Also occurred in earlier years.


## TABLE 4f

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997

## JUNE

| D A Y | $\begin{aligned} & \text { HIGH } \\ & \text { MAX } \end{aligned}$ | YEAR |  | $\begin{aligned} & \text { LOW } \\ & \text { MAX } \end{aligned}$ | YEAR |  | HIGH <br> MIN | YEAR |  | LOW MIN | YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 91.8 | 1977 |  | 50.8 | 1955 |  | 59.9 | 1940 |  | 38.4 | 1969 |
| 2 | 89.2 | 1968 |  | 51.9 | 1943 |  | 61.7 | 1986 |  | 34.8 | 1954 |
| 3 | 93.7 | 1994 |  | 55.6 | 1955 |  | 63.3 | 1968 |  | 34.9 | 1929 |
| 4 | 96.3 | 1988 |  | 52.3 | 1943 |  | 66.2 | 1988 |  | 39.4 | 1962 |
| 5 | 93.3 | 1946 |  | 60.0 | 1945 |  | 67.7 | 1987 |  | 35.3 | 1937 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 94.7 | 1959 |  | 51.8 | 1932 |  | 67.0 | 1950 |  | 36.9 | 1954 |
| 7 | 100.2 | 1985 |  | 52.2 | 1993 |  | 64.2 | 1985 |  | 34.8 | 1962+ |
| 8 | 98.0 | 1996 |  | 55.9 | 1941 |  | 65.6 | 1996 |  | 38.5 | 1979 |
| 9 | 101.0 | 1973 |  | 56.8 | 1941 |  | 65.0 | 1956 |  | 36.0 | 1950 |
| 10 | 95.0 | $1961+$ |  | 58.6 | 1970 |  | 65.4 | 1946 |  | 40.2 | 1947 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 96.1 | 1961 |  | 48.7 | 1947 |  | 66.0 | 1992 |  | 40.0 | 1929 |
| 12 | 97.5 | 1979 |  | 62.8 | 1928 |  | 67.5 | 1994 |  | 40.9 | 1970 |
| 13 | 98.1 | 1979 |  | 62.0 | 1957 |  | 70.0 | 1959 |  | 39.7 | 1993 |
| 14 | 100.5 | 1974 |  | 60.1 | 1945 |  | 68.8 | 1959 |  | 39.3 | 1981 |
| 15 | 101.5 | 1974 |  | 61.3 | 1957 |  | 70.8 | 1974 |  | 38.8 | 1945 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 99.7 | 1940 |  | 62.3 | 1957 |  | 71.9 | 1974 |  | 39.8 | 1939 |
| 17 | 103.3 | 1940 |  | 50.0 | 1939 |  | 72.0 | 1933 |  | 37.4 | 1939 |
| 18 | 101.8 | 1940 |  | 53.5 | 1975 |  | 70.3 | 1986 |  | 36.8 | 1928 |
| 19 | 101.0 | 1940 |  | 61.5 | 1975 |  | 71.9 | 1994 |  | 40.3 | 1938 |
| 20 | 101.1 | 1936 |  | 66.2 | 1975 |  | 72.7 | 1940 |  | 41.0 | 1929 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | 103.5 | 1961 |  | 58.0 | 1948 |  | 67.9 | 1988 |  | 37.5 | 1960 |
| 22 | 101.0 | 1961 |  | 59.8 | 1948 |  | 73.6 | 1937 |  | 42.0 | 1960 |
| 23 | 100.2 | 1990 |  | 67.3 | 1993 |  | 70.9 | 1990 |  | 44.4 | 1964 |
| 24 | 102.0 | 1988 |  | 63.8 | 1952 |  | 71.8 | 1959 |  | 43.3 | 1993 |
| 25 | 101.7 | 1994 |  | 62.4 | 1969 |  | 75.3 | 1988 |  | 39.8 | 1953+ |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | 102.5 | 1970 |  | 62.9 | 1942 |  | 75.4 | 1981 |  | 42.1 | 1978 |
| 27 | 101.9 | 1958 |  | 60.6 | 1942 |  | 75.3 | 1981 |  | 43.4 | 1942 |
| 28 | 102.4 | 1961 |  | 65.0 | 1959 |  | 74.3 | 1986 |  | 40.3 | 1945 |
| 29 | 103.5 | 1979 |  | 63.9 | 1959 |  | 72.0 | 1935 |  | 42.2 | 1968 |
| 30 | 103.4 | 1990 |  | 72.7 | 1992 |  | 74.8 | 1990 |  | 39.9 | 1968 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| mnth | 103.5 | 1979/29 |  | 48.7 | 1947/11 |  | 75.4 | 1981/26 |  | 34.8 | 1962/7. |

+ Also occurred in earlier years.


## TABLE 4g

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997


+ Also occurred in earlier years.


## TABLE 4h

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
AUGUST

| D A Y | $\begin{aligned} & \text { HIGH } \\ & \text { MAX } \end{aligned}$ | YEAR |  | $\begin{aligned} & \text { LOW } \\ & \text { MAX } \end{aligned}$ | YEAR |  | HIGH <br> MIN | YEAR |  | LOW MIN | YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 101.6 | 1979 |  | 78.5 | 1965 |  | 74.4 | 1989 |  | 49.1 | 1932 |
| 2 | 102.9 | 1992 |  | 78.7 | 1928 |  | 72.2 | 1981+ |  | 45.0 | 1928 |
| 3 | 101.9 | 1994 |  | 77.4 | 1951 |  | 73.1 | 1992 |  | 47.0 | 1928 |
| 4 | 106.1 | 1994 |  | 75.9 | 1951 |  | 70.4 | 1994 |  | 47.7 | 1944 |
| 5 | 105.2 | 1994 |  | 78.3 | 1962 |  | 73.9 | 1994 |  | 50.4 | 1928 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 101.4 | 1995 |  | 74.3 | 1939 |  | 75.1 | 1975 |  | 48.3 | 1950 |
| 7 | 100.4 | 1995 |  | 79.2 | 1939 |  | 76.3 | 1995 |  | 49.0 | 1928 |
| 8 | 102.6 | 1990 |  | 77.3 | 1995 |  | 73.4 | 1983+ |  | 48.8 | 1976 |
| 9 | 103.1 | 1940 |  | 77.4 | 1985+ |  | 72.7 | 1990 |  | 50.6 | 1931 |
| 10 | 101.0 | 1935 |  | 75.8 | 1947 |  | 72.1 | 1983 |  | 50.2 | 1939 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 11. | 102.0 | 1972 |  | 72.1 | 1985 |  | 73.7 | 1991 |  | 47.8 | 1932 |
| 12 | 101.9 | 1940 |  | 74.1. | 1930 |  | 71.5 | 1980 |  | 48.9 | 1935 |
| 13 | 102.1 | 1937 |  | 74.0 | 1930 |  | 70.4 | 1994 |  | 50.0 | 1969 |
| 14 | 99.9 | 1960 |  | 68.4 | 1978 |  | 71.5 | 1992 |  | 47.1 | 1938 |
| 15 | 101.1 | 1962 |  | 68.4 | 1968 |  | 72.2 | 1943 |  | 49.0 | 1938 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 100.2 | 1994 |  | 72.0 | 1960 |  | 73.4 | 1995 |  | 47.5 | 1976 |
| 17 | 100.0 | 1934 |  | 69.0 | 1978 |  | 73.2 | 1986 |  | 47.9 | 1968 |
| 18 | 98.7 | 1932 |  | 69.6 | 1968 |  | 72.0 | 1934 |  | 44.9 | 1954 |
| 19 | 99.2 | 1961 |  | 65.7 | 1980 |  | 71.8 | 1932 |  | 47.0 | 1978 |
| 20 | 102.8 | 1960 |  | 71.4 | 1964 |  | 73.6 | 1961 |  | 40.0 | 1928 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | 102.3 | 1960 |  | 70.0 | 1968+ |  | 74.3 | 1960 |  | 43.0 | 1964 |
| 22 | 98.9 | 1991 |  | 59.7 | 1968 |  | 72.7 | 1937 |  | 45.0 | 1933 |
| 23 | 98.7 | 1967 |  | 69.6 | 1968 |  | 71.4 | 1997 |  | 44.0 | 1933 |
| 24 | 98.9 | 1967 |  | 63.4 | 1989 |  | 70.0 | 1955 |  | 39.7 | 1928 |
| 25 | 99.6 | 1985 |  | 71.0 | 1933 |  | 69.6 | 1981 |  | 43.7 | 1928 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | 100.5 | 1985 |  | 69.6 | 1977 |  | 73.9 | 1997 |  | 41.8 | 1992 |
| 27 | 98.7 | 1937 |  | 69.0 | 1977 |  | 71.1 | 1996 |  | 42.0 | 1964 |
| 28 | 96.6 | 1961+ |  | 74.6 | 1977 |  | 71.0 | 1997 |  | 42.2 | 1964 |
| 29 | 99.4 | 1948 |  | 68.2 | 1964 |  | 68.4 | 1981 |  | 36.8 | 1964 |
| 30 | 100.0 | 1954 |  | 61.2 | 1932 |  | 68.3 | 1983 |  | 38.3 | 1964 |
| 31 | 97.5 | 1950 |  | 69.3 | 1932 |  | 67.4 | 1997 |  | 36.6 | 1965 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| mnth | 106.1 | 1994/4 |  | 59.7 | 1968/22 |  | 76.3 | 1995/7 |  | 36.6 | 1965/31 |

+ Also occurred in earlier years.


## TABLE 4i

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
SEPTEMBER


+ Also occurred in earlier years.


## TABLE 4j

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
OCTOBER


[^1]TABLE 4k
DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
NOVEMBER

| D A Y | HIGH <br> MAX | YEAR |  | LOW MAX | YEAR |  | HIGH <br> MIN | YEAR |  | LOW MIN | YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 71.8 | 1988+ |  | 36.9 | 1971 |  | 51.4 | 1987 |  | 15.8 | 1971+ |
| 2 | 72.7 | 1965 |  | 33.4 | 1936 |  | 50.1 | 1988 |  | 13.8 | 1956 |
| 3 | 70.7 | 1965 |  | 30.0 | 1936 |  | 48.5 | 1988 |  | 5.5 | 1936 |
| 4 | 70.2 | 1983 |  | 33.0 | 1935 |  | 54.4 | 1977 |  | 15.0 | 1936 |
| 5 | 71.2 | 1945 |  | 37.0 | 1935 |  | 47.4 | 1945 |  | 18.0 | 1935 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 74.2 | 1931 |  | 32.1 | 1947 |  | 52.4 | 1966 |  | 15.6 | 1947 |
| 7 | 73.8 | 1931 |  | 35.5 | 1945 |  | 47.4 | 1980 |  | 19.0 | 1961 |
| 8 | 69.5 | 1973 |  | 34.0 | 1945 |  | 43.2 | 1974 |  | 16.7 | 1948 |
| 9 | 73.7 | 1958 |  | 31.6 | 1950 |  | 43.0 | 1949 |  | 16.9 | 1948 |
| 10 | 68.8 | 1973 |  | 34.3 | 1978 |  | 45.0 | 1944 |  | 13.4 | 1950 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 72.4 | 1954 |  | 35.2 | 1938 |  | 47.0 | 1954 |  | 17.0 | 1935 |
| 12 | 74.7 | 1967 |  | 31.2 | 1938 |  | 47.7 | 1953 |  | 14.8 | 1929 |
| 13 | 70.0 | 1953 |  | 34.0 | 1964 |  | 50.2 | 1981 |  | 14.2 | 1959 |
| 14 | 70.8 | 1967 |  | 33.0 | 1964 |  | 51.2 | 1953 |  | 3.2 | 1955 |
| 15 | 70.0 | 1941 |  | 14.8 | 1955 |  | 45.9 | 1966 |  | -10.0 | 1955 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 67.5 | 1981 |  | 16.0 | 1955 |  | 49.1 | 1941 |  | -13.6 | 1955 |
| 17 | 67.8 | 1981 |  | 27.0 | 1958 |  | 46.4 | 1950 |  | 9.6 | 1958 |
| 18 | 65.9 | 1995 |  | 29.9 | 1958 |  | 47.0 | 1942 |  | 5.8 | 1958 |
| 19 | 67.9 | 1996 |  | 27.1 | 1985 |  | 53.7 | 1996 |  | 3.0 | 1930 |
| 20 | 64.6 | 1966 |  | 25.5 | 1977 |  | 44.2 | 1966 |  | 2.0 | 1930 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | 65.2 | 1996 |  | 24.9 | 1931 |  | 45.0 | 1974 |  | 5.2 | 1931 |
| 22 | 63.0 | 1933 |  | 26.8 | 1931 |  | 41.0 | 1981 |  | 3.0 | 1930 |
| 23 | 60.8 | 1988 |  | 25.1 | 1931 |  | 43.1 | 1965 |  | 5.4 | 1940 |
| 24 | 65.4 | 1995 |  | 22.4 | 1931 |  | 46.9 | 1960 |  | 0.0 | 1931 |
| 25 | 69.4 | 1995 |  | 26.8 | 1992 |  | 46.0 | 1960 |  | 0.8 | 1931 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | 67.5 | 1949 |  | 26.8 | 1952 |  | 45.8 | 1960 |  | 2.1 | 1952 |
| 27 | 67.2 | 1949 |  | 25.0 | 1976 |  | 39.3 | 1955 |  | 6.0 | 1952 |
| 28 | 65.7 | 1932 |  | 26.8 | 1930 |  | 39.0 | 1970 |  | 7.0 | 1976 |
| 29 | 63.3 | 1932 |  | 27.8 | 1975 |  | 41.0 | 1945 |  | 5.2 | 1931 |
| 30 | 68.1 | 1995 |  | 25.8 | 1930 |  | 42.5 | 1995 |  | 6.1 | 1931 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| mnth | 74.7 | 1967/12 |  | 14.8 | 1955/15 |  | 54.4 | 1977/4 |  | -13.6 | 1955/16 |

+ Also occurred in earlier years.


## TABLE 41

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES, 1928-1997
DECEMBER

| D A Y | HIGH MAX | YEAR |  | LOW MAX | YEAR |  | HIGH <br> MIN | YEAR |  | LOW <br> MIN | YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 68.5 | 1995 |  | 23.8 | 1930 |  | 39.0 | 1947 |  | 6.3 | 1991+ |
| 2 | 60.8 | 1939 |  | 23.5 | 1930 |  | 40.4 | 1977+ |  | 6.0 | 1934 |
| 3 | 59.0 | 1939 |  | 27.3 | 1963 |  | 49.0 | 1980 |  | 4.9 | 1931 |
| 4 | 58.4 | 1980 |  | 25.0 | 1992 |  | 47.0 | 1946 |  | 2.9 | 1992 |
| 5 | 59.9 | 1946 |  | 16.9 | 1972 |  | 42.2 | 1946 |  | -2.8 | 1972 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | 57.7 | 1987 |  | 23.4 | 1978 |  | 41.0 | 1946 |  | 8.5 | 1931 |
| 7 | 59.6 | 1939 |  | 19.0 | 1978 |  | 38.0 | 1983 |  | 0.8 | 1951 |
| 8 | 62.2 | 1939 |  | 18.2 | 1978 |  | 40.7 | 1950 |  | -3.4 | 1956 |
| 9 | 62.2 | 1939 |  | 12.7 | 1972 |  | 48.3 | 1939 |  | -11.0 | 1972 |
| 10 | 66.1 | 1939 |  | 7.8 | 1972 |  | 51.0 | 1929 |  | -12.8 | 1972 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | 61.5 | 1993 |  | 11.5 | 1972 |  | 45.0 | 1929 |  | -12.0 | 1932 |
| 12 | 61.0 | 1995 |  | 7.9 | 1932 |  | 48.3 | 1929 |  | -20.0 | 1932 |
| 13 | 59.6 | 1929 |  | 10.9 | 1932 |  | 45.0 | 1929 |  | -21.4 | 1932 |
| 14 | 63.5 | 1929 |  | 15.0 | 1932 |  | 46.3 | 1977 |  | -19.0 | 1932 |
| 15 | 58.8 | 1946 |  | 11.1 | 1972 |  | 39.4 | 1946 |  | -14.7 | 1972 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 57.8 | 1939 |  | 18.2 | 1932 |  | 40.9 | 1957 |  | -13.8 | 1932 |
| 17 | 58.0 | 1939 |  | 18.7 | 1932 |  | 37.0 | 1939 |  | -4.2 | 1931 |
| 18 | 52.7 | 1960 |  | 23.4 | 1964 |  | 35.7 | 1955 |  | 1.0 | 1932 |
| 19 | 53.8 | 1955 |  | 24.8 | 1992 |  | 46.0 | 1955 |  | -1.0 | 1931 |
| 20 | 60.6 | 1981 |  | 22.2 | 1949 |  | 40.4 | 1941 |  | -6.6 | 1990 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | 66.5 | 1969 |  | 11.4 | 1990 |  | 44.2 | 1964 |  | -9.4 | 1990 |
| 22 | 57.4 | 1964 |  | 2.0 | 1990 |  | 49.1 | 1955 |  | -9.8 | 1990 |
| 23 | 58.7 | 1933 |  | 9.1 | 1990 |  | 51.9 | 1955 |  | -10.8 | 1990 |
| 24 | 57.0 | 1955 |  | 11.4 | 1990 |  | 41.0 | 1971 |  | -6.7 | 1990 |
| 25 | 59.2 | 1955 |  | 18.1 | 1990 |  | 46.0 | 1955 |  | -6.7 | 1930 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | 60.0 | 1933 |  | 19.0 | 1970 |  | 43.0 | 1955 |  | -6.2 | 1930 |
| 27 | 56.8 | 1933 |  | 17.8 | 1988 |  | 41.0 | 1934 |  | -4.3 | 1930 |
| 28 | 57.2 | 1933 |  | 24.2 | 1939 |  | 40.3 | 1945 |  | -9.0 | 1932 |
| 29 | 57.6 | 1933 |  | 20.2 | 1988 |  | 43.2 | 1996 |  | -8.0 | 1932 |
| 30 | 55.6 | 1996 |  | 13.2 | 1990 |  | 42.3 | 1933 |  | -8.6 | 1990 |
| 31 | 61.7 | 1996 |  | 19.8 | 1978 |  | 46.9 | 1996 |  | -7.3 | 1990 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| mmu | 68.5 | 1995/1 |  | 2.0 | 1990/22 |  | 51.9 | 1955/23 |  | -21.4 | 1932/13 |

+ Also occurred in earlier years.

TABLE 5a
NORMAL MONTHLY MAXIMUM TEMPERATURE, PLUS HIGHEST AND LOWEST DAILY EXTREMES FOR EACH MONTH WITH DAY AND YEAR OF OCCURRENCE

1928-1997

| Month <br> Normal Monthly <br> Maximum | Highest Daily Maximum |  |  | Lowest Daily Maximum |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January | 36.4 | 61.5 | 26 | 1982 | 3.6 | 12 | 1963 |
| February | 43.6 | 68.5 | 28 | 1972 | 6.0 | 7 | 1933 |
| March | 52.2 | 77.9 | 24 | 1956 | 26.2 | 4 | 1933 |
| April | 61.3 | 86.0 | 29 | 1992 | 34.9 | 1 | 1936 |
| May | 71.9 | 92.9 | 19 | 1958 | 38.7 | 2 | 1964 |
| June | 82.8 | 103.5 | 29 | $1979+$ | 48.7 | 11 | 1947 |
| July | 92.2 | 106.6 | 26 | 1960 | 62.1 | 23 | 1993 |
| August | 89.4 | 106.1 | 4 | 1994 | 59.7 | 22 | 1968 |
| September | 79.2 | 100.0 | 8 | 1979 | 41.0 | 24 | 1934 |
| October | 66.1 | 88.6 | 3 | 1963 | 29.5 | 29 | 1971 |
| November | 50.8 | 74.7 | 12 | 1967 | 14.8 | 15 | 1955 |
| December | 37.8 | 68.5 | 1 | 1995 | 2.0 | 22 | 1990 |
| Annual | 63.6 | 106.6 | July 26 | 1960 | 2.0 | Dec 22 | 1990 |

+ Also occurred on June 21, 1961.


## TABLE 5b

NORMAL MONTHLY MINIMUM TEMPERATURE, PLUS HIGHEST AND LOWEST DAILY EXTREMES FOR EACH MONTH WITH DAY AND YEAR OF OCCURRENCE

1928-1997

| Month | Normal Monthly <br> Minimum | Lowest Daily Minimum |  |  | Highest Daily Minimum |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January | 19.3 | -21.7 | 25 | 1949 | 47.0 | 13 | 1980 |
| February | 24.6 | -30.0 | 9 | 1933 | 51.3 | 18 | 1986 |
| March | 31.4 | 1.8 | 4 | 1966 | 56.0 | 29 | 1943 |
| April | 37.9 | 14.2 | 2 | 1936 | 64.1 | 21 | 1989 |
| May | 45.6 | 25.4 | 6 | 1965 | 68.7 | 23 | 1934 |
| June | 55.4 | 34.8 | 7 | $1962+$ | 75.4 | 26 | 1981 |
| July | 63.7 | 40.0 | 1 | 1968 | 79.0 | 10 | 1956 |
| August | 61.8 | 36.6 | 31 | 1965 | 76.3 | 7 | 1995 |
| September | 51.0 | 27.0 | 18 | 1965 | 73.1 | 5 | 1978 |
| October | 40.2 | 16.1 | 30 | 1971 | 65.9 | 30 | 1950 |
| November | 30.9 | -13.6 | 16 | 1955 | 54.4 | 4 | 1977 |
| December | 21.6 | -21.4 | 13 | 1932 | 51.9 | 23 | 1955 |
| Annual | 40.3 | -30.0 | Feb 9 | 1933 | 79.0 | July 10 | 1956 |

Climatological normals based on (1961-1990) period.

+ Also occurred in earlier years.

TABLE 6a
NORMAL MONTHLY MAXIMUM TEMPERATURE, PLUS HIGHEST AND LOWEST MONTHLY averages with year of occurrence

1928-1997

| Month | Normal <br> Monthly <br> Maximum | Highest <br> Average <br> Maximum | Year | Lowest <br> Average <br> Maximum | Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| January | 36. | 48.1 | 1953 | 21.7 | 1949 |
| February | 43.6 | 54.1 | 1995 | 29.1 | 1933 |
| March | 52.2 | 62.0 | 1934 | 40.5 | 1952 |
| April | 61.3 | 70.7 | 1934 | 53.4 | 1975 |
| May | 71.9 | 82.4 | 1934 | 63.8 | 1933 |
| June | 82.8 | 92.2 | 1961 | 73.0 | 1945 |
| July | 79.2 | 98.2 | 1960 | 83.6 | 1993 |
| August | 66.1 | 87.5 | 1967 | 82.3 | 1968 |
| September | 50.8 | 58.3 | 1979 | 70.8 | 1965 |
| October | 37.8 | 48.1 | 1988 | 56.4 | 1946 |
| November | 63.6 | 98.2 | July 1960 | 21.7 | 1994 |
| December |  |  | 28.1 | 1930 |  |
| Annual |  |  |  | Jan | 1949 |

TABLE 6b
NORMAL MONTHLY MINIMUM TEMPERATURE, PLUS HIGHEST AND LOWEST MONTHLY AVERAGES WITH YEAR OF OCCURRENCE

1928-1997

| Month | Normal <br> Monthly <br> Minimum | Highest <br> Average <br> Minimum | Year | Lowest <br> Average <br> Minimum | Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| January | 19.3 | 30.9 | 1953 | 1.4 | 1949 |
| February | 24.6 | 33.6 | 1986 | 3.4 | 1933 |
| March | 31.4 | 38.9 | 1992 | 27.2 | 1964 |
| April | 37.9 | 44.0 | 1992 | 32.5 | $1970+$ |
| May | 45.6 | 52.5 | 1992 | 40.6 | 1930 |
| June | 55.4 | 61.3 | 1988 | 47.5 | 1945 |
| July | 61.8 | 67.2 | 1985 | 56.1 | 1993 |
| August | 51.0 | 58.8 | 1994 | 53.2 | 1928 |
| September | 40.2 | 45.6 | 1990 | 43.8 | 1964 |
| October | 30.9 | 35.9 | 1953 | 33.9 | 1932 |
| November | 21.6 | 30.8 | 1950 | 19.3 | 1930 |
| December | 40.3 | 67.2 | July 1985 | 1.4 | 1932 |
| Annual |  |  | Jan 1949 |  |  |

Climatological Normals based on (1961-1990) period.

+ Also occurred in earlier years.

TABLE 7
NORMAL, HIGHEST AND LOWEST MONTHLY MEAN TEMPERATURE
1928-1997

|  | max | year | MEN | yenr |  | max | year | MIN | year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JANUARY <br> Normal Monthly Mean $27.9$ | 39.5 | 1953 | 11.6 | 1949 | JULY <br> Normal Monthly Mean $77.9$ | 81.2 | 1960 | 69.9 | 1993 |
|  | 36.8 | 1994 | 13.2 | 1937 |  | 81.1 | 1989 | 73.8 | 1938 |
|  | 36.3 | 1978 | 18.8 | $1932+$ |  | 80.9 | 1988 | 74.2 | 1986 |
|  | 35.7 | 1938 | 19.2 | 1944 |  | 80.7 | 1994+ | 74.3 | 1950+ |
|  | 35.5 | 1956 | 19.5 | 1963 |  | 80.5 | 1996 | 74.6 | 1952 |
| FEBRUARY <br> Normal Monthly Mean $34.1$ | 42.3 | 1995 | 16.2 | 1933 | AUGUST <br> Normal Monthly Mean $75.6$ | 80.8 | 1994 | 69.4 | 1968 |
|  | 42.2 | 1934 | 22.6 | 1939 |  | 78.7 | 1997 | 70.6 | 1928 |
|  | 41.7 | 1958 | 22.8 | 1949 |  | 78.6 | 1967 | 70.9 | 1965 |
|  | 41.4 | 1986 | 24.0 | $1955+$ |  | 78.4 | $1991+$ | 71.9 | 1964 |
|  | 40.4 | 1976 | 25.3 | 1989 |  | 78.0 | 1981 | 72.3 | 1976 |
| MARCH <br> Normal Monthly Mean <br> 41.8 | 49.3 | 1992 | 32.0 | 1964 | SEPTEMBER <br> Normal Monthly Mean $65.2$ | 72.0 | 1990 | 57.5 | 1965 |
|  | 49.2 | 1934 | 33.3 | 1952 |  | 71.4 | 1979 | 59.0 | 1970 |
|  | 48.0 | 1978 | 35.1 | 1962 |  | 70.5 | 1994 | 59.7 | 1941 |
|  | 47.7 | 1986 | 35.6 | 1948 |  | 69.7 | 1969 | 59.8 | 1971 |
|  | 46.9 | 1972 | 35.8 | 1942 |  | 68.7 | 1938 | 60.0 | 1961 |
| APRIL <br> Normal Monthly Mean <br> 49.7 | 57.1 | 1992 | 44.2 | 1970 | OCTOBER <br> Normal Monthly Mean $53.2$ | 60.0 | 1988 | 46.6 | 1946 |
|  | 56.6 | 1934 | 44.3 | $1975+$ |  | 57.9 | 1950 | 47.1 | 1970 |
|  | 56.0 | 1930 | 44.4 | 1929 |  | 57.8 | 1963 | 47.5 | 1971 |
|  | 55.9 | 1987 | 44.8 | 1945 |  | 57.5 | 1952 | 47.7 | 1969 |
|  | 55.7 | 1985 | 45.5 | 1933 |  | 56.7 | 1979 | 48.1 | 1932 |
| MAY <br> Normal Monthly Mean <br> 58.8 | 66.7 | 1934 | 52.2 | 1933 | NOVEMBER <br> Normal Monthly Mean $40.8$ | 46.1 | $1995+$ | 31.8 | 1930 |
|  | 65.6 | 1992 | 52.9 | 1953 |  | 44.3 | 1981+ | 32.4 | 1938 |
|  | 65.1 | 1958 | 53.2 | 1942 |  | 44.0 | 1954 | 32.6 | 1994 |
|  | 64.0 | 1969 | 54.3 | $1975+$ |  | 43.6 | 1937 | 33.0 | 1931 |
|  | 63.9 | 1985 | 54.7 | 1965 |  | 43.4 | 1974 | 34.1 | 1992 |
| JUNE <br> Normal Monthly Mean $69.1$ | 75.7 | 1988 | 60.2 | 1945 | DECEMBER <br> Normal Monthly Mean $29.7$ | 37.9 | 1977 | 18.0 | 1932 |
|  | 74.7 | 1961 | 63.0 | 1944 |  | 37.8 | 1933 | 18.8 | 1930 |
|  | 74.3 | 1994 | 63.2 | $1964+$ |  | 37.1 | 1996+ | 21.0 | 1990 |
|  | 73.5 | 1986 | 63.3 | 1963 |  | 36.4 | 1981 | 22.5 | 1931 |
|  | 73.4 | 1996+ | 63.6 | 1947 |  | 36.3 | $1939+$ | 22.7 | 1972 |

+ Also occurred in earlier years.

TABLE 7a
ANNUAL HIGHEST AND LOWEST AVERAGE TEMPERATURES 1928-1997

| Highest <br> Annual <br> Average | Year | Normal <br> Annual <br> Mean <br> Temperature $52.0$ |  | Year |
| :---: | :---: | :---: | :---: | :---: |
| 55.2 | 1934 |  | 48.2 | 1932 |
| 54.6 | 1994 |  | 48.3 | 1964 |
| 54.3 | 1981 |  | 49.0 | 1929 |
| 54.2 | 1996 |  | 49.4 | 1955,44,30 |
| 53.8 | 1995,40 |  | 49.6 | 1942 |
| 53.6 | 1992,58 |  | 49.7 | 1931 |

Climatological normals based on (1961-1990) period.

TABLE 7b
FALL HIGHEST AND LOWEST AVERAGE TEMPERATURES (SEPTEMBER-NOVEMBER)

1928-1997

| Highest Fall Average | Year | Normal <br> Fall <br> Mean <br> Temperature <br> 53.1 | Lowest Fall Average | Year |
| :---: | :---: | :---: | :---: | :---: |
| 56.1 | 1953 |  | 48.0 | 1930 |
| 55.8 | 1990 |  | 48.3 | 1971 |
| 55.6 | 1983 |  | 48.4 | 1961 |
| 55.1 | 1937 |  | 49.5 | 1946 |
| 55.0 | 1995+ |  | 49.6 | 1970+ |
| 54.9 | 1979+ |  | 50.1 | 1936 |
| 54.6 | 1933 |  | 50.2 | 1959 |

TABLE 7c
WINTER HIGHEST AND LOWEST AVERAGE TEMPERATURES (DECEMBER-FEBRUARY)

1928-1997

| Highest Winter Average | Year | Normal <br> Winter <br> Mean <br> Temperature $30.5$ | Lowest Winter <br> Average | Year |
| :---: | :---: | :---: | :---: | :---: |
| 38.0 | 1977-78 |  | 19.5 | 1932-33 |
| 37.9 | 1933-34 |  | 19.9 | 1948-49 |
| 36.3 | 1994-95+ |  | 23.5 | 1930-31 |
| 36.2 | 1952-53 |  | 23.9 | 1931-32+ |
| 35.8 | 1969-70 |  | 24.0 | 1963-64 |
| 35.4 | 1958-59 |  | 24.9 | 1972-73 |
| 35.3 | 1957-58 |  | 25.1 | 1954-55 |

Climatological normals based on (1961-1990) period.

+ Also occurred in earlier years.

TABLE 7d
SPRING HIGHEST AND LOWEST AVERAGE TEMPERATURES
(MARCH-MAY)
1928-1997

| Highest Spring <br> Average | Year | Normal Spring <br> Mean <br> Temperature $50.2$ |  | Year |
| :---: | :---: | :---: | :---: | :---: |
| 57.5 | 1934 |  | 44.5 | 1964 |
| 57.3 | 1992 |  | 45.5 | 1933 |
| 53.8 | 1987 |  | 46.4 | 1955+ |
| 53.6 | 1994 |  | 46.5 | 1942 |
| 53.5 | 1989 |  | 47.2 | 1944 |
| 53.5 | 1985 |  | 47.4 | 1945 |
| 53.3 | 1940 |  | 47.5 | 1965 |

TABLE 7e
SUMMER HIGHEST AND LOWEST AVERAGE TEMPERATURES (JUNE-AUGUST)

1928-1997

| Highest Summer Average | Year | Normal <br> Summer Mean <br> Temperature <br> 74.3 | Lowest <br> Summer <br> Average | Year |
| :---: | :---: | :---: | :---: | :---: |
| 1994 | 78.6 |  | 1993 | 68.7 |
| 1988 | 77.7 |  | 1928 | 69.5 |
| 1961 | 77.5 |  | 1945 | 69.9 |
| 1996 | 77.2 |  | 1965 | 70.2 |
| 1985 | 76.6 |  | 1964 | $70.9+$ |
| 1940 | 76.1 |  | 1951 | 71.0 |
| 1990 | 75.7 |  | 1950 | 71.4 |
| 1974 | 75.6 |  |  |  |

Climatological Normals based on (1961-1990) period.

+ Also occurred in earlier years.

TABLE 8
RECORD NUMBER OF DAYS PER YEAR WITH MAXIMUM TEMPERATURES 90, 95, AND 100 DEGREES OR MORE

1928-1997

| 90 or Higher (1) |  | 95 or Higher (2) |  | 100 or Higher (3) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 82 | 1961 | 51 | 1961 | 21 | 1994+ |
| 77 | 1994 | 49 | 1994 | 15 | $1961+$ |
| 75 | 1988 | 47 | -1940 | 13 | 1931 |
| 74 | 1996+ | 46 | 1996+ | 12 | $1990+$ |
| 70 | 1974 | 43 | 1967 | 11 | 1973+ |
| 69 | 1960+ | 40 | 1988 | 10 | 1996+ |
| 68 | 1967+ | 35 | 1979+ | 9 | $1989+$ |
| 67 | 1940 | 34 | 1931 | 8 | $1978+$ |
| 66 | 1979 | 33 | $1989+$ | 7 | 1972+ |
| 63 | $1990+$ | 31 | $1990+$ | 6 | 1988+ |
| 54 | Annual Average | 23 | Annual <br> Average | 5 | Annual Average |

+Also occurred in earlier years.
(1) - Only years with 62 or more days tabulated.
(2) - Only years with 30 or more days tabulated.
(3) - Only years with 6 or more days tabulated.

## TABLE 9

average and greatest number of days per month with maximum temperatures 90, 95, AND 100 DEGREES OR MORE

1928-1997

| Month | 90 or Higher |  | 95 or Higher |  | 100 or Higher |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average | Maximum | Average | Maximum | Average | Maximum |
| May | 1 | 7 in 1958 | 0 |  | 0 |  |
| June | 8 | 20 in 1961 | 3 | 16 in 1961 | 1 | 8 in 1961 |
| July | 23 | 31 in 1960 | 12 | 23 in 1960 | 3 | 15 in 1960 |
| August | 18 | 31 in 1967 | 7 | 22 in 1967 | 1 | 7 in $1994+$ |
| September | 4 | 12 in $1979+$ | 1 | 5 in 1990 | $*$ | 1 in 1979 |
| Annual Average | 54 | 82 in 1961 | 23 | 51 in 1961 | 5 | 21 in 1960 |

+Also occurred in earlier years.

* A high of 100 degrees was recorded on September 8, 1979 and is the only day in September ever to reach 100 degrees.

TABLE 10
GREATEST NUMBER OF CONSECUTIVE DAYS WITH A TEMPERATURE OF 90 DEGREES OR MORE

1928-1997

| Days | Period | Year | Days | Period | Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | July 18 - September 5 | 1967 | 25 | July 8 - August 1 | 1933 |
| 39 | July 4 - August 11 | 1966 | 24 | July 28 - August 24 | 1963 |
| 38 | July 5 - August 11 | 1961 | 22 | July 18 - August 8 | 1989 |
| 38 | June 24 - July 31 | 1960 | 22 | July 20 - August 10 | 1942 |
| 33 | July 10 - August 11 | 1969 | 21 | July 22 - August 11 | 1978 |
| 33 | July 10 - August 11 | 1964 | 21 | July 17 - August 6 | 1974 |
| 32 | July 8 - August 8 | 1994 | 21 | July 23 - August 12 | 1972 |
| 31 | July 2 - August 1 | 1968 | 21 | July 11 - July 31 | 1959 |
| 30 | July 24 - August 22 | 1971 | 21 | July 8 - July 28 | 1956 |
| 27 | July 5 - July 31 | 1935 | 19 | June 28 - July 16 | 1985 |
| 26 | July 28 - August 22 | 1940 | 19 | July 24 - August 11 | 1979 |

Only periods of 19 days or more tabulated.

## TABLE 11

GREATEST NUMBER OF DAYS IN ONE MONTH WITH A TEMPERATURE OF 90 DEGREES OR MORE

1928-1997

| Days | Month | Year | Days | Month | Year |
| :---: | :--- | :---: | :---: | :--- | :---: |
| 31 | August | 1967 | 27 | July | $1996+$ |
| 31 | July | 1960 | 26 | July | 1978 |
| 30 | July | $1968+$ | 25 | August | $1981+$ |
| 29 | July | $1966+$ | 25 | July | $1959+$ |
| 28 | August | $1994+$ | 24 | August | 1996 |
| 28 | July | $1989+$ | 21 | August | 1997 |

Only periods of 24 days or more tabulated.

+ Also occurred in July or August of earlier years.

TABLE 12
EARLIEST DATE OF OCCURRENCE IN THE SPRING AND THE LATEST DATE OF OCCURRENCE IN THE FALL OF 90 DEGREES OR MORE

1928-1997

Earliest in the Spring $\qquad$ May 2, 1947
Latest in the Fall.
.September 30, 1957

TABLE 13
GREATEST NUMBER OF CONSECUTIVE DAYS WITH A TEMPERATURE OF 95 DEGREES OR MORE

1928-1997

| Days | Period | Year | Days | Period | Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | July 23 - August 11 | 1978 | 11 | July 11 - July 21 | 1933 |
| 20 | July 11 - July 30 | 1960 | 10 | July 20 - July 29 | 1945 |
| 19 | July 20 - August 7 | 1994 | 10 | -July 23 - August 1 | 1943 |
| 16 | August 11 - August 26 | 1967 | 10 | June 12 - June 21 | 1940 |
| 15 | July 13 - July 27 | 1931 | 9 | July 21 - July 29 | 1980 |
| 12 | June 18 - June 29 | 1961 | 9 | July 3 - July 11 | 1976 |
| 12 | August 3 - August 14 | 1960 | 9 | July 3 - July 11 | 1973 |
| 12 | July 6 - July 17 | 1954 | 9 | August 4-August 12 | 1972 |
| 12 | July 4 - July 15 | 1940 | 9 | July 11 - July 19 | 1934 |
| 11 | August 1 - August 11 | 1985 | 9 | August 14 - August 22 | 1932 |
| 11 | July 18 - July 28 | 1937 | 9 | August 9 - August 17 | 1996 |
| 11 | July 16 - July 26 | 1936 | 9 | August 20 - August 28 | 1997 |

Only periods of 9 days or more tabulated.
TABLE 14
GREATEST NUMBER OF DAYS IN ONE MONTH WTTH A TEMPERATURE
OF 95 DEGREES OR MORE
1928-1997

| Days | Month | Year | Days | Month | Year |
| :---: | :--- | :---: | :---: | :--- | :---: |
| 23 | July | 1960 | 18 | July | $1964+$ |
| 22 | August | 1967 | 17 | August | $1994+$ |
| 22 | July | 1961 | 17 | July | $1976+$ |
| 21 | July | $1996+$ | 16 | July | $1985+$ |
| 20 | July | $1994+$ | 16 | June | 1961 |
| 19 | July | $1969+$ | 16 | August | 1996 |
| 18 | August |  | August | 1997 |  |

Only periods of 16 days or more tabulated.

+ Also occurred in July or August of earlier years.
TABLE 15
EARLIEST DATE OF OCCURRENCE IN THE SPRING AND THE LATEST DATE OF OCCURRENCE IN THE FALL OF 95 DEGREES OR MORE

1928-1997

Earliest in the Spring.
.May 31, 1997
Latest in the Fall.
September 19, 1956

TABLE 16
GREATEST NUMBER OF CONSECUTIVE DAYS WITH A TEMPERATURE OF 100 DEGREES OR MORE

1928-1997

| Days | Period | Year | Days | Period | Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | July 14 - July 22 | 1960 | 4 | July 15 - July 18 | 1979 |
| 8 | July 20 - July 27 | 1931 | 4 | July 24 - July 27 | 1978 |
| 6 | July 25 - July 30 | 1994 | 4 | July 8 - July 11 | 1973 |
| 6 | July 6 - July 11 | 1976 | 4 | July 3 - July 6 | 1973 |
| 6 | July 24 - July 29 | 1960 | 4 | August 9 - August 12 | 1972 |
| 5 | August 3 - August 7 | 1994 | 4 | August 12 - August 15 | 1962 |
| 5 | July 2 - July 6 | 1985 | 4 | June 20 - June 23 | 1961 |
| 4 | June 29 - July 2 | 1990 | 4 | July 10 - July 13 | 1954 |
| 4 | June 23 - June 26 | 1990 | 4 | July 24 - July 27 | 1943 |
| 4 | August 3 - August 6 | 1979 | 4 | July 16 - July 19 | 1940 |
| 3 | August 11 - August 13 | 1996 |  |  |  |

Only periods of 3 days or more tabulated.

TABLE 17
GREATEST NUMBER OF DAYS IN ONE MONTH WITH A TEMPERATURE OF 100 DEGREES OR MORE 1928-1997

| Days | Month | Year | Days | Month | Year |
| :---: | :--- | :---: | :---: | :--- | :---: |
| 15 | July | 1960 | 8 | June | 1961 |
| 13 | July | 1994 | 7 | August | 1994 |
| 12 | July | 1931 | 7 | July | $1978+$ |
| 9 | July | $1989+$ | 6 | June | 1990 |
| 8 | July | 1976 | 6 | July | $1985+$ |

Only periods of 6 days or more tabulated.

+ Also occurred in July or August of earlier years.

TABLE 18
EARLIEST DATE OF OCCURRENCE IN THE SPRING AND THE LATEST DATE OF OCCURRENCE IN THE FALL OF 100 DEGREES OR HIGHER

## 1928-1997

Earliest in the Spring
Latest in the Fall.
.September 8, 1979

TABLE 19
GREATEST NUMBER OF DAYS IN ONE MONTH WITH A MAXIMUM TEMPERATURE OF 32 DEGREES OR BELOW

1928-1997

| Days | Month | Year | Days | Month | Year |
| :---: | :--- | :---: | :---: | :--- | :---: |
| 26 | January | $1949+$ | 17 | January | 1929 |
| 25 | January | 1944 | 16 | December | $1972+$ |
| 25 | December | 1930 | 16 | January | 1950 |
| 24 | January | 1931 | 15 | January | $1989+$ |
| 23 | January | 1973 | 15 | December | 1967 |
| 22 | January | $1984+$ | 15 | February | 1950 |
| 21 | January | $1985+$ | 14 | December | $1993+$ |
| 20 | December | $1942+$ | 13 | January | $1990+$ |
| 20 | January | 1947 | 13 | December | 1985 |
| 19 | January | 1964 | 13 | February | $1968+$ |
| 18 | January | February |  |  |  |
| 17 |  |  |  |  |  |

Only months with 13 or more days tabulated.

+ Also occurred in earlier years.
TABLE 20
GREATEST NUMBER OF CONSECUTIVE DAYS WITH A MAXIMUM TEMPERATURE OF 32 DEGREES OR BELOW

1928-1997

| Days | Period | Days | Period |
| :---: | :---: | :---: | :---: |
| 18 | December 20, 1990 - January 6, 1991 | 15 | December 28, 1946 - January 11, 1947 |
| 18 | January 23, 1949 - February 9, 1949 | 14 | December 23, 1987 - January 5, 1988 |
| 17 | January 21, 1962 - February 6,1962 | 14 | January 8, 1987 - January 21, 1987 |
| 15 | December 16, 1985 - December 30, 1985 | 14 | December 29, 1972 - January 11, 1973 |
| 15 | January 20, 1979 - February 5, 1979 |  |  |

Only periods of 14 or more days tabulated.
TABLE 21
NORMAL NUMBER OF DAYS WITH A MAXIMUM TEMPERATURE OF 32 DEGREES OR BELOW

| November......... 1 day | January.........11 days | March......... 1 day |
| :--- | :--- | :---: |
| December.........9 days | February......... 4 days | Annual......... 26 days |

Climatological Normals based on (1961-1990) period.

TABLE 22
GREATEST NUMBER OF CONSECUTIVE DAYS WITH A MINIMUM OF 32 DEGREES OR BELOW 1928-1997

| Days | Time Period |
| :---: | :---: |
| 94 | November 14, 1930 - February 15, 1931 |
| 88 | December 1, 1932 - March 8, 1933 |
| 85 | November 20, 1990 - February 12, 1991 |
| 81 | November 15, 1928 - February 3, 1929 |
| 62 | January 6, 1928 - March 8, 1928 |
| 62 | December 21, 1943 - February 21, 1944 |
| 61 | December 31, 1984 - March 1, 1985 |
| 60 | November 21, 1963 - January 19, 1964 |
| 57 | December 28, 1975 - February 22, 1976 |
| 55 | January 3, 1955 - February 25, 1955 |

Only periods of 55 days or more tabulated.

TABLE 23
AVERAGE NUMBER OF DAYS WITH A MINIMUM OF 32 DEGREES OR BELOW 1928-1997

| Month | Number of Days |
| :--- | :---: |
| January | 28 days |
| February | 23 days |
| March | 16 days |
| April | 6 days |
| May | 1 day |
| June | 0 |
| July | 0 |
| August | 0 |
| September | 0 |
| October | 5 days |
| November | 18 days |
| December | 28 days |
| Annual Average | 125 days |

TABLE 24
GREATEST NUMBER OF DAYS IN ONE MONTH WITH A MINIMUM TEMPERATURE OF 0 DEGREES OR BELOW

1928-1997

| Days | Month | Year | Days | Month | Year |
| :---: | :--- | :---: | :---: | :--- | :---: |
| 15 | January | 1949 | 7 | January | 1973 |
| 14 | January | 1937 | 7 | December | 1932 |
| 12 | December | 1930 | 6 | January | $1974+$ |
| 11 | February | 1933 | 6 | December | 1931 |
| 9 | December | 1990 | 6 | February | 1929 |
| 9 | December | 1972 | 5 | January | $1984+$ |
| 9 | January | 1932 | 5 | February | 1949 |
| 8 | January | 1942 |  |  |  |

Only months with 5 or more days tabulated.

+ Also occurred in earlier years.

TABLE 25
GREATEST NUMBER OF CONSECUTIVE DAYS WITH A MINIMUM TEMPERATURE OF 0 DEGREES OR BELOW

1928-1997

| Days | Period | Days | Period |
| :---: | :---: | :---: | :---: |
| 13 | December 20, 1930 - January 1, 1931 | 6 | January 7, 1937 - January 12, 1937 |
| 8 | December 9, 1972 - December 16, 1972 | 6 | December 11, 1932 - December 16, 1932 |
| 7 | January 20, 1937 - January 26, 1937 | 5 | December 29, 1990 - January 2, 1991 |
| 7 | February 4, 1933 - February 10, 1933 | 5 | January 17, 1984 - January 21, 1984 |
| 6 | December 20, 1990 - December 25, 1990 | 5 | January 21, 1962 - January 28, 1962 |
| 6 | January 3, 1973 - January 8, 1973 | 5 | February 7, 1929 - February 11, 1929 |
| 6 | January 24, 1949 - January 29, 1949 |  |  |

Only periods of 5 or more days tabulated.
TABLE 26
AVERAGE NUMBER OF DAYS WITH A MINIMUM TEMPERATURE OF 0 DEGREES OR BELOW 1928-1997

| November.......... 0 days | January......... 2 days | Annual.......... 3 days |
| :---: | :---: | :---: |
| December......... 1 day | February......... less than $1 / 2$ day |  |

## TABLE 27

FREEZE DATA -- SALT LAKE AIRPORT

| FREEZE (32 DEGREES OR BELOW) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Earliest Date in the Spring | Latest Date in the Spring | Average Date in the Spring | Earliest Date in the Fall | Latest Date in the Fall | Average Date in the Fall |
| March 11, 1992 | May 28, 1954 |  | Sept 13, 1928 | Nov 14, 1988 |  |
| March 19, 1940 | May 25, 1975 |  | Sept 17, 1965 | Nov 13, 1944 |  |
| March 21, 1989 | May 23, 1966 |  | Sept 18, 1946 | Nov 11, 1987 |  |
| March 30, 1985 | May 19, 1931 |  | Sept 19, 1942 | Nov 9, 1985 |  |
| April 3, 1944 | May 19, 1938 |  | Sept 19, 1964 | Nov 8, 1983 |  |
| April 8, 1994 | May 19, 1950 |  | Sept 22, 1968 | Nov 5, 1974 |  |
| April 8, 1981 | May 19, 1960 | April 30 | Sept 24, 1961 | Nov 3, 1940 | October 15 |
| April 8, 1973 | May 16, 1955 |  | Sept 25, 1958 | Nov 3, 1992 |  |
| April 9, 1952 | May 13, 1943 |  | Sept 25, 1970 | Nov 1, 1977 |  |
| April 9, 1936 | May 13, 1951 |  | Sept 27, 1934 | Oct 31, 1981 |  |
| April 10, 1976 | May 13, 1967 |  | Sept 27, 1936 | Oct 30, 1979 |  |
| April 13, 1987 | May 11, 1930 |  | Sept 28, 1941 | Oct 29, 1993 |  |
| April 13, 1980 | May 11, 1933 |  | Sept 28, 1971 | Oct 28, 1972+ |  |
| April 14, 1993 |  |  |  |  |  |

+ Also occurred in earlier years.

| *FREEZE-FREE PERIOD |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Longest |  | Shortest |  | Average Length |
| Days | Date | Days | Date |  |
| 236 | March 12 - November 2, 1992 | 124 | May 29 - September 29, 1954 |  |
| 223 | March 31 - November 8, 1985 | 132 | May 8 - September 16, 1965 |  |
| 209 | March 22 - October 17, 1989 | 134 | May 20 - September 30, 1950 |  |
| 205 | April 20 - November 10, 1987 | 136 | May 6 - September 18, 1964 |  |
| 203 | April 8 - October 29, 1994 | 137 | May 8 - September 21, 1968 | 167 days |
| 197 | April 14 - October 29, 1993 | 139 | May 24 - October 9, 1966 |  |
| 195 | May 3 - November 13, 1988 | 139 | May 2 - September 17, 1946 |  |
| 195 | April 17 - November 7, 1983 | 139 | May 23 - October 8, 1982 |  |
| 194 | April 23 - November 2, 1940 | 140 | May 7 - September 23, 1961 |  |
| 194 | Aril 21 - October 31, 1977 | 141 | May1 - September 18, 1942 |  |
| 193 | May 4 - November 12, 1944 + |  |  |  |

*Freeze-free period is the number of days between the last freeze ( 32 degrees or below) in the Spring and the first freeze ( 32 degrees or below) in the Fall.

+ Also occurred in earlier years.

TABLE 28
GROWING SEASON DATA -- SALT LAKE AIRPORT
1928-1997

| Minimum <br> Temperature Base | Latest in Spring | Spring Average | First in Fall | Fall Average |
| :---: | :---: | :---: | :---: | :---: |
| 32 or below | May 28, 1954 | April 30 | September 13, 1928 | October 15 |
| 28 or below | May 9, 1930 | April 12 | September 18, 1965 | October 25 |
| 24 or below | April 21,1982 | March 24 | October 17,1964 | November 9 |
| 20 or below | April 10,1933 | March 10 | October 25,1932 | November 22 |
| 16 or below | April 5,1955 | February 24 | October 30, 1971 | November 28 |
| 10 or below | March 19,1965 | February 9 | November 3,1936 | December 11 |


| Minimum Temperature Base | Minimum Length of Growing Season |  | Maximum Length of Growing Season |  | Average Length |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Period | Days | Period | Days | Days |
| 32 or below | $\begin{gathered} \text { May } 29 \text { - September } 29 \\ 1954 \end{gathered}$ | 124 | March 11 - November 3 1992 | 237 | 167 |
| 28 or below | $\begin{gathered} \text { May } 9-\text { October } 16 \\ 1930 \end{gathered}$ | 159 | February 8 - November 3 1992 | 270 | 199 |
| 24 or below | $\begin{gathered} \text { April } 17 \text { - October } 29 \\ 1960 \end{gathered}$ | 194 | January 27 - November 26 1934 | 302 | 226 |
| 20 or below | $\begin{gathered} \text { April } 2 \text { - November } 2 \\ 1936 \end{gathered}$ | 213 | January 26 - November 30 1934 | 307 | 254 |
| 16 or below | $\begin{gathered} \text { April } 2 \text { - November } 2 \\ 1936 \end{gathered}$ | 213 | $\begin{gathered} \text { December } 21 \text { - December } 5 \\ 1977-1978 \end{gathered}$ | 348 | 278 |
| 10 or below | February 28 - November 18 1929 | 262 | $\begin{gathered} \text { November } 22-\text { February } 1 \\ 1994-1996 \end{gathered}$ | 436 | 310 |

Growing season is the number of days between the last selected minimum temperature base in the spring and the first selected minimum temperature base in the fall.

FIGURE 5
SALT LAKE CITY AIRPORT SEASONAL PRECIPITATION RECORD
1928-1929 to 1996-1997 (Water Year)\#


TABLE 29
MAXIMUM AND MINIMUM TOTAL ANNUAL PRECIPITATION BY CALENDAR YEAR 1929-1997

| Maximum Annual Precipitation |  |  |  | Normal <br> Annual <br> Precip. | Minimum Annual Precipitation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amount | Year | Amount | Year |  | Amount | Year | Amount | Year |
| 24.26" | 1983 | 19.87" | 1970 |  | 8.70" | 1979 | 10.11" | 1933 |
| 22.86" | 1982 | 19.40" | 1986 |  | 8.99" | 1966 | 10.34" | 1935 |
| 21.55" | 1984 | 18.87" | 1993 | 16.18" | 9.29" | 1988 | 10.69" | 1990 |
| 21.11" | 1968 | 18.79" | 1941 |  | $9.36{ }^{\prime \prime}$ | 1939 | 10.72" | 1958 |
| 20.39" | 1973 | 18.49" | 1944 |  | 9.42" | 1931 | 10.87" | 1989 |

Normal annual precipitation from Climatological Standard Normals (1961-1990).

TABLE 30*
THE AVERAGE TIME INTERVAL (RETURN PERIOD) BETWEEN THE OCCURRENCE OF THE LISTED PRECIPITATION AMOUNTS AND THAT OF AN EQUAL OR GREATER AMOUNT 1929-1970\#

| Return <br> Period <br> (Years) | 5 minutes | 10 minutes | 15 minutes | 30 minutes | 1 hour | 2 hours | 24 hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | .03 | .06 | .08 | .13 | .19 | .28 | .65 |
| 2 | .15 | .24 | .29 | .36 | .45 | .58 | 1.34 |
| 5 | .24 | .40 | .48 | .62 | .74 | .89 | 1.79 |
| 10 | .30 | .52 | .64 | .85 | 1.02 | 1.17 | 2.10 |
| 50 | .43 | .81 | 1.12 | 1.63 | 1.93 | 2.02 | 2.81 |
| 100 | .48 | .95 | 1.38 | 2.09 | 2.49 | 2.51 | 3.13 |

[^2]| 1 | 1933-34 | 8.16 | 69 |
| :---: | :---: | :---: | :---: |
| 2 | 1978-79 | 8.19 | 68 |
| 3 | 1930-31 | 9.27 | 67 |
| 4 | 1965-66 | 9.53 | 66 |
| 5 | 1987-88 | 9.94 | 65 |
| 6 | 1959-60 | 10.43 | 64 |
| 7 | 1986-87 | 10.71 | 63 |
| 8 | 1989-90 | 10.88 | 62 |
| 9 | 1988-89 | 10.99 | 61 |
| 10 | 1932-33 | 11.28 | 60 |
| 11 | 1939-40 | 11.34 | 59 |
| 12 | 1960-61 | 11.43 | 58 |
| 13 | 1953-54 | 11.78 | 57 |
| 14 | 1938-39 | 12.00 | 56 |
| 15 | 1942-43 | 12.14 | 55 |
| 16 | 1991-92 | 12.18 | 54 |
| 17 | 1954-55 | 12.24 | 53 |
| 18 | 1945-46 | 12.35 | 52 |
| 19 | 1952-53 | 12.37 | 51 |
| 20 | 1962-63 | 12.43 | 50 |
| 21 | 1955-56 | 12.53 | 49 |
| 22 | 1957-58 | 12.81 | 48 |
| 23 | 1993-94 | 12.84 | 47 |
| 24 | 1937-38 | 12.87 | 46 |
| 25 | 1980-81 | 13.04 | 45 |
| 26 | 1935-36 | 13.37 | 44 |
| 27 | 1936-37 | 13.42 | 43 |
| 28 | 1934-35 | 13.65 | 42 |
| 29 | 1971-72 | 14.03 | 41 |
| 30 | 1958-59 | 14.12 | 40 |
| 31 | 1950-51 | 14.18 | 39 |
| 32 | 1947-48 | 14.36 | 38 |
| 33 | 1931-32 | 14.54 | 37 |
| 34 | 1976-77 | 14.90 | 36 |
| 35 | 1995-96 | 14.99 | 35 |
| 36 | 1929-30 | 15.13 | 34 |
| 37 | 1928-29 | 15.16 | 33 |
| 38 | 1941-42 | 15.49 | 32 |
| 39 | 1949-50 | 15.50 | 31 |
| 40 | 1963-64 | 15.58 | 30 |
| 41 | 1990-91 | 15.61 | 29 |
| 42 | 1973-74 | 15.64 | 28 |
| 43 | 1944-45 | 16.04 | 27 |
| 44 | 1975-76 | 16.31 | 26 |
| 45 | 1966-67 | 16.35 | 25 |
| 46 | 1979-80 | 16.73 | 24 |
| 47 | 1968-69 | 16.75 | 23 |
| 48 | 1948-49 | 16.83 | 22 |
| 49 | 1961-62 | 16.88 | 21 |
| 50 | 1984-85 | 17.26 | 20 |
| 51 | 1974-75 | 17.54 | 19 |
| 52 | 1969-70 | 17.76 | 18 |
| 53 | 1940-41 | 18.17 | 17 |
| 54 | 1996-97 | 18.47 | 16 |
| 55 | 1956-57 | 18.77 | 15 |
| 56 | 1946-47 | 18.83 | 14 |
| 57 | 1967-68 | 18.84 | 13 |
| 58 | 1943-44 | 18.85 | 12 |
| 59 | 1977-78 | 19.23 | 11 |
| 60 | 1992-93 | 19.24 | 10 |
| 61 | 1951-52 | 19.29 | 9 |
| 62 | 1970-71 | 19.86 | 8 |
| 63 | 1982-83 | 20.58 | 7 |
| 64 | 1964-65 | 20.79 | 6 |
| 65 | 1994-95 | 20.97 | 5 |
| 66 | 1972-73 | 22.26 | 4 |
| 67 | 1985-86 | 23.40 | 3 |
| 68 | 1983-84 | 23.82 | 2 |
| 69 | 1981-82 | 25.15 | 1 |

WATER YEAR PRECIPITATION 1928-1997

TABLE 32
NORMAL, MAXIMUM AND MINIMUM MONTHLY PRECIPITATION TOTALS
1928-1997

|  | max | yenr | MIN | vear |  | max | year | MIN | year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JANUARY <br> Normal Monthly Total <br> 1.11 | 3.23 | 1993 | . 09 | 1961 | JULY <br> Normal Monthly Total <br> 0.81 | 2.57 | 1982 | T* | 1963 |
|  | 3.14 | 1940 | . 17 | 1935 |  | 2.52 | 1962 | . 01 | 1947 |
|  | 3.09 | 1996 | . 34 | 1948 |  | 2.17 | 1951 | . 02 | 1960 |
|  | 2.87 | 1980 | . 39 | 1945 |  | 1.92 | 1945 | . 04 | 1988+ |
|  | 2.73 | 1953 | .41 | 1966 |  | 1.72 | 1984 | . 05 | 1958 |
| FEBRUARY <br> Normal Monthly Total $1.23$ | 3.22 | 1936 | . 12 | 1946 | AUGUST <br> Normal Monthly Total $0.86$ | 3.66 | 1968 | T* | 1944 |
|  | 2.84 | 1969 | . 13 | 1988 |  | 3.28 | 1945 | . 02 | 1996 |
|  | 2.32 | 1968 | . 27 | 1931 |  | 3.06 | 1930 | . 03 | 1985+ |
|  | 2.25 | 1980 | . 35 | 1990+ |  | 2.94 | 1932 | . 07 | 1967 |
|  | 2.20 | 1958 | . 39 | 1953 |  | 2.64 | 1983 | . 10 | 1975 |
| $\left\lvert\, \begin{aligned} & \text { MARCH } \\ & \text { Normal Monthly } \\ & \text { Total } \\ & 1.91 \end{aligned}\right.$ | 3.97 | 1983 | . 10 | 1956 | SEPTEMBER <br> Normal Monthly Total $1.28$ | 7.04 | 1982 | T* | 1951+ |
|  | 3.67 | 1944 | . 14 | 1965 |  | 4.07 | 1973 | . 02 | 1952 |
|  | 3.56 | 1952 | . 20 | 1955 |  | 2.80 | 1970 | . 03 | 1974 |
|  | 3.47 | 1978 | . 48 | 1934 |  | 2.75 | 1986 | . 05 | 1987+ |
|  | 3.44 | 1975 | . 56 | 1997 |  | 2.55 | 1991 | . 06 | 1932 |
| APRIL <br> Normal Monthly Total $2.12$ | 4.90 | 1944 | . 45 | 1981+ | OCTOBER <br> Normal Monthly Total <br> 1.44 | 3.91 | 1981 | 0 | 1952 |
|  | 4.57 | 1974 | . 46 | 1989 |  | 3.70 | 1984 | T* | 1978+ |
|  | 4.55 | 1986 | . 59 | 1977 |  | 3.61 | 1946 | . 01 | 1988 |
|  | 4.43 | 1984 | . 64 | 1985 |  | 3.23 | 1971 | . 17 | 1935 |
|  | 3.86 | 1963 | . 65 | 1954 |  | 2.79 | 1949 | . 18 | 1944 |
| MAY <br> Normal Monthly Total $1.80$ | 4.76 | 1977 | T* | 1934 | NOVEMBER <br> Normal Monthly Total $1.29$ | 2.96 | 1994 | . 01 | 1939 |
|  | 3.99 | 1993 | . 01 | 1940 |  | 2.63 | 1985 | . 03 | 1976 |
|  | 3.68 | 1995+ | . 14 | 1972 |  | 2.57 | 1934 | . 05 | 1943 |
|  | 3.39 | 1986 | . 18 | 1969 |  | 2.52 | 1973 | . 10 | 1959 |
|  | 3.37 | 1957 | . 19 | 1929 |  | 2.46 | 1992 | . 13 | 1929 |
| JUNE <br> Normal Monthly Total $0.93$ | 2.93 | 1947 | T | 1994 | DECEMBER <br> Normal Monthly Total <br> 1.40 | 4.37 | 1983 | . 08 | 1976 |
|  | 2.83 | 1969 | . 01 | 1946+ |  | 3.82 | 1964 | . 10 | 1986 |
|  | 2.78 | 1944 | . 03 | 1988 |  | 3.22 | 1972 | . 13 | 1989 |
|  | 2.73 | 1967+ | . 04 | 1958 |  | 2.90 | 1951 | . 28 | 1962 |
|  | 2.61 | 1964 | . 06 | 1978+ |  | 2.80 | 1970 | . 37 | 1980 |

(T) A trace means too small to measure.

Annual average 16.18 inches based on (1961-1990) period.

+ Also occurred in earlier years.

TABLE 33
MAXIMUM AND MINIMUM WATER YEAR PRECIPITATION
1928-1929 through 1996-1997

| $\begin{gathered} \text { Maximum } \\ \text { Seasonal } \\ \text { Precipitation } \end{gathered}$ | Year | Normal Water Year Precipitation16.18" | Minimum Seasonal Precipitation | Year |
| :---: | :---: | :---: | :---: | :---: |
| 25.15" | 1981-1982 |  | 8.16" | 1933-1934 |
| 23.82" | 1983-1984 |  | 8.19" | 1978-1979 |
| $23.40^{\prime \prime}$ | 1985-1986 |  | 9.27" | 1930-1931 |
| $22.26{ }^{\prime \prime}$ | 1972-1973 |  | $9.53{ }^{\prime \prime}$ | 1965-1966 |
| 20.97" | 1994-1995 |  | $9.94{ }^{\prime \prime}$ | 1987-1988 |
| 20.79" | 1964-1965 |  | 10.43" | 1959-1960 |
| 20.58" | 1982-1983 |  | 10.71" | 1986-1987 |

Water year begins October 1 and ends September 30.
Normal water year precipitation based on Climatological Standard Normals (1961-1990).

TABLE 34a
GREATEST 24-HOUR PRECIPITATION (Inches)
(Midnight to Midnight)
1928-1997

|  | JANUARY |  | FEBRUARY |  | MARCH |  | APRIL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{D} \\ & \mathrm{~A} \\ & \mathrm{Y} \end{aligned}$ | $\begin{aligned} & 24-\mathrm{HR} \\ & \text { PCPN } \end{aligned}$ | YEAR | $\begin{aligned} & 24-\mathrm{HR} \\ & \text { PCPN } \end{aligned}$ | YEAR | $\begin{aligned} & 24-\mathrm{HR} \\ & \text { PCPN } \end{aligned}$ | YEAR | $\begin{aligned} & 24-\mathrm{HR} \\ & \text { PCPN } \end{aligned}$ | YEAR |
| 1 | . 20 | 1940 | . 43 | 1989 | . 59 | 1977 | . 95 | 1984 |
| 2 | . 75 | 1940 | . 89 | 1936 | 1.11 | 1941 | 1.57 | 1986 |
| 3 | . 45 | 1940 | . 40 | 1945 | . 66 | 1938 | . 73 | 1994 |
| 4 | . 27 | 1978 | 44 | 1976 | . 63 | 1938 | . 67 | 1947 |
| 5 | . 81 | 1987 | . 47 | 1974 | . 55 | 1978 | 76 | 1941 |
|  |  |  |  |  |  |  |  |  |
| 6 | . 41 | 1944 | 81 | 1969 | 48 | 1930 | 62 | 1929 |
| 7 | . 52 | 1993 | . 32 | 1950 | . 50 | 1960 | . 58 | 1946 |
| 8 | . 56 | 1975 | . 65 | 1959 | . 59 | 1986 | 94 | 1949 |
| 9 | . 51 | 1993 | . 41 | 1976 | . 64 | 1987 | 1.19 | 1974 |
| 10 | . 26 | 1968 | . 36 | 1947 | . 65 | 1952 | 1.54 | 1974 |
|  |  |  |  |  |  |  |  |  |
| 11 | . 46 | 1997 | 44 | 1995 | . 82 | 1990 | 27 | 1970 |
| 12 | . 43 | 1932 | . 64 | 1952 | . 47 | 1944 | . 65 | 1944 |
| 13 | . 28 | 1971+ | . 60 | 1970 | 1.56 | 1944 | . 98 | 1972 |
| 14 | 1.36 | 1953 | . 54 | 1987 | 41 | 1960+ | 1.01 | 1952 |
| 15 | . 91 | 1995 | . 55 | 1936 | . 92 | 1963 | . 51 | 1969 |
|  |  |  |  |  |  |  |  |  |
| 16 | . 56 | 1956 | 44 | 1969 | 53 | 1975 | 1.12 | 1941 |
| 17 | . 73 | 1996 | . 49 | 1955 | . 61 | 1968 | . 89 | 1953 |
| 18 | . 60 | 1953 | . 78 | 1980 | . 43 | 1937 | 1.07 | 1959 |
| 19 | . 61 | 1973 | . 38 | 1974 | . 68 | 1983 | . 95 | 1984 |
| 20 | . 56 | 1962 | . 90 | 1934 | . 69 | 1946 | 90 | 1932 |
|  |  |  |  |  |  |  |  |  |
| 21 | . 53 | 1953 | 45 | 1979 | . 71 | 1980 | . 56 | 1962 |
| 22 | . 81 | 1951 | . 50 | 1996 | . 83 | 1964 | 1.00 | 1957 |
| 23 | . 52 | 1967 | . 72 | 1930 | . 88 | 1949 | 1.46 | 1958 |
| 24 | . 54 | 1934 | . 55 | 1943 | . 66 | 1952 | . 70 | 1945 |
| 25 | . 67 | 1996 | . 90 | 1969 | . 68 | 1975 | 1.62 | 1976 |
|  |  |  |  |  |  |  |  |  |
| 26 | . 44 | 1969 | . 51 | 1981 | . 55 | 1981 | . 69 | 1962 |
| 27 | . 61 | 1956 | 41 | 1947 | . 81 | 1940 | . 66 | 1970 |
| 28 | . 45 | 1965 | . 30 | 1930 | . 51 | 1963 | . 62 | 1970 |
| 29 | . 49 | 1980 | . 16 | 1940 | . 73 | 1967 | . 91 | 1951 |
| 30 | . 30 | 1996 |  |  | . 72 | 1948 | . 50 | 1953 |
| 31 | . 48 | 1939 |  |  | . 78 | 1936 |  |  |
|  |  |  |  |  |  |  |  |  |
| max | 1.36 | $\begin{aligned} & 1953 \\ & / 14 \mathrm{~h} \end{aligned}$ | . 90 | $\begin{aligned} & 1969 \\ & 125 \mathrm{th} \end{aligned}$ | 1.56 | $\begin{aligned} & 1944 \\ & 13 \mathrm{th} \end{aligned}$ | 1.62 | $\begin{aligned} & 1976 \\ & 125 \mathrm{th} \end{aligned}$ |

+ Also occurred in earlier years.


## TABLE 34b

GREATEST 24-HOUR PRECIPITATION (Inches)
(Midnight to Midnight)


[^3]TABLE 34c
GREATEST 24-HOUR PRECIPITATION (Inches)
(Midnight to Midnight)
1928-1997


+ Also occurred in earlier years.

TABLE 35
RECORD MAXIMUM PRECIPITATION FOR SPECIFIED TIME PERIODS

| Month | $\begin{gathered} 5 \\ \text { Minutes } \end{gathered}$ | $\begin{gathered} 10 \\ \text { Minutes } \end{gathered}$ | $\begin{gathered} 15 \\ \text { Minutes } \end{gathered}$ | $\begin{gathered} 30 \\ \text { Minutes } \end{gathered}$ | $\begin{gathered} 1 \\ \text { Hour } \end{gathered}$ | 2 <br> Hour | 3 <br> Hour | *24 <br> Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January |  | $\begin{gathered} .10 \\ 13 / 1971 \end{gathered}$ | $\begin{gathered} .12 \\ 14 / 1980 \\ 8 / 1975 \\ 13 / 1971 \end{gathered}$ | $\begin{gathered} .22 \\ 14 / 1980 \end{gathered}$ | $\begin{gathered} .39 \\ 14 / 1980 \end{gathered}$ | $\begin{gathered} .58 \\ 14 / 1980 \end{gathered}$ | $\begin{gathered} .78 \\ 14 / 1980 \end{gathered}$ | $\begin{gathered} 1.36 \\ 14 / 1953 \end{gathered}$ |
| February | $\begin{gathered} .13 \\ 6 / 1950 \end{gathered}$ | $\stackrel{.25}{6 / 1950}$ | $\begin{gathered} .26 \\ 6 / 1950 \end{gathered}$ | $\begin{gathered} .28 \\ 6 / 1950 \end{gathered}$ | $\begin{gathered} .31 \\ 6 / 1950 \end{gathered}$ | $\begin{gathered} .60 \\ 6 / 1969 \end{gathered}$ | $\begin{gathered} .64 \\ 6 / 1969 \end{gathered}$ | $\begin{gathered} 1.05 \\ 25-26 / 1958 \end{gathered}$ |
| March | $\begin{gathered} .33 \\ 2 / 1989 \end{gathered}$ | $\begin{gathered} .43 \\ 2 / 1989 \end{gathered}$ | $\begin{gathered} .45 \\ 2 / 1989 \end{gathered}$ | $\begin{gathered} .50 \\ 2 / 1989 \end{gathered}$ | $\begin{gathered} .53 \\ 1 / 1989 \end{gathered}$ | $\begin{gathered} .55 \\ 2 / 1989 \end{gathered}$ | $\begin{gathered} .64 \\ 7-8 / 1960 \end{gathered}$ | $\begin{gathered} 1.83 \\ 13-14 / 1944 \end{gathered}$ |
| April | $\begin{gathered} .11 \\ 28 / 1973 \end{gathered}$ | .15 $24 / 1951$ $30 / 1936$ | $\begin{gathered} .20 \\ 23 / 1965 \end{gathered}$ | $\begin{gathered} .33 \\ 23 / 1958 \end{gathered}$ | .44 $25 / 1976$ <br> 23/1958 | $\begin{gathered} .80 \\ 23 / 1958 \end{gathered}$ | $\begin{gathered} .95 \\ 23 / 1958 \end{gathered}$ | $\begin{gathered} 2.41 \\ 22-23 / 1957 \end{gathered}$ |
| May | $\begin{gathered} .30 \\ 26 / 1941 \end{gathered}$ | $\begin{gathered} .44 \\ 26 / 1941 \end{gathered}$ | $\begin{gathered} .47 \\ 26 / 1941 \end{gathered}$ | $\begin{gathered} .48 \\ 26 / 1941 \end{gathered}$ | $\begin{gathered} .48 \\ 26 / 1941 \end{gathered}$ | $\begin{gathered} .52 \\ 10 / 1946 \end{gathered}$ | $\begin{gathered} .71 \\ 19 / 1957 \end{gathered}$ | $\begin{gathered} 2.03 \\ 15-16 / 1942 \end{gathered}$ |
| June | $\begin{gathered} .26 \\ 24 / 1936 \end{gathered}$ | $\begin{gathered} .32 \\ 15 / 1956 \end{gathered}$ | $\begin{gathered} .36 \\ 24 / 1936 \end{gathered}$ | $\begin{gathered} .46 \\ 24 / 1936 \end{gathered}$ |  | $\begin{gathered} .63 \\ 21 / 1948 \end{gathered}$ | $\begin{gathered} .75 \\ 21 / 1948 \end{gathered}$ | $\begin{gathered} 1.88 \\ 21-22 / 1948 \end{gathered}$ |
| July | $\begin{gathered} .50 \\ 13 / 1962 \end{gathered}$ | $\begin{gathered} .92 \\ 13 / 1962 \end{gathered}$ | $\begin{gathered} 1.26 \\ 13 / 1962 \end{gathered}$ | $\begin{gathered} 1.79 \\ 13 / 1962 \end{gathered}$ | $\begin{gathered} 1.94 \\ 13 / 1962 \end{gathered}$ | $\begin{gathered} 1.99 \\ 13 / 1962 \end{gathered}$ | $\begin{gathered} 1.99 \\ 13 / 1962 \end{gathered}$ | $\begin{gathered} 2.35 \\ 12-13 / 1962 \end{gathered}$ |
| August | $\begin{gathered} .34 \\ 19 / 1945 \end{gathered}$ | $\begin{gathered} .52 \\ 4 / 1954 \end{gathered}$ | $\begin{gathered} .78 \\ 4 / 1954 \end{gathered}$ | $\begin{gathered} 1.08 \\ 4 / 1954 \end{gathered}$ | $\begin{gathered} 1.31 \\ 4 / 1954 \end{gathered}$ | $\begin{gathered} 1.50 \\ 4 / 1954 \end{gathered}$ | $\begin{gathered} 1.53 \\ 4 / 1954 \end{gathered}$ | $\begin{gathered} 1.96 \\ 26 / 1932 \end{gathered}$ |
| September | $\begin{gathered} .35 \\ 14 / 1977 \end{gathered}$ | $\begin{gathered} .45 \\ 14 / 1977 \end{gathered}$ | $\begin{gathered} .57 \\ 14 / 1954 \end{gathered}$ | $\begin{gathered} .62 \\ 14 / 1977 \end{gathered}$ | $\begin{gathered} .63 \\ 14 / 1977 \end{gathered}$ | $\begin{gathered} .74 \\ 26 / 1982 \end{gathered}$ | $\begin{gathered} .97 \\ 26 / 1982 \end{gathered}$ | $\begin{gathered} 2.30 \\ 26-27 / 1982 \end{gathered}$ |
| October | $\begin{gathered} .12 \\ 7 / 1993 \\ 2 / 1976 \end{gathered}$ | $\begin{gathered} .23 \\ 7 / 1993 \end{gathered}$ | $\begin{gathered} .32 \\ 7 / 1993 \end{gathered}$ | $\begin{gathered} .45 \\ 7 / 1993 \end{gathered}$ | $\begin{gathered} .71 \\ 7 / 1993 \end{gathered}$ | $\begin{gathered} .83 \\ 10 / 1947 \end{gathered}$ | $\begin{gathered} .95 \\ 10 / 1947 \end{gathered}$ | $\begin{gathered} 1.76 \\ 17-18 / 1984 \end{gathered}$ |
| November | $\begin{gathered} .10 \\ 17 / 1948 \end{gathered}$ | $\begin{gathered} .18 \\ 17 / 1948 \end{gathered}$ | $\begin{gathered} .19 \\ 17 / 1948 \end{gathered}$ | $\begin{gathered} .21 \\ 17 / 1948 \end{gathered}$ | $\begin{gathered} .33 \\ 15 / 1952 \end{gathered}$ | $\begin{gathered} .53 \\ 15 / 1952 \end{gathered}$ | $\begin{gathered} .59 \\ 12 / 1964 \end{gathered}$ | $\begin{gathered} 1.13 \\ 16 / 1954 \end{gathered}$ |
| December |  | .10 $23 / 1982$ $23 / 1964$ | $\begin{gathered} .13 \\ 5 / 1956 \end{gathered}$ | $\begin{gathered} .22 \\ 5 / 1956 \end{gathered}$ | $\begin{gathered} .30 \\ 23 / 1964 \end{gathered}$ | $\begin{gathered} .52 \\ 12 / 1937 \end{gathered}$ | $\begin{gathered} .66 \\ 12 / 1937 \end{gathered}$ | $\begin{gathered} 1.82 \\ 28-29 / 1972 \end{gathered}$ |
| Annual | .50 July 13 1962 | .92 July 13 1962 1962 | 1.26 July 13 1962 | $\begin{gathered} 1.79 \\ \text { July } 13 \\ 1962 \end{gathered}$ | 1.94 July 13 1962 <br> 1962 | 1.99 July 13 <br> 1962 |  | $\begin{gathered} 2.41 \\ \text { April } 22-23 \\ 1957 \end{gathered}$ |

Period of record 1936-1991. $\qquad$ .excluding 1938-1940.

[^4]TABLE 36
AVERAGE AND GREATEST NUMBER OF DAYS PER MONTH WITH AT LEAST $0.01,0.10,0.50$, AND 1.00 INCH OF PRECIPITATION
(MIDNIGHT-MIDNIGHT)
1928-1997

| Month | 0.01 inch or more |  |  | 0.10 inch or more |  |  | 0.50 inch or more |  |  | 1.00 inch or more |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Avg <br> Days | Most <br> Days | Year | Avg <br> Days | Most <br> Days | Year | Avg <br> Days | Most <br> Days | Year | $\begin{aligned} & \text { Avg } \\ & \text { Days } \end{aligned}$ | Most <br> Days | Year |
| Jan | 10 | 16 | 1993 | 4 | 9 | 1993 | 0 | 3 | 1953 | * | 1 | 1953 |
| Feb | 9 | 15 | 1993 | 4 | 10 | 1940 | 0 | 3 | 1936 | 0 | 0 | ---- |
| Mar | 10 | 17 | 1975 + | 5 | 12 | 1983 | 1 | 3 | 1977+ | * | 1 | 1944+ |
| Apr | 10 | 16 | $1978+$ | 5 | 12 | $1963+$ | 1 | 5 | 1944 | * | 2 | 1974+ |
| May | 8 | 17 | 1995+ | 4 | 10 | 1981+ | 1 | 3 | 1993 + | * | 2 | 1957 |
| Jun | 5 | 17 | 1967 | 3 | 8 | 1969 | * | 2 | 1964+ | * | 1 | 1985+ |
| Jul | 4 | 12 | 1936 | 2 | 6 | 1965 | * | 3 | 1951 | * | 1 | 1969+ |
| Aug | 6 | 13 | 1945 | 2 | 7 | 1982 | * | 3 | $1971+$ | * | 2 | 1945 |
| Sep | 5 | 15 | 1982 | 2 | 10 | 1982 | 1 | 5 | 1982 | * | 2 | 1982+ |
| Oct | 6 | 13 | $1981+$ | 4 | 12 | 1981 | 1 | 3 | 1984+ | * | 1 | $1993+$ |
| Nov | 8 | 17 | $1994+$ | 4 | 9 | 1985+ | 1 | 3 | 1955 | * | 1 | 1992+ |
| Dec | 10 | 24 | 1983 | 5 | 14 | 1983 | * | 3 | 1964 | * | 1 | 1972+ |
| Annual | 91 | 140 | 1983 | 43 | 71 | 1983 | 6 | 12 | 1977+ | 1 | 4 | 1957+ |

+ Also occurred in earlier years.
* Average is less than $1 / 2$ day.

TABLE 37
greatest number of consecutive days with a trace or more
1928-1997

| Days | Period | Total Rainfall |
| :---: | :---: | :---: |
| 24 | November 17 - December 10, 1983 | $2.19^{\prime \prime}$ |
| 18 | December 22, 1991 - January 8, 1992 | $.75^{\prime \prime}$ |
| 18 | January 28 - February 14, 1984 | $.34^{\prime \prime}$ |
| 17 | December 15 - December 31, 1968 | $1.13^{\prime \prime}$ |
| 16 | February 11 - February 26 1936 | $2.04^{\prime \prime}$ |
| 16 | April 17 - May2, 1951 | $2.62^{\prime \prime}$ |
| 16 | February 8 - February 23, 1986 | $.80^{\prime \prime}$ |
| 15 | December 16 - December 30, 1985 | $.23^{\prime \prime}$ |
| 15 | January 24 - February 7,1979 | $.12^{\prime \prime}$ |
| 15 | February 5 - February 19, 1978 | $1.56^{\prime \prime}$ |
| 15 | January 19 - February 2, 1969 | $1.23^{\prime \prime}$ |
| 15 | March 28 - April 11, 1958 | $1.57^{\prime \prime}$ |

Only 15 or more days tabulated.

## TABLE 38

GREATEST NUMBER OF CONSECUTIVE DAYS WITH . 01 INCH OR MORE OF PRECIPITATION
1928-1997

| \# Days | Period | Total Rainfall |
| :---: | :---: | :---: |
| 10 | February 14 - February 23, 1980 | $2.12^{\prime \prime}$ |
| 9 | December 19 - December 27, 1983 | $1.78^{\prime \prime}$ |
| 9 | December 19 - De 2 mber 27, 1981 | $1.34^{\prime \prime}$ |
| 9 | May 20 - May 28, 1962 | $1.56^{\prime \prime}$ |
| 9 | December 29 - January 6, 1940 | $2.66^{\prime \prime}$ |
| 8 | October 11 - October 18, 1993 | $1.02^{\prime \prime}$ |
| 8 | June 3 - June 10, 1984 | $1.73^{\prime \prime}$ |
| 8 | September 26 - October 3, 1983 | $1.47^{\prime \prime}$ |
| 8 | November 22 - November 29, 1977 | $.41^{\prime \prime}$ |
| 8 | January 4 - January 11, 1975 | $.98^{\prime \prime}$ |
| 8 | October 24 - October 31, 1971 | $2.10^{\prime \prime}$ |
| 8 | February 17 - February 24, 1968 | $.93^{\prime \prime}$ |
| 8 | March 27 - April 4, 1958 | $.87^{\prime \prime}$ |
| 8 | May 13 - May 21, 1949 | $2.27^{\prime \prime}$ |
| 8 | January 8 - January 15, 1949 | $.86^{\prime \prime}$ |

8 or more days tabulated.

## TABLE 39

GREATEST NUMBER OF CONSECUTIVE DAYS WITH . 10 INCH OR MORE OF PRECIPITATION 1928-1997

| \# Days | Period | Total Rainfall |
| :---: | :---: | :---: |
| 7 | September 24 - September 30, 1982 | $4.79^{\prime \prime}$ |
| 6 | May 3 - May 8, 1993 | $3.56^{\prime \prime}$ |
| 6 | January 6 - January 11, 1993 | $1.85^{\prime \prime}$ |
| 6 | May 30 - June 3, 1944 | $2.32^{\prime \prime}$ |
| 5 | May 22 - May 26, 1995 | $1.45^{\prime \prime}$ |
| 5 | October 29 - November 2, 1992 | $1.92^{\prime \prime}$ |
| 5 | May 14 - May 18, 1977 | $2.76^{\prime \prime}$ |
| 5 | April 22 - April 26, 1971 | $1.32^{\prime \prime}$ |
| 5 | April 26 - April 30, 1970 | $2.20^{\prime \prime}$ |

5 or more days tabulated.
TABLE 40
GREATEST NUMBER OF CONSECUTIVE DAYS WITH . 25 INCH OR MORE OF PRECIPITATION 1928-1997

| \# Days | Period | Total Rainfall |
| :---: | :---: | :---: |
| 5 | May 14 - May 18, 1977 | $2.76^{\prime \prime}$ |
| 5 | June 3 - June 7, 1945 | $1.64^{\prime \prime}$ |
| 4 | May 3 - May 6, 1993 | $2.69^{\prime \prime}$ |
| 4 | May 6 - May 9, 1986 | $2.55^{\prime \prime}$ |
| 4 | April 27 - April 30, 1970 | $2.05^{\prime \prime}$ |
| 4 | May 21 - May 24, 1968 | $1.62^{\prime \prime}$ |
| 4 | November 18 - November 21, 1950 | $1.18^{\prime \prime}$ |

8 or more days tabulated.

TABLE 41
GREATEST NUMBER OF CONSECUTIVE DAYS WITHOUT EVEN A TRACE OF PRECIPITATION 1928-1997

| \# Days | Period |
| :---: | :---: |
| 62 | September 12 - November 12, 1952 |
| 30 | August 18 - September 16, 1944 |
| 30 | September 20 - October 19, 1978 |
| 29 | June 18 - July 16, 1944 |
| 29 | January 2 - January 30, 1961 |
| 28 | June 27 - July 24, 1931 |
| 28 | October 3 - October 30, 1933 |
| 27 | September 13 - October 9, 1942 |
| 27 | June 25 - July 21, 1963 |
| 27 | July 30 - August 25, 1985 |
| 26 | May 2 - May 27, 1934 |
| 26 | November 7 - December 2, 1936 |
| 26 | August 30 - September 24, 1943 |
| 26 | August 12 - September 6, 1950 |
| 26 | August 23 - September 17, 1962 |
| 26 | October 15 - November 9, 1962 |

TABLE 42
greatest number of consecutive days without measurable precipitation, BUT INCLUDING TRACES

1928-1997

| \# Days | Period |
| :---: | :---: |
| 63 | September 11 - November 12, 1952 |
| 61 | June 25 - August 24, 1963 |
| 56 | June 2 - July 26, 1935 |
| 56 | July 21 - September 17, 1944 |
| 52 | September 14 - November 4, 1958 |
| 45 | June 14 - July 28, 1959 |
| 44 | October 28 - December 10, 1939 |
| 42 | June 3 - August 14, 1978 |
| 42 | September 20 - October 31, 1978 |
| 38 | August 30 - October 6, 1943 |
| 38 | September 5 - October 11, 1987 |
| 37 | September 22 - October 28, 1964 |
| 37 | August 21 - September 23, 1933 |
| 36 | August 12 - September 15, 1993 |
| 35 | December 27 - January 30, 1961 |
| 35 | August 21 - September 24, 1979 |
| 35 | August 8 - September 11, 1988 |

TABLE 42a
CHANCES OF MEASURABLE PRECIPITATION ON ANY GIVEN DAY OF THE YEAR BASED ON 1928-1997 PERIOD OF RECORD

| Day | January | February | March | April | May | June |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 24.3\% | 27.1\% | 27.1\% | 35.7\% | 30.0\% | 34.3\% |
| 2 | 30.0\% | 34.3\% | 52.9\% | 40.0\% | 22.9\% | 27.1\% |
| 3 | 31.4\% | 21.4\% | 38.6\% | 24.3\% | 21.4\% | 24.3\% |
| 4 | 32.9\% | 24.3\% | 27.1\% | 22.9\% | 27.1\% | 27.1\% |
| 5 | 38.6\% | 24.3\% | 38.6\% | 24.3\% | 27.1\% | 24.3\% |
| 6 | 24.3\% | 31.4\% | 22.9\% | 28.6\% | 32.9\% | 25.7\% |
| 7 | 25.7\% | 27.1\% | 20.0\% | 30.0\% | 31.4\% | 30.0\% |
| 8 | 30.0\% | 35.7\% | 22.9\% | 27.1\% | 37.1\% | 27.1\% |
| 9 | 24.3\% | 30.0\% | 21.4\% | 37.1\% | 24.3\% | 30.0\% |
| 10 | 34.3\% | 28.6\% | 24.3\% | 32.9\% | 31.4\% | 22.9\% |
| 11 | 40.0\% | 28.6\% | 40.0\% | 31.4\% | 24.3\% | 12.9\% |
| 12 | 31.4\% | 38.6\% | 25.7\% | 22.9\% | 28.6\% | 22.9\% |
| 13 | 35.7\% | 34.3\% | 41.4\% | 21.4\% | 20.0\% | 17.1\% |
| 14 | 32.9\% | 38.6\% | 41.4\% | 28.6\% | 22.9\% | 15.7\% |
| 15 | 35.7\% | 30.0\% | 28.6\% | 18.6\% | 31.4\% | 15.7\% |
| 16 | 37.1\% | 35.7\% | 25.7\% | 21.4\% | 32.9\% | 20.0\% |
| 17 | 31.4\% | 40.0\% | 37.1\% | 31.4\% | 24.3\% | 17.1\% |
| 18 | 34.3\% | 42.9\% | 25.7\% | 37.1\% | 21.4\% | 14.2\% |
| 19 | 31.4\% | 28.6\% | 30.0\% | 38.6\% | 24.3\% | 11.4\% |
| 20 | 30.0\% | 28.6\% | 21.4\% | 30.0\% | 25.7\% | 11.4\% |
| 21 | 28.6\% | 25.7\% | 25.7\% | 35.7\% | 25.7\% | 12.9\% |
| 22 | 32.9\% | 35.7\% | 28.6\% | 34.3\% | 25.7\% | 11.4\% |
| 23 | 40.0\% | 34.3\% | 40.0\% | 30.0\% | 24.3\% | 8.6\% |
| 24 | 35.7\% | 27.1\% | 42.9\% | 30.0\% | 30.0\% | 15.7\% |
| 25 | 28.6\% | 25.7\% | 32.9\% | 42.9\% | 24.3\% | 10.0\% |
| 26 | 24.3\% | 30.0\% | 25.7\% | 35.7\% | 25.7\% | 14.3\% |
| 27 | 31.4\% | 28.6\% | 31.4\% | 37.1\% | 31.4\% | 11.4\% |
| 28 | 40.0\% | 22.9\% | 24.3\% | 40.0\% | 22.9\% | 2.9\% |
| 29 | 28.6\% | 25.0\% | 35.7\% | 40.0\% | 22.9\% | 8.6\% |
| 30 | 30.0\% |  | 35.7\% | 31.4\% | 27.1\% | 7.1\% |
| 31 | 32.9\% |  | 35.7\% |  | 31.4\% |  |

TABLE 42b
CHANCES OF MEASURABLE PRECIPITATION ON ANY GIVEN DAY OF THE YEAR
BASED ON 1928-1997 PERIOD OF RECORD

| Day | July | August | September | October | November | December |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 8.6\% | 18.6\% | 12.9\% | 17.1\% | 24.3\% | 34.3\% |
| 2 | 7.1\% | 15.7\% | 17.1\% | 21.4\% | 24.3\% | 27.1\% |
| 3 | 10.0\% | 12.9\% | 14.3\% | 18.6\% | 24.3\% | 24.3\% |
| 4 | 11.4\% | 24.3\% | 17.1\% | 21.4\% | 22.9\% | 32.9\% |
| 5 | 7.1\% | 18.6\% | 18.6\% | 14.3\% | 20.0\% | 24.3\% |
| 6 | 10.0\% | 20.0\% | 18.6\% | 14.3\% | 20.0\% | 24.3\% |
| 7 | 12.9\% | 10.0\% | 14.3\% | 25.7\% | 32.9\% | 32.9\% |
| 8 | 15.7\% | 17.1\% | 14.3\% | 18.6\% | 25.7\% | 20.0\% |
| 9 | 12.9\% | 18.6\% | 11.4\% | 22.9\% | 17.1\% | 28.6\% |
| 10 | 15.7\% | 11.4\% | 20.0\% | 21.4\% | 25.7\% | 27.1\% |
| 11 | 15.7\% | 17.1\% | 20.0\% | 12.9\% | 30.0\% | 27.1\% |
| 12 | 15.7\% | 24.2\% | 18.6\% | 25.7\% | 30.0\% | 25.7\% |
| 13 | 8.6\% | 17.1\% | 17.1\% | 27.1\% | 30.0\% | 27.1\% |
| 14 | 10.0\% | 27.1\% | 15.7\% | 20.0\% | 30.0\% | 14.3\% |
| 15 | 15.7\% | 25.7\% | 10.0\% | 24.3\% | 27.1\% | 22.9\% |
| 16 | 15.7\% | 22.9\% | 10.0\% | 25.7\% | 22.9\% | 25.7\% |
| 17 | 18.6\% | 20.0\% | 17.1\% | 15.7\% | 38.6\% | 31.4\% |
| 18 | 12.9\% | 21.4\% | 22.9\% | 20.0\% | 35.7\% | 24.3\% |
| 19 | 18.6\% | 22.9\% | 22.9\% | 18.6\% | 27.1\% | 32.9\% |
| 20 | 12.9\% | 14.3\% | 28.6\% | 18.6\% | 31.4\% | 24.3\% |
| 21 | 17.1\% | 17.1\% | 17.1\% | 15.7\% | 28.6\% | 31.4\% |
| 22 | 15.7\% | 15.7\% | 15.7\% | 14.3\% | 27.1\% | 32.9\% |
| 23 | 18.6\% | 12.9\% | 22.9\% | 18.6\% | 17.1\% | 35.7\% |
| 24 | 15.7\% | 18.6\% | 20.0\% | 18.6\% | 30.0\% | 25.7\% |
| 25 | 18.6\% | 18.6\% | 22.9\% | 15.7\% | 28.6\% | 34.3\% |
| 26 | 15.7\% | 18.6\% | 12.9\% | 17.1\% | 25.7\% | 30.0\% |
| 27 | 10.0\% | .17.1\% | 18.6\% | 22.9\% | 27.1\% | 28.6\% |
| 28 | 14.3\% | 20.0\% | 14.3\% | 30.0\% | 27.1\% | 38.6\% |
| 29 | 18.6\% | 20.0\% | 12.9\% | 24.3\% | 20.0\% | 41.4\% |
| . 30 | 20.0\% | 8.6\% | 21.4\% | 22.9\% | 21.4\% | 32.9\% |
| 31 | 17.1\% | 10.0\% |  | 28.6\% |  | 27.1\% |

FIGURE 7
SALT LAKE CITY AIRPORT SEASONAL SNOWFALL RECORD 1929-1930 to 1996-1997 (Season)


The snow season extends from July 1 to June 30. The normal annual snowfall at Salt Lake City International is 64.5 inches. Normal annual snowfall based on (1961-1990) period.

TABLE 43
NORMAL, MAXIMUM AND MINIMUM MONTHLY SNOWFALL (INCHES)
1928-1997

|  | max | year | M | year |  | max | year | ma | year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JANUARY <br> Normal Monthly Total $12.7^{*}$ | 50.3 | 1993 | 0.1 | 1961 | JULY <br> Normal Monthly Total $0.0$ |  |  |  |  |
|  | 45.0 | 1996 | 2.4 | 1938 |  |  |  |  |  |
|  | 32.3 | 1937 | 2.5 | 1935 |  |  |  |  |  |
|  | 30.4 | 1967 | 2.8 | 1970 |  |  |  |  |  |
|  | 30.1 | 1949 | 3.7 | 1948 |  |  |  |  |  |
| FEBRUARY <br> Normal Monthly Total $9.3^{\prime \prime}$ | 27.9 | 1969 | T | 1953 | AUGUST <br> Normal Monthly Total $0.0$ |  |  |  |  |
|  | 27.5 | 1989 | 0.3 | 1957 |  |  |  |  |  |
|  | 22.6 | 1996 | 0.4 | 1988 |  |  |  |  |  |
|  | 20.9 | 1936 | 0.8 | 1963+ |  |  |  |  |  |
|  | 20.1 | 1944+ | 0.9 | 1931 |  |  |  |  |  |
| MARCH <br> Normal Monthly Total $11.6^{n}$ | 41.9 | 1977 | 0 | 1993 | SEPTEMBER <br> Normal Monthly Total <br> 0.2" | 4.0 | 1971 | 0 | $1995+$ |
|  | 35.6 | 1952 | T | 1940+ |  | 2.2 | 1965 |  |  |
|  | 33.5 | 1964 | 0.2 | 1992 |  | 1.0 | 1978 |  |  |
|  | 30.8 | 1944 | 0.4 | 1959 |  |  |  |  |  |
|  | 25.3 | 1962 | 0.6 | 1955 |  |  |  |  |  |
| APRIL <br> Normal Monthly Total $7.3^{n}$ | 26.4 | 1974 | 0 | 1954+ | OCTOBER <br> Normal Monthly Total <br> $2.1^{\prime \prime}$ | 20.4 | 1984 | 0 | 1993+ |
|  | 25.1 | 1984 | T | 1989+ |  | 16.6 | 1971 | T | $1994+$ |
|  | 23.6 | 1970 | 0.1 | $1994+$ |  | 10.4 | 1957 |  |  |
|  | 21.8 | 1955 | 0.2 | 1969 |  | 8.3 | 1961 |  |  |
|  | 15.5 | 1958 | 0.3 | 1981 |  | 6.0 | 1972 |  |  |
| MAY <br> Normal Monthly Total $1.1^{\prime \prime}$ | 7.5 | 1975 | 0 | 1994+ | NOVEMBER <br> Normal Monthly Total $6.5^{n}$ | 33.3 | 1994 | 0 | 1939 |
|  | 5.3 | 1965+ |  |  |  | 27.2 | 1985 | T | 1997+ |
|  | 5.0 | 1983 |  |  |  | 19.5 | 1973 | 0.1 | 1995 |
|  | 4.6 | 1978 |  |  |  | 18.5 | 1931 | 0.4 | 1953 |
|  | 2.9 | 1955 |  |  |  | 18.0 | 1975 | 0.6 | 1987+ |
| JUNE <br> Normal Monthly Total $0.0$ |  |  |  |  | DECEMBER <br> Normal Monthly Total $13.7^{\prime \prime}$ | 35.2 | 1972 | 0.9 | 1962 |
|  |  |  |  |  |  | 34.3 | 1948 | 1.0 | 1937 |
|  |  |  |  |  |  | 34.2 | 1983 | 1.2 | 1976 |
|  |  |  |  |  |  | 33.3 | 1968 | 1.4 | 1995 |
|  |  |  |  |  |  | 27.3 | 1932 | 1.7 | $1989+$ |

Hail not included. Climatological normals based on (1961-1990) period.
(T) Trace means too small to measure.

+ Also occurred in earlier years.

TABLE 44
MAXIMUM AND MINIMUM SEASONAL SNOWFALL
1928-1929 through 1996-1997

| Maximum <br> Seasonal <br> Snowfall | Winter <br> Season | Normal <br> Annual Snowfall 64.5" | Minimum Seasonal Snowfall | Winter <br> Season |
| :---: | :---: | :---: | :---: | :---: |
| 117.3" | 1951-1952 |  | 16.6" | 1933-1934 |
| 110.8" | 1973-1974 |  | 18.5" | 1939-1940 |
| 98.7" | 1992-1993 |  | 30.1" | 1940-1941+ |
| 98.0" | 1983-1984 |  | 30.2" | 1980-1981 |
| 91.3" | 1943-1944 |  | 31.3" | 1960-1961 |
| 89.2" | 1968-1969 |  | 31.4" | 1942-1943 |
| 88.2" | 1948-1949 |  | 33.9" | 1930-1931 |

Normals from Climatological Standard Normals (1961-1990).

+ Also occurred in previous years.

TABLE 45a
GREATEST 24-HOUR SNOWFALL (Inches)
(Midnight to Midnight)
1928-1997

|  | JANUARY |  | FEBRUARY |  | MARCH |  | APRIL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D <br> A <br> Y | $\begin{aligned} & \text { MAX } \\ & 24-H R \\ & \text { SNOW } \end{aligned}$ | -YEAR | $\begin{aligned} & \text { MAX } \\ & 24-H R \\ & \text { SNOW } \end{aligned}$ | YEAR | $\begin{aligned} & \text { MAX } \\ & 24-H R \\ & \text { SNOW } \end{aligned}$ | YEAR | $\begin{aligned} & \text { MAX } \\ & 24-H R \\ & \text { SNOW } \end{aligned}$ | YEAR |
| 1 | 4.6 | 1937 | 10.9 | 1989 | 7.3 | 1977 | 6.0 | 1984+ |
| 2 | 9.0 | 1993 | 5.0 | 1936 | 10.1 | 1977 | 9.6 | 1955 |
| 3 | 6.3 | 1944 | 7.0 | 1936 | 4.2 | 1962 | 7.2 | 1983 |
| 4 | 3.3 | 1929 | 6.0 | 1938 | 3.0 | 1938 | 3.9 | 1947 |
| 5 | 6.1 | 1987 | 6.2 | 1974 | 2.4 | 1980 | 3.1 | 1997 |
| 6 | 7.6 | 1967 | 7.9 | 1969 | 4.0 | 1930 | 3.1 | 1968 |
| 7 | 7.7 | 1974 | 3.3 | 1990 | 2.0 | 1945 | 0.5 | 1982 |
| 8 | 6.4 | 1985 | 8.5 | 1959 | 2.6 | 1958 | 0.9 | 1984 |
| 9 | 8.4 | 1993 | 4.5 | 1965 | 4.8 | 1948 | 9.0 | 1929 |
| 10 | 4.0 | 1968 | 7.7 | 1984 | 7.4 | 1962 | 11.8 | 1974 |
| 11 | 7.5 | 1993 | 5.1 | 1995 | 11.0 | 1952 | 2.3 | 1991 |
| 12 | 5.7 | 1932 | 7.7 | 1952 | 1.8 | 1964 | 3.8 | 1974 |
| 13 | 3.0 | 1971+ | 5.8 | 1968 | 9.4 | 1944 | 7.9 | 1972 |
| 14 | 8.5 | 1953 | 7.2 | 1944 | 9.3 | 1944 | 3.0 | 1995 |
| 15 | 4.9 | 1991 | 3.1 | 1978 | 7.9 | 1964 | 2.2 | 1967 |
| 16 | 6.9 | 1955 | 4.2 | 1992 | 5.6 | 1958 | 4.2 | 1941 |
| 17 | 10.0 | 1996 | 3.1 | 1955 | 6.3 | 1968 | 3.7 | 1944 |
| 18 | 5.0 | 1964 | 7.4 | 1961 | 2.1 | 1968 + | 6.5 | 1972 |
| 19 | 7.5 | 1973 | 2.4 | 1989 | 6.1 | 1983 | 2.1 | 1987 |
| 20 | 9.7 | 1962 | 3.9 | 1985 | 4.4 | 1944 | 5.4 | 1968 |
| 21 | 4.5 | 1953 | 3.1 | 1975 | 6.4 | 1980 | 4.5 | 1968 |
| 22 | 5.4 | 1949 | 9.9 | 1994 | 11.5 | 1964 | 1.8 | 1970 |
| 23 | 5.5 | 1950 | 6.4 | 1956 | 3.0 | 1996 | 10.1 | 1958 |
| 24 | 6.4 | 1996 | 5.1 | 1972 | 4.7 | 1952 | 1.6 | 1945 |
| 25 | 13.4 | 1996 | 8.3 | 1969 | 4.5 | 1975 | 8.5 | 1975 |
| 26 | 4.7 | 1969 | 6.0 | 1996 | 4.2 | 1981 | 8.1 | 1955 |
| 27 | 5.1 | 1980 | 6.3 | 1947 | 2.6 | 1981 | 6.3 | 1991 |
| 28 | 5.8 | 1933 | 3.0 | 1930 | 3.0 | 1987 | 6.4 | 1970 |
| 29 | 9.9 | 1980 | T | 1984+ | 8.2 | 1967 | 5.8 | 1967 |
| 30 | 4.2 | 1996 |  |  | 5.2 | 1980 | 3.5 | 1970 |
| 31 | 6.8 | 1939 |  |  | 8.0 | 1936 |  | . |
| mnth | 13.4 | $\begin{aligned} & 1996 \\ & / 25 \mathrm{th} \end{aligned}$ | 10.9 | $\begin{aligned} & 1989 \\ & \text { /1st } \end{aligned}$ | 11.5 | $\begin{aligned} & 1964 \\ & 122 \mathrm{nd} \end{aligned}$ | 11.8 | $\begin{aligned} & 1974 \\ & \hline 10 \mathrm{th} \end{aligned}$ |

Hail not included.
(T) Trace means too small to measure.

+ Also occurred in earlier years.

TABLE 45b
GREATEST 24-HOUR SNOWFALL (Inches)
(Midnight to Midnight)
1928-1997


Hail not included.
(T) Trace means too small to measure.

+ Also occurred in earlier years.


## TABLE 45c

GREATEST 24-HOUR SNOWFALL (Inches)
(Midnight to Midnight)
1928-1997

|  | SEPTEMBER |  | OCTOBER |  | NOVEMBER |  | DECEMBER |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{D} \\ & \mathrm{~A} \\ & \mathrm{Y} \end{aligned}$ | $\begin{aligned} & \text { MAX } \\ & \text { 24-HR } \\ & \text { SNOW } \end{aligned}$ | YEAR | MAX <br> 24-HR <br> SNOW | YEAR | $\begin{aligned} & \text { MAX } \\ & \text { 24-HR } \\ & \text { SNOW } \end{aligned}$ | YEAR | $\begin{aligned} & \text { MAX } \\ & \text { 24-HR } \\ & \text { SNOW } \end{aligned}$ | YEAR |
| 1 |  |  | 0.7 | 1971 | 2.9 | 1956 | 7.3 | 1982 |
| 2 |  |  | T | 1971 | 5.5 | 1957 | 4.5 | 1952 |
| 3 |  |  | T | 1969 | 3.1 | 1973 | 2.0 | 1971 |
| 4 |  |  | 0 |  | 3.0 | 1940 | 8.7 | 1948 |
| 5 |  |  | T | 1941 | 5.0 | 1947 | 7.8 | 1996 |
|  |  |  |  |  |  |  |  |  |
| 6 |  |  | T | 1970+ | 2.6 | 1986 | 6.1 | 1956 |
| 7 |  |  | T | 1970+ | 4.6 | 1945 | 4.5 | 1994 |
| 8 |  |  | T | 1961 | 2.9 | 1966 | 10.5 | 1985 |
| 9 |  |  | T | 1973 + | 2.0 | 1935 | 5.5 | 1931 |
| 10 |  |  | T | $1969+$ | 4.8 | 1978 | 4.0 | 1949 |
|  |  |  |  |  |  |  |  |  |
| 11 |  |  | 0 |  | 4.7 | 1985 | 9.5 | 1968 |
| 12 |  |  | T | 1969 | 5.1 | 1985 | 4.0 | 1993 |
| 13 |  |  | 3.6 | 1966 | 8.3 | 1994 | 7.3 | 1994 |
| 14 |  |  | 0.1 | 1969 | 6.9 | 1955 | 2.6 | 1948 |
| 15 |  |  | 0.2 | 1984 | 9.5 | 1958 | 3.2 | 1992 |
|  |  |  |  |  |  |  |  |  |
| 16 | T | 1946 | T | 1984+ | 5.0 | 1994 | 8.5 | 1967 |
| 17 | 2.2 | 1965 | 4.8 | 1984 | 11.0 | 1930 | 8.8 | 1970 |
| 18 | 1.0 | 1978 | 13.8 | 1984 | 4.1 | 1985 | 3.7 | 1977 |
| 19 |  |  | T | 1984+ | 6.9 | 1941 | 5.2 | 1951 |
| 20 |  |  | 2.5 | 1996 | 7.0 | 1946 | 6.6 | 1967 |
|  |  |  |  |  |  |  |  |  |
| 21 |  |  | 2.0 | 1961 | 4.3 | 1961 | 4.0 | 1979 |
| 22 |  |  | 0.5 | 1995 | 3.6 | 1992 | 4.7 | 1987 |
| 23 |  |  | T | 1975+ | 3.0 | 1931 | 3.8 | 1948 |
| 24 | T | 1984 | 6.6 | 1956 | 4.9 | 1951 | 7.6 | 1932 |
| 25 | T | 1986+ | 1.2 | 1996 | 5.7 | 1944 | 5.9 | 1943 |
|  |  |  |  |  |  |  |  |  |
| 26 | T | 1934 | 1.6 | 1984 | 7.0 | 1973 | 4.3 | 1936 |
| 27 |  |  | 5.8 | 1971 | 4.6 | 1960 | 8.1 | 1948 |
| 28 |  |  | 6.3 | 1961 | 3.5 | 1975 | 12.6 | 1972 |
| 29 | T | 1950 | 3.5 | 1972 | 5.3 | 1991 | 8.0 | 1936 |
| 30 | 4.0 | 1971 | 2.2 | 1981 | 4.2 | 1967 | 5.8 | 1992+ |
| 31 |  |  | 8.5 | 1971 |  |  | 4.7 | 1965+ |
| mnth | 4.0 | $\begin{aligned} & 1971 \\ & 130 \mathrm{th} \end{aligned}$ | 13.8 | $\begin{aligned} & 1984 \\ & / 18 \mathrm{~h} \end{aligned}$ | 11.0 | $\begin{aligned} & 1930 \\ & / 17 \mathrm{~h} \end{aligned}$ | 12.6 | $1972$ |

Hail not included.
(T) Trace means too small to measure.

+ Also occurred in earlier years.

TABLE 45D

## Dates of First Measurable Snowfall in SLC

 1928-1997| September 17, 1965 | November 2, 1973 | November 16, 1968 |
| :---: | :---: | :---: |
| September 18, 1978 | November 2, 1957 | November 16, 1962 |
| September 30, 1971 | November 4, 1959 | November 17, 1987 |
| October 11, 1997 | November 4, 1948 | November 17, 1953 |
| October 13, 1966 | November 4, 1942 | November 17, 1928 |
| October 14, 1969 | November 4, 1933 | November 18, 1979 |
| October 15, 1984 | November 5, 1947 | November 18, 1941 |
| October 20, 1996 | November 5, 1940 | November 19, 1992 |
| October 20, 1949 | November 6, 1986 | November 19, 1934 |
| October 21, 1961 | November 6, 1945 | November 20, 1990 |
| October 22, 1995 | November 8, 1983 | November 22, 1993 |
| October 22, 1935 | November 9, 1985 | November 23, 1980 |
| October 24, 1975 | November 10, 1964 | November 30, 1967 |
| October 24, 1970 | November 10, 1938 | November 30, 1954 |
| October 24, 1956 | November 11, 1955 | December 4, 1976 |
| October 26, 1989 | November 11, 1931 | December 6, 1932 |
| October 27, 1991 | November 12, 1951 | December 7, 1974 |
| October 27, 1982 | November 13, 1944 | December 23, 1937 |
| October 27, 1929 | November 13, 1930 | December 25, 1943 |
| October 28, 1972 | November 14, 1988 | December 25, 1939 |
| October 29, 1981 | November 14, 1958 |  |
| October 31, 1977 | November 14, 1950 |  |
| November 1, 1946 | November 15, 1963 |  |
| November 1, 1936 | November 15, 1960 |  |
| November 2, 1994 | November 15, 1952 |  |
| Average Date of First Measurable Snowfall in SLC is November 6 |  |  |
| 70 Years of Data |  |  |
| 42 Different Dates |  |  |

## SLC FIRST MEASURABLE SNOW

1928-1997


TABLE 46
GREATEST SNOWFALL (INCLUDING ICE PELLETS) IN ANY 24 HOURS AND GREATEST DEPTH OF SNOW ON THE GROUND

1928-1997

| Month | Greatest Snowfall in any 24 hour period |  |  | \#Greatest Depth of snow on ground |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount | Days | Year | Amount | Days | Year |
| January | $\begin{aligned} & 10.7^{\prime \prime} \\ & 9.7^{\prime \prime} \\ & 9.7^{\prime \prime} \\ & 9.0^{\prime \prime} \\ & 8.5^{\prime \prime} \end{aligned}$ | $\begin{gathered} 28-29 \\ 20 \\ 2-3 \\ 6-7 \\ 14 \end{gathered}$ | $\begin{aligned} & 1980 \\ & 1962 \\ & 1993 \\ & 1967 \\ & 1953 \end{aligned}$ | $\begin{aligned} & 25^{\prime \prime} \\ & 23^{\prime \prime} \\ & 17^{\prime \prime} \\ & 13^{\prime \prime} \\ & 12^{\prime \prime} \end{aligned}$ | $\begin{gathered} 12 \\ 23-24 \\ 31 \\ 7 \\ 29-30 \end{gathered}$ | $\begin{aligned} & 1993 \\ & 1949 \\ & 1937 \\ & 1967 \\ & 1980 \end{aligned}$ |
| February | $\begin{aligned} & 11.9^{\prime \prime} \\ & 9.9^{\prime \prime} \\ & 8.8^{\prime \prime} \\ & 8.7^{\prime \prime} \\ & 8.6^{\prime \prime} \end{aligned}$ | $\begin{gathered} 1-2 \\ 22 \\ 10-11 \\ 14-15 \\ 4-5 \end{gathered}$ | 1989 <br> 1994 <br> 1984 <br> 1944 <br> 1974 | $\begin{aligned} & 17^{\prime \prime} \\ & 15^{\prime \prime} \\ & 13^{\prime \prime} \\ & 11^{\prime \prime} \end{aligned}$ | $\begin{gathered} 1-2 \\ 1 \\ 2,4 \\ 3 \end{gathered}$ | $\begin{gathered} 1949 \\ 1937 \\ 1989+ \\ 1936+ \end{gathered}$ |
| March | $\begin{aligned} & 15.4^{\prime \prime} \\ & 13.9^{\prime \prime} \\ & 13.8^{\prime \prime} \\ & 11.8^{\prime \prime} \end{aligned}$ | $\begin{gathered} 13-14 \\ 1-2 \\ 10-11 \\ 21-22 \end{gathered}$ | $\begin{aligned} & 1944 \\ & 1966 \\ & 1952 \\ & 1964 \end{aligned}$ | $\begin{aligned} & 14^{\prime \prime} \\ & 11^{\prime \prime} \\ & 9^{\prime \prime} \\ & 8^{\prime \prime} \end{aligned}$ | $\begin{gathered} 2 \\ 2 \\ 10 \\ 11-12 \end{gathered}$ | $\begin{gathered} 1977 \\ 1966+ \\ 1962+ \\ 1990+ \end{gathered}$ |
| April | $\begin{gathered} 16.2^{\prime \prime} \\ 11.1^{\prime \prime} \\ 10.7^{\prime \prime} \\ 9.7^{\prime \prime} \end{gathered}$ | $\begin{gathered} 9-10 \\ 22-23 \\ 25-26 \\ 27-28 \end{gathered}$ | $\begin{gathered} 1974 \\ 1958 \\ 1984+ \\ 1970 \end{gathered}$ | $\begin{gathered} 12^{\prime \prime} \\ 10^{\prime \prime} \\ 9^{\prime \prime} \\ 8^{\prime \prime} \end{gathered}$ | $\begin{gathered} 10 \\ 23 \\ 2 \\ 28 \end{gathered}$ | $\begin{aligned} & 1974 \\ & 1958 \\ & 1955 \\ & 1970 \end{aligned}$ |
| May | $\begin{aligned} & 6.4^{n \prime} \\ & 5.3^{\prime \prime} \\ & 5.0^{\prime \prime} \\ & 4.9^{\prime \prime} \end{aligned}$ | $\begin{gathered} 4-5 \\ 5 \\ 11 \\ 2 \end{gathered}$ | $\begin{aligned} & 1975 \\ & 1965 \\ & 1983 \\ & 1964 \end{aligned}$ | $\begin{aligned} & 5^{\prime \prime} \\ & 4^{\prime \prime} \\ & 3^{\prime \prime} \\ & 2^{\prime \prime} \end{aligned}$ | $\begin{gathered} 2 \\ 5 \\ 4-5 \\ 11 \end{gathered}$ | $\begin{gathered} 1964 \\ 1978 \\ 1975 \\ 1983+ \end{gathered}$ |
| September | $\begin{aligned} & 4.0^{\prime \prime} \\ & 2.2^{\prime \prime} \\ & 1.0^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 30 \\ & 17 \\ & 18 \end{aligned}$ | $\begin{aligned} & 1971 \\ & 1965 \\ & 1978 \end{aligned}$ | $\begin{aligned} & 4^{n} \\ & 1^{n} \end{aligned}$ | $\begin{aligned} & 30 \\ & 17 \end{aligned}$ | $\begin{aligned} & 1971 \\ & 1965 \end{aligned}$ |
| October | $\begin{gathered} 18.4^{\prime \prime} \\ 8.5^{\prime \prime} \\ 6.7^{\prime \prime} \\ 6.3^{\prime \prime} \end{gathered}$ | $\begin{gathered} 17-18 \\ 31 \\ 31-1 \\ 28 \end{gathered}$ | $\begin{aligned} & 1984 \\ & 1971 \\ & 1956 \\ & 1961 \end{aligned}$ | $\begin{aligned} & 14^{\prime \prime} \\ & 8^{\prime \prime} \\ & 6^{\prime \prime} \\ & 4^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 18 \\ & 31 \\ & 24 \\ & 29 \end{aligned}$ | $\begin{aligned} & 1984 \\ & 1972 \\ & 1956 \\ & 1972 \end{aligned}$ |
| November | $\begin{aligned} & 11.0^{n} \\ & 9.9^{\prime \prime} \\ & 9.3^{\prime \prime} \\ & 8.8^{\prime \prime} \\ & 7.5^{\prime \prime} \\ & 7.0^{\prime \prime} \end{aligned}$ | $\begin{gathered} 17 \\ 14-15 \\ 12-13 \\ 18-19 \\ 19-20 \\ 20 \end{gathered}$ | $\begin{aligned} & 1930 \\ & 1958 \\ & 1994 \\ & 1985 \\ & 1992 \\ & 1946 \end{aligned}$ | $\begin{gathered} 11^{\prime \prime} \\ 10^{n} \\ 9^{\prime \prime} \\ 8^{n} \\ 7^{\prime \prime} \end{gathered}$ | $\begin{gathered} 19 \\ 15-16 \\ 23-24 \\ 15 \\ 26-27 \end{gathered}$ | $\begin{gathered} 1985 \\ 1958 \\ 1992 \\ 1955 \\ 1973+ \end{gathered}$ |
| December | $\begin{aligned} & 18.1^{\prime \prime} \\ & 13.4^{\prime \prime} \\ & 10.7^{\prime \prime} \\ & 10.5^{\prime \prime} \end{aligned}$ | $\begin{gathered} 28-29 \\ 16-17 \\ 7-8 \\ 27-28 \end{gathered}$ | $\begin{aligned} & 1972 \\ & 1970 \\ & 1985 \\ & 1948 \end{aligned}$ | $\begin{aligned} & 16^{\prime \prime} \\ & 15^{\prime \prime} \\ & 14^{\prime \prime} \\ & 13^{\prime \prime} \end{aligned}$ | $\begin{gathered} 28 \\ 29 \\ 25 \\ 25-28 \end{gathered}$ | $\begin{gathered} 1948 \\ 1972 \\ 1932 \\ 1983+ \end{gathered}$ |
| Greatest | 18.4" | Octobe | , 1984 | 25" | Janu | 1993 |

+ Also occurred in earlier years.
\# Greatest snow depth in a given snow episode.

TABLE 47
EARLIEST AND LATEST DATE AND AMOUNT OF MEASURABLE SNOWFALL ( 0.1 INCH OR MORE) AND THE AVERAGE DATE OF THE FIRST MEASURABLE SNOWFALL 1928-1997

| Earliest Fall Date and amount of Snowfall |  | Latest Fall Date and amount of Snowfall |  | Latest Spring Date and amount of Snowfall |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Amount (Inches) | Date | Amount (Inches) | Date | Amount (Inches) |
| September 17, 1965 | 2.2 " | December 25, 1943* | $5.9{ }^{\text {n }}$ | May 18, 1977 | 0.5" |
| September 18, 1978 | 1.0" | December 25, 1939 | 0.5" | May 18, 1960 | 1.0" |
| September 30, 1971 | 4.0 " | December 23, 1937 | $1.0^{\prime \prime}$ | May 17, 1971 | 1.4" |
| October 11, 1997 | 0.3" | December 9, 1949 | 3.6 " | May 15, 1978 | $4.4{ }^{\text {n }}$ |
| October 13, 1966 | 3.6 " | December 7, 1974+ | $2.4{ }^{\prime \prime}$ | May 11, 1983 | 5.0" |
| October 14, 1969 | $0.1{ }^{\prime \prime}$ | December 4, 1976 | 0.3" | May 11, 1967 | $1.0^{\prime \prime}$ |
| October 15, 1984 | 0.2" |  |  | May 10, 1953 | 0.1 " |
| October 20, 1996 | 2.5" |  |  | May 8, 1993 | 1.0 " |
| October 20, 1949 | 1.0" |  |  | May 8, 1930 | $1.0^{\prime \prime}$ |
| October 22, 1995 | 0.5" |  |  |  |  |

Average Date of first snowfall $\qquad$ November 6th (1928-1997)
Average Date of last snowfall. April 18th.

TABLE 48
GREATEST NUMBER OF CONSECUTIVE DAYS WITH 1.0 INCH OR MORE OF SNOW ON THE GROUND 1928-1997

| Days | Period |
| :---: | :---: |
| 86 | November 17, 1930 - February 11, 1931 |
| 83 | December 20, 1983-March 11, 1984 |
| 82 | December 9, 1932 - February 28, 1933 |
| 77 | December 14, 1948 - February 28, 1949 |
| 66 | December 22, 1988 - February 25, 1989 |
| 61 | January 9, 1985 - March 10, 1985 |
| 57 | December 13, 1990 - February 7, 1991 |
| 54 | December 28, 1972 - February 19, 1973 |
| 54 | January 3, 1955 - February 25, 1955 |
| 52 | December 30, 1992 - February 19, 1993 |

## TABLE 49

AVERAGE, MAXIMUM AND MINIMUM NUMBER OF DAYS WITH MEASURABLE SNOWFALL BY SEASON

1928-1929 through 1996-97

| Maximum Number of Days |  | Average Number of Days | Minimum Number of Days |  |
| :---: | :---: | :---: | :---: | :---: |
| Days | Season |  | Days | Season |
| 63 | 1983-1984 | 36 | 9 | 1939-1940 |
| 56 | 1992-1993 |  | 11 | 1933-1934 |
| 52 | 1973-1974 |  | 18 | 1946-1947 |
| 51 | 1963-1964 |  | 21 | 1958-1959 |
| 50 | 1978-1979+ |  | 22 | 1962-1963+ |
| 48 | 1984-1985 + |  | 23 | 1993-94+ |

TABLE 50
MAXIMUM SNOWFALL FROM ANY SINGLE STORM\#
1928-1997

| Amount in Inches | Duration of snowfall |  |
| :---: | :---: | :---: |
|  | Began | Ended |
| 23.3" | 1:10 pm January 6, 1993 | 11:05 am January 10, 1993 |
| 21.6 " | March 12, 1944 | March 15, 1944 |
| $19.8{ }^{\text {²}}$ | 1:30 pm January 24, 1996 | 11:18 pm January 25, 1996 |
| 18.4" | 5:04 am October 17, 1984 | 10:35 am October 18, 1984 |
| 18.1" | 1:03 pm December 28, 1972 | 1:30 pm December 29, 1972 |
| 17.4" | 5:43 am March 1, 1977 | 3:35 am March 3, 1977 |
| $17.4{ }^{\prime \prime}$ | 6:02 pm April 9, 1974 | 8:20 pm April 10, 1974 |

\#Storm total not limited to 24 hours.

TABLE 51
AVERAGE, MAXIMUM AND MINIMUM NUMBER OF DAYS WITH MEASURABLE SNOWFALL 1928-1997

| Monthly <br> Average | Monthly Maximum |  | Monthly Minimum |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Days | Year | Days | Year |
| September Average * | 1 | 1978+ | 0 | $1995+$ |
| October Average * | $\begin{aligned} & 6 \\ & 4 \\ & 3 \end{aligned}$ | $\begin{gathered} 1971 \\ 1984 \\ 1996+ \end{gathered}$ | 0 | 1994+ |
| November Average 4 | $\begin{aligned} & 13 \\ & 11 \\ & 10 \\ & 9 \\ & 8 \\ & 7 \end{aligned}$ | $\begin{gathered} 1994 \\ 1985 \\ 1975+ \\ 1988+ \\ 1978+ \\ 1992+ \end{gathered}$ | $\begin{aligned} & 0 \\ & 1 \end{aligned}$ | $\begin{aligned} & 1976+ \\ & 1995+ \end{aligned}$ |
| December Average 8 | $\begin{aligned} & 21 \\ & 15 \\ & 14 \\ & 13 \\ & 12 \end{aligned}$ | $\begin{gathered} 1983 \\ 1951+ \\ 1970+ \\ 1973+ \\ 1969+ \end{gathered}$ | $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | $\begin{aligned} & 1962+ \\ & 1995+ \end{aligned}$ |
| January Average 9 | $\begin{aligned} & 19 \\ & 17 \\ & 16 \\ & 15 \\ & 14 \end{aligned}$ | $\begin{aligned} & 1993 \\ & 1979 \\ & 1937 \\ & 1949 \\ & 1932 \end{aligned}$ | $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \end{aligned}$ | $\begin{gathered} 1961 \\ 1953+ \\ 1940+ \\ 1994+ \end{gathered}$ |
| February Average 6 | $\begin{aligned} & 15 \\ & 12 \\ & 11 \\ & 10 \end{aligned}$ | $\begin{gathered} 1993+ \\ 1960+ \\ 1985 \\ 1984 \end{gathered}$ | $\begin{aligned} & 0 \\ & 1 \\ & 2 \end{aligned}$ | $\begin{gathered} 1953 \\ 1973+ \\ 1991+ \end{gathered}$ |
| March Average 5 | $\begin{aligned} & 17 \\ & 15 \\ & 13 \\ & 12 \\ & 11 \end{aligned}$ | $\begin{aligned} & 1977 \\ & 1964 \\ & 1952 \\ & 1944 \\ & 1938 \end{aligned}$ | $\begin{aligned} & 0 \\ & 1 \\ & 2 \end{aligned}$ | $\begin{aligned} & 1993+ \\ & 1994+ \\ & 1991+ \end{aligned}$ |
| April Average 3 | $\begin{gathered} 11 \\ 8 \\ 7 \\ 6 \end{gathered}$ | $\begin{gathered} 1970 \\ 1984 \\ 1991+ \\ 1967 \end{gathered}$ | $\begin{aligned} & 0 \\ & 1 \end{aligned}$ | $\begin{aligned} & 1989+ \\ & 1994+ \end{aligned}$ |
| May Average * | $\begin{aligned} & 3 \\ & 2 \end{aligned}$ | $\begin{gathered} 1975 \\ 1993+ \end{gathered}$ | 0 | $1995+$ |

[^5]TABLE 52
AVERAGE AND MAXIMUM NUMBER OF DAYS WITH SNOWFALL (INCLUDING ICE PELLETS) OF 1 INCH OR MORE AND 3 INCHES OR MORE

| Month | Snowfall 1 inch or more 1928-1997 |  |  | Snowfall 3 inches or more 1951-1997 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Days | Maximum Number |  | Average Days | Maximum Number |  |
|  |  | Days | Year |  | Days | Year |
| September | * | 1 | $1978+$ | * | 1 | 1971 |
| October | * | 3 2 1 | $\begin{aligned} & 1996+ \\ & 1991+ \\ & 1973+ \end{aligned}$ | * | $\begin{aligned} & 2 \\ & 1 \end{aligned}$ | $\begin{aligned} & 1984+ \\ & 1972+ \end{aligned}$ |
| November | 2 | $\begin{gathered} 10 \\ 8 \\ 7 \\ 6 \end{gathered}$ | $\begin{array}{r} 1994 \\ 1985 \\ 1931 \\ 1975+ \end{array}$ | 1 | $\begin{aligned} & 5 \\ & 3 \\ & 2 \end{aligned}$ | $\begin{aligned} & 1994+ \\ & 1978+ \\ & 1992+ \end{aligned}$ |
| December | 4 | $\begin{aligned} & 15 \\ & 9 \\ & 8 \end{aligned}$ | $\begin{gathered} 1983 \\ 1932 \\ 1972+ \end{gathered}$ | 2 | $\begin{aligned} & 5 \\ & 4 \\ & 3 \end{aligned}$ | $\begin{aligned} & 1972+ \\ & 1982+ \\ & 1970+ \end{aligned}$ |
| January | 4 | $\begin{gathered} 11 \\ 9 \\ 7 \end{gathered}$ | $\begin{gathered} 1993 \\ 1949+ \\ 1967+ \end{gathered}$ | 2 | $\begin{aligned} & 5 \\ & 4 \\ & 3 \end{aligned}$ | $\begin{gathered} 1993+ \\ 1965 \\ 1980+ \end{gathered}$ |
| February | 3 | 8 7 6 | $\begin{gathered} 1989+ \\ 1976 \\ 1979+ \end{gathered}$ | 1 | 4 3 2 | $\begin{gathered} 1969 \\ 1995 \\ 1993+ \end{gathered}$ |
| March | 3 | $\begin{gathered} 10 \\ 9 \\ 8 \end{gathered}$ | $\begin{gathered} 1964 \\ 1977+ \\ 1962 \end{gathered}$ | 1 | 5 4 3 | $\begin{gathered} 1977 \\ 1952 \\ 1980+ \end{gathered}$ |
| April | 1 | $\begin{aligned} & 6 \\ & 5 \\ & 4 \end{aligned}$ | $\begin{gathered} 1974 \\ 1984+ \\ 1991+ \end{gathered}$ | 1 | $\begin{aligned} & 4 \\ & 3 \\ & 2 \end{aligned}$ | $\begin{aligned} & 1984+ \\ & 1974+ \\ & 1995+ \end{aligned}$ |
| May | * | $\begin{aligned} & 3 \\ & 1 \end{aligned}$ | $\begin{gathered} 1975 \\ 1993+ \end{gathered}$ | * | 1 | $1983+$ |
| Season | 18 | $\begin{aligned} & 32 \\ & 27 \\ & 26 \\ & 25 \\ & 24 \end{aligned}$ | $\begin{gathered} 1983-84+ \\ 1975-76 \\ 1992-93+ \\ 1932-33 \\ 1994-95 \end{gathered}$ | 8 | $\begin{aligned} & 15 \\ & 14 \\ & 13 \\ & 12 \\ & 11 \end{aligned}$ | $\begin{gathered} 1951-52 \\ 1973-74 \\ 1994-95 \\ 1968-69+ \\ 1992-93 \end{gathered}$ |

* Average is less than $1 / 2$ day.
+ Also occurred in earlier years.
\# Snowfall season extends from July 1 through June 30.

TABLE 53
AVERAGE AND GREATEST NUMBER OF DAYS WITH THUNDERSTORMS AND HAIL 1928-1997

| Month | Thunderstorms |  |  | Hail |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Days | Greatest Days | Year | Average Days | Greatest Days | Year |
| January | 0 | 2 | 1987+ | 0 | 2 | 1969+ |
| February | 0 | 4 | 1936 | 0 | 2 | 1950 |
| March | 1 | 5 | 1958 | 0 | 2 | 1961 |
| April | 2 | 7 | 1930 | 1 | 3 | $1973+$ |
| May | 5 | 13 | 1980 | 1 | 3 | 1980+ |
| June | 5 | 19 | 1967 | 1 | 4 | 1944 |
| July | 7 | 14 | 1985+ | 0 | 2 | 1969 |
| August | 8 | 16 | 1952+ | 0 | 2 | $1991+$ |
| September | 4 | 10 | 1937 | 0 | 2 | 1973 |
| October | 2 | 6 | 1983+ | 0 | 2 | 1945 |
| November | 0 | 3 | 1971+ | 0 | 1 | 1983+ |
| December | 0 | 3 | 1964 | 0 | 3 | 1964 |
| Annual | 34 | 57 | 1983+ | 3 | 13 | 1945 |

+ Also occurred in earlier years.


## TABLE 54

AVERAGE RELATIVE HUMIDITY* BY TIME PERIODS
1951-1997

| Month | 5 am MST | 11 am MST | 5 pm MST | 11 pm MST |
| :--- | :---: | :---: | :---: | :---: |
| January | $79 \%$ | $71 \%$ | $69 \%$ | $79 \%$ |
| February | $78 \%$ | $64 \%$ | $59 \%$ | $77 \%$ |
| March | $71 \%$ | $52 \%$ | $47 \%$ | $68 \%$ |
| April | $67 \%$ | $44 \%$ | $39 \%$ | $61 \%$ |
| May | $65 \%$ | $39 \%$ | $33 \%$ | $58 \%$ |
| June | $59 \%$ | $31 \%$ | $26 \%$ | $49 \%$ |
| July | $52 \%$ | $27 \%$ | $22 \%$ | $42 \%$ |
| August | $54 \%$ | $30 \%$ | $23 \%$ | $45 \%$ |
| September | $61 \%$ | $35 \%$ | $29 \%$ | $54 \%$ |
| October | $69 \%$ | $43 \%$ | $41 \%$ | $66 \%$ |
| November | $75 \%$ | $58 \%$ | $59 \%$ | $74 \%$ |
| December | $79 \%$ | $70 \%$ | $71 \%$ | $79 \%$ |
| Annual | $67 \%$ | $47 \%$ | $43 \%$ | $63 \%$ |

*Relative humidity is the most common form of measuring water vapor in the air. Expressed as a percentage, it denotes the amount of moisture in the air, compared to the maximum amount of moisture the air can hold at a given temperature.
A relative humidity of $100 \%$ indicates a saturated air mass.

TABLE 55
SUNSHINE, SKY COVER, AND HEAVY FOG

|  |  | Sky Cover (Sunrise- Sunset) |  |  |  | Heavy Fog |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Days |  |  |  |  |  |
| Month | Avg. Pct of <br> Possible <br> Sunshine | Avg Amt of Sky Cover (tenths) | Clear | Partly Cloudy | Cloudy | Average Number of Days | Greatest <br> Number of Days | Year |
| January | 45\% | 7.3 | 5 | 6 | 19 | 5 | 21 | 1931 |
| February | 54\% | 7.1 | 5 | 7 | 16 | 2 | 13 | 1985 |
| March | 63\% | 6.7 | 7 | 8 | 16 | 0 | 5 | 1984 |
| April | 68\% | 6.4 | 7 | 9 | 14 | 0 | 2 | 1958 |
| May | 73\% | 5.7 | 9 | 10 | 12 | 0 | 2 | 1964 |
| June | 80\% | 4.3 | 14 | 10 | 6 | 0 | 0 | --- |
| July | 83\% | 3.6 | 17 | 10 | 4 | 0 | 0 | ---- |
| August | 82\% | 3.7 | 16 | 11 | 5 | 0 | 0 | ---- |
| September | 82\% | 3.7 | 17 | 8 | 5 | 0 | 0 | ---- |
| October | 72\% | 4.7 | 14 | 8 | 9 | 0 | 1 | 1971+ |
| November | 53\% | 6.3 | 8 | 7 | 15 | 1 | 4 | 1968+ |
| December | 43\% | 7.2 | 6 | 7 | 18 | 4 | 14 | 1980 |
| Annual | 67\% | 5.6 | 125 | 101 | 139 | 12 | 37 | 1931 |

## Period of Record:

Average percent of possible sunshine....
January through June: 1936-1939; 1942-1995.
July through November: 1935-1938; 1942-1995.
December: 1935-1938; 1941-1995.
Average amount of sky cover (sunrise to sunset): 1936-1995.
Average number of days of clear, partly cloudy, and cloudy and average number of days with heavy fog: 1929-1995. Greatest number of days with heavy fog: 1928-1995.

Sky cover is expressed in a range from 0 (for no clouds) to 10 (for sky completely covered by clouds).
Clear. $\qquad$ ... $0 / 10$ to $3 / 10$ sky cover.
Partly cloudy....4/10 to 7/10 sky cover.
Cloudy............ $8 / 10$ to $10 / 10$ sky cover.
Heavy fog is defined as fog reducing visibility to $1 / 4$ mile or less.

+ Also occurred in earlier years.
Total sunshine available at Salt Lake City is 267,341 minutes per year.

TABLE 56a
AVERAGE, MAXIMUM, AND MINIMUM NUMBER OF DAYS IN MONTH WITH CLEAR, PARTLY CLOUDY, AND CLOUDY SKIES

JANUARY - JUNE
1928-1997


+ Also occurred in earlier years.
Clear skies defined as $0 / 10$ to $3 / 10$ sky cover.
Partly cloudy skies defined as $4 / 10$ to $7 / 10$ sky cover.
Cloudy skies defined as $8 / 10$ to $10 / 10$ sky cover.

| CLEAR |  |  |  |  |  | PARTLY CLOUDY |  |  |  |  | CLOUDY |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MONTH | Average | Maximum/Year |  | Minimum/Year |  | Average | Maximum/Year |  | Minimum/Year |  | Average | Maximum/Year |  | Minimum/Year |  |
| JUL | 17 | 25 | 1978 | 9 | 1987+ | 10 | 19 | 1960 | 3 | 1955 | 4 | 10 | 1987 | 0 | 1956+ |
|  |  | 24 | 1955+ |  | 1966+ |  | $17$ | 1966+ | 4 | 1978+ |  | 9. | 1985+ | 1 | 1969+ |
|  |  | 23 | 1942+ | 11 | 1937 |  | 16 | 1984 | 5 | 1993+ |  | 7 | 1986+ |  |  |
| AUG | 16 | 26 | 1944 | 3 | 1930 | 11 |  | 1982 | 4 | $1933+$ | 5 | 13 | 1930 | 0 | 1985+ |
|  |  | 25 | 1933+ | 4 | 1929 |  | 18 | 1929 | 5 | $1978+$ |  | 11 | 1968 | 1 | 1974+ |
|  |  | 23 | 1993+ | 6 | 1982 |  | 17 | $1945+$ | 6 | $1993+$ |  | 10 | 1957 | 2 | 1995+ |
| SEP | 17. | 27 | 1933 | 3 | 1940 | 8 |  | 1940 | 2 | 1933 | 5 | 15 | 1959 | 0 | 1962 |
|  |  | 26 | 1962+ | 7 | 1986 |  | 15 | 1976 | 3 | 1979+ |  | 14 | 1982 | 1 | 1974+ |
|  |  | 25 | 1979+ | 8 | 1982 |  |  | 1978 | 4 | $1975+$ |  | 13 | 1961 |  |  |
| OCT | 14 | 24 | 1952 | 5 | 1957 | 8 |  | 1963+ | 2 | 1942 | 9 | 17 | 1993 | 1 | 1929 |
|  |  | 23 | 1933 | 7 | 1993+ |  | 12 | 1995+ | 3 | 1994+ |  | 16 | 1972 | 2 | 1952 |
|  |  | 21 | 1954 | 8 | 1982+ |  | 11 | 1957+ | 4 | 1991+ |  | 15 | 1994+ | 3 | 1965+ |
| NOV | 8 | 22 | 1936 | 0 | 1988 | 7 | 13 | 1932 | 2 | 1944 | 15 | 24 | 1970 | 3 | 1929 |
|  |  | 19 | 1939+ | 2 | 1983 |  | 12 | 1967 | 3 | 1994+ |  | 23 | 1994+ | 4 | 1936 |
|  |  |  |  | 3 | 1985+ |  | 11 | 1969+ | 4 | 1979+ |  | 22 | 1983 | 5 | 1954+ |
| DEC | 6 | 15 | 1960 | 0 | 1950 | 7 |  | 1939 | 1 | 1985+ | 18 | 29 | 1983 | 9 | 1939 |
|  |  | 14 | 1959 | 1 | 1983+ |  | 12 | 1940+ | 3 | 1963+ |  | 28 | 1950 | 10 | 1960 |
|  |  | 13 | 1956+ |  |  |  | 11 | 1970 | 4 | 1982+ |  | 27 | 1985 | 11 | $1953+$ |
| ANNUAL | 125 | 188 | 1933 | 88 | 1967 | 101 | $\begin{aligned} & 16 \\ & 3 \end{aligned}$ | 1930 | 70 | 1979 | 139 | 182 | 1983 | 87 | 1933 |
|  |  | 162 | 1929 | 89 | 1981 |  | $\begin{aligned} & 13 \\ & 4 \end{aligned}$ | 1941 | 78 | 1964 |  | 172 | 1981 | 91 | 1939 |
|  |  | 156 | 1952 | 94 | 1982 |  | 11 7 | 1967 | 83 | 1978+ |  | 163 | 1978+ | 96 | 1929 |

+ Also occurred in earlier years.
Cloudy skies defined as $8 / 10$ to $10 / 10$ sky cover. 80

Partly cloudy skies defined as $4 / 10$ to $7 / 10$ sky cover.
Clear skies defined as $0 / 10$ to $3 / 10$ sky cover.

TABLE 57
AVERAGE WIND SPEED, PREVAILING DIRECTION, FASTEST MILE, AND PEAK GUST

|  | *February 1930- December 1997 |  |
| :--- | :---: | :--- |
|  | Average Speed MPH | Prevailing Direction (1) |
|  | 7.5 mph | SSE |
| February | 8.2 mph | SE |
| March | 9.3 mph | SSE |
| April | 9.6 mph | SE |
| May | 9.5 mph | SE |
| June | 9.4 mph | SSE |
| July | 9.5 mph | SSE |
| August | 9.7 mph | SSE |
| September | 9.1 mph | SE |
| October | 8.5 mph | SE |
| November | 8.0 mph | SSE |
| December | 7.5 mph | SSE |
| Annual | 8.8 mph | SSE |


|  | *July 1935 - December 1997 |  |  |  | *August 1954 - December 1997 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fastest Mile (2) |  |  |  | Peak Gust (3) |  |  |  |
|  | Speed MPH | Direction | Day | Year | Speed <br> MPH | Direction | Day | Year |
| January | 59(3) | NW | 10 | 1980 | 69(3) | NW | 10 | 1980 |
| February | 56(3) | SE | 18 | 1954 | 54(3) | S | 1 | 1989+ |
| March | 71(3) | NW | 10 | 1954 | 62(3) | S | 2 | 1974 |
| April | 57 | NW | 11 | 1964 | 69 | W | 22 | 1961 |
| May | 57 | NW | 21 | 1953 | 69(3) | SW | 28 | 1989 |
| June | 63 | W | 3 | 1963 | 94 | NW | 3 | 1963 |
| July | 51 | NW | 25 | 1986 | 74 | NW | 18 | 1981 |
| August | 58 | SW | 6 | 1946 | 74 | NW | 13 | 1978 |
| September | 61(3) | W | 3 | 1952 | 71(3) | NW | 5 | 1972 |
| October | 67(3) | NW | 27 | 1950 | 71(3) | NW | 5 | 1967 |
| November | 63(3) | NW | 11 | 1937 | 59(3) | NW | 4 | 1968 |
| December | 54 | S | 25 | 1955 | 60 | N | 15 | 1981 |
| Annual | 71(3) | NW | March 10 | 1954 | 94 | NW | June 3 | 1963 |

+ Also occurred in earlier years. *Period of Record
(1) The prevailing direction is the most frequent observed direction from which the wind blows during a specific time period.
(2) Fastest mile is the fastest one minute observed wind speed taken from a multiple register that contains a time record of the passing of each mile of wind.
(3) Wind gusts are reported when rapid fluctuations in wind speed result in a variation of 10 kts ( 11 mph ) or more between peaks and lulls. The duration of each gust is usually less than 20 seconds.

An official wind gust must be recorded on an instantaneous wind-speed recorder. This type of instrument was not available at Salt Lake International Airport until August 15, 1954. Hence, the periods of record for fastest mile and peak gust differ, and should be taken into account when using this table. (Note that the record fastest mile for March is much higher than the record peak gust. This is because an actual measurement of the gust on an instantaneous wind-speed recorder was not available at that time.)

TABLE 58
PRESSURE RECORDS
SEA LEVEL PRESSURE
1928-1997

| Month | Highest | Day | Year | Lowest | Day | Year |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| January | 31.01 | 1 | 1979 | 29.04 | 12 | 1932 |
| February | 30.83 | 8 | $1989+$ | 29.08 | 6 | 1937 |
| March | 30.78 | 11 | 1951 | 29.07 | 2 | 1989 |
| April | 30.58 | 6 | 1939 | 29.14 | 22 | $1960+$ |
| May | 30.50 | 15 | 1970 | 29.11 | 29 | 1988 |
| June | 30.39 | 15 | 1981 | 29.17 | 22 | 1944 |
| July | 30.36 | 12 | 1989 | 29.30 | 4 | 1986 |
| August | 30.33 | 31 | 1987 | 29.39 | 31 | 1944 |
| September | 30.52 | 25 | 1970 | 29.33 | 4 | 1970 |
| October | 30.67 | 31 | 1981 | 29.23 | 29 | 1935 |
| November | 30.89 | 23 | 1938 | 29.02 | 30 | 1982 |
| December | 31.09 | 8,9 | 1956 | 29.01 | 1 | 1982 |
| Extremes | 31.09 | December | 1956 | 29.01 | December | 1982 |

STATION PRESSURE
1928-1997

| Month | Average | Highest | Day | Year | Lowest | Day | Year |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January | 25.84 | 26.39 | 28 | 1962 | 24.85 | 12 | 1932 |
| February | 25.79 | 26.38 | 12 | 1943 | 24.92 | 6 | 1937 |
| March | 25.68 | 26.30 | 11 | 1951 | 24.99 | 10 | $1954+$ |
| April | 25.68 | 26.19 | 6 | 1939 | 25.03 | 11 | 1935 |
| May | 25.66 | 26.14 | 15 | 1970 | 25.16 | 23 | 1953 |
| June | 25.69 | 26.04 | 22 | 1964 | 25.11 | 8 | 1944 |
| July | 25.73 | 26.07 | 8 | 1959 | 25.30 | 8 | 1954 |
| August | 25.74 | 26.01 | 20 | 1961 | 25.32 | 29 | 1932 |
| September | 25.76 | 26.16 | 25 | 1970 | 25.25 | 2 | 1936 |
| October | 25.79 | 26.26 | 19 | 1964 | 25.12 | 29 | 1935 |
| November | 25.79 | 26.38 | 23 | 1938 | 25.10 | 15 | 1952 |
| December | 25.83 | 26.43 | 8,9 | 1956 | 24.98 | 30 | 1951 |
| Extremes | 25.75 | 26.43 | December | 1956 | 24.85 | January | 1932 |

+Also occurred in earlier years.
*Highest and lowest station pressure tabulations discontinued January 1971. The average station pressure values in this table have been continued through the present.

TABLE 58a
AVERAGE MONTHLY STATION PRESSURE REDUCED TO SEA LEVEL

| January | 30.16 | May | 29.96 | September | 30.07 |
| :--- | :--- | :--- | :---: | :--- | :--- |
| February | 30.11 | June | 29.99 | October | 30.11 |
| March | 29.98 | July | 30.04 | November | 30.11 |
| April | 29.98 | August | 30.05 | December | 30.15 |

TABLE 59
NORMAL, HIGHEST AND LOWEST HEATING DEGREE DAYS BY MONTHS AND YEAR OF OCCURRENCE (BASE 65 DEGREES)

1928-1997

| Month | Normal | Highest | Year | Lowest | Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| July | 0 | 23 | 1938 | 0 | $1995+$ |
| August | 0 | 49 | 1968 | 0 | $1995+$ |
| September | 108 | 239 | 1965 | 7 | 1979 |
| October | 373 | 573 | 1946 | 158 | 1988 |
| November | 726 | 995 | 1930 | 559 | 1995 |
| December | 1094 | 1459 | 1932 | 835 | 1977 |
| January | 1150 | 1658 | 1949 | 784 | 1953 |
| February | 865 | 1363 | 1933 | 637 | 1934 |
| March | 719 | 1016 | 1964 | 484 | 1934 |
| April | 464 | 619 | 1970 | 268 | 1934 |
| May | 215 | 415 | 1933 | 56 | 1934 |
| June | 51 | 185 | 1945 | 0 | 1977 |
| Annual | 5765 | 6875 | 1932 | 4590 | 1934 |

TABLE 60
NORMAL HIGHEST AND LOWEST COOLING DEGREE DAYS BY MONTHS AND YEAR OF OCCURRENCE (BASE 65 DEGREE) 1928-1997

| Month | Normal | Highest | Year | Lowest | Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| January | 0 | 0 | $\cdots$ | 0 | --- |
| February | 0 | 0 | $\cdots$ | 0 | $\cdots--$ |
| March | 0 | 0 | $\cdots$ | 0 | --- |
| April | 0 | 25 | 1987 | 0 | $1993+$ |
| May | 23 | 181 | 1934 | 0 | 1953 |
| June | 174 | 334 | 1988 | 40 | 1945 |
| July | 400 | 510 | 1960 | 178 | 1993 |
| August | 329 | 489 | 1940 | 185 | 1928 |
| September | 114 | 208 | 1979 | 21 | 1965 |
| October | 7 | 29 | 1963 | 0 | $1994+$ |
| November | 0 | 0 | $\cdots--$ | 0 | --- |
| December | 0 | 0 | -- | 0 | $\cdots$ |
| Annual | 1047 | 1549 | 1994 | 616 | 1965 |

Climatological Normals based on the (1961-1990) period.

+ Also occurred in earlier years.
NOTE: Heating and cooling degree days are used as an indication of fuel and energy consumption. One heating or cooling degree day is given for each degree that the daily mean temperature departs below or above 65 degrees respectively.


## TABLE 61

WARMEST AND COLDEST SUMMER SEASONS (JUNE, JULY, AUGUST) WITH THEIR AVERAGE MEAN TEMPERATURE AND AMOUNT OF PRECIPITATION RECEIVED DURING THE PERIOD 1928-1997

| Warmest |  |  | Climatological Normals for Summer Season |  | Coldest |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Mean <br> Temperature | Precipitation (Inches) |  |  | Year | Mean <br> Temperature | Precipitation (Inches) |
| 1994 | 78.6 | 0.67" | Temperature | Precipitation | 1993 | 68.7 | $2.98{ }^{\prime \prime}$ |
| 1988 | 77.7 | 0.29" | 74.3 | 2.60" | 1928 | 69.5 | $1.31{ }^{\prime \prime}$ |
| 1961 | 77.5 | 1.83" |  |  | 1945 | 69.9 | 7.93" |
| 1996 | 77.2 | 0.52" |  |  | 1965 | 70.7 | 5.45" |
| 1985 | 76.6 | $2.18{ }^{\prime \prime}$ |  |  | 1964 | 70.9 | $3.04{ }^{\prime \prime}$ |
| 1940 | 76.1 | 0.59" |  |  | 1944 | 70.9 | 2.82" |
| 1990 | 75.7 | $1.76{ }^{\prime \prime}$ |  |  | 1932 | 70.9 | 4.58" |
| 1974 | 75.6 | 0.78" |  |  | 1951 | 71.0 | 4.05" |
| 1960 | 75.5 | 0.74" |  |  |  |  |  |

TABLE 62
WARMEST AND COLDEST WINTER SEASONS (DECEMBER, JANUARY, FEBRUARY) WITH THEIR aVERAGE MEAN TEMPERATURE, TOTAL SNOWFALL, AND DAYS WITH SNOW DURING THE PERIOD 1928-1929 TO 1996-1997

| Warmest |  |  |  |  | Coldest |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Mean <br> Temp | Total <br> Snow <br> (Inches) | \#Days <br> with <br> Snow | Total <br> Pcpn <br> (Inches) | Year | Mean <br> Temp | Total <br> Snow <br> (Inches) | \#Days <br> with <br> Snow | Total <br> Pcpn <br> (nches) |  |
| $1977-78$ | 38.0 | $39.3^{\prime \prime}$ | 28 | $5.21^{\prime \prime}$ | $1932-33$ | 19.5 | $66.2^{\prime \prime}$ | 36 | $3.77^{\prime \prime}$ |  |
| $1933-34$ | 37.9 | $13.6^{\prime \prime}$ | 9 | $3.77^{\prime \prime}$ | $1948-49$ | 19.9 | $74.7^{\prime \prime}$ | 36 | $5.58^{\prime \prime}$ |  |
| $1994-95$ | 36.3 | $38.0^{\prime \prime}$ | 22 | $4.32^{\prime \prime}$ | $1930-31$ | 23.5 | $15.0^{\prime \prime}$ | 15 | $1.51^{\prime \prime}$ |  |
| $1937-38$ | 36.3 | $15.9^{\prime \prime}$ | 15 | $2.71^{\prime \prime}$ | $1928-29$ | 23.9 | $24.2^{\prime \prime}$ | 25 | $2.13^{\prime \prime}$ |  |
| $1952-53$ | 36.2 | $25.2^{\prime \prime}$ | 8 | $4.28^{\prime \prime}$ | $1931-32$ | 23.9 | $41.9^{\prime \prime}$ | 31 | $3.09^{\prime \prime}$ |  |
| $1969-70$ | 35.8 | $22.7^{\prime \prime}$ | 20 | $3.87^{\prime \prime}$ | $1963-64$ | 24.0 | $39.1^{\prime \prime}$ | 30 | $2.06^{\prime \prime}$ |  |
| $1958-59$ | 35.4 | $29.9^{\prime \prime}$ | 15 | $3.55^{\prime \prime}$ | $1972-73$ | 24.9 | $59.7^{\prime \prime}$ | 22 | $5.62^{\prime \prime}$ |  |


| Climatological Normals for Winter Season |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Temperature | Snow (Inches) | \#Days with Snow | Precipitation |  |
| 30.5 | $35.7^{\prime \prime}$ | 23 | $3.74^{\prime \prime}$ |  |

Climatological Normals based on (1961-1990) period.

TABLE 63
WARMEST AND COLDEST SPRING SEASONS (MARCH, APRIL, MAY) WITH THEIR AVERAGE MEAN TEMPERATURE AND AMOUNT OF PRECIPITATION RECEIVED DURING THE PERIOD 1928-1997

| Warmest |  |  |  | Climatological Normals for Spring Season |  |  | Coldest |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Mean <br> Temp | Precip (inches) | Snowfall (Inches) |  |  |  | Year | Mean <br> Temp | Precip <br> (Inches) | Snowfall (Inches) |
| 1934 | 57.5 | 0.93" | 2.0 " | Temp | Precip | Snow | 1964 | 44.5 | 7.72" | 40.7" |
| 1992 | 57.3 | 3.93" | $0.6{ }^{\prime \prime}$ | 50.2 | 5.83" | 20.0" | 1933 | 45.5 | 5.69" | 4.7 " |
| 1987 | 53.8 | 4.72" | 5.1 " |  |  |  | 1955 | 46.4 | 3.59" | $25.3{ }^{\prime \prime}$ |
| 1994 | 53.6 | 5.51" | 3.2" |  |  |  | 1942 | 46.5 | $6.03{ }^{\prime \prime}$ | 11.4" |
| 1989 | 53.5 | 4.06 ${ }^{\text {² }}$ | 2.1 " |  |  |  | 1944 | 47.2 | 10.24" | 37.2" |
| 1985 | 53.5 | 5.39" | 8.7" |  |  |  | 1945 | 47.4 | 3.76" | 20.2" |
| 1940 | 53.3 | 2.69" | T |  |  |  | 1965 | 47.5 | 4.46" | 8.8' |

## TABLE 64

## WARMEST AND COLDEST FALL SEASONS (SEPTEMBER, OCTOBER, NOVEMBER) WITH THEIR AVERAGE MEAN TEMPERATURE AND

 AMOUNT OF PRECIPITATION RECEIVED DURING THE PERIOD 1928-1997| Warmest |  |  |  | Climatological Normals for Fall Season |  |  | Coldest |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Mean <br> Temp | Precip (inches) | Snowfall (Inches) |  |  |  | Year | Mean <br> Temp | Precip (Inches) | Snowfall (Inches) |
| 1953 | 56.1 | $1.41^{\prime \prime}$ | 0.4" | Temp | Precip | Snow | 1930 | 48.0 | 5.08" | 15.9" |
| 1990 | 55.8 | 2.49" | $4.8{ }^{\prime \prime}$ | 53.1 | $4.01{ }^{\prime \prime}$ | $8.8{ }^{\prime \prime}$ | 1971 | 48.3 | $6.01{ }^{\prime \prime}$ | 26.0" |
| 1983 | 55.6 | 4.88" | 5.9" |  |  |  | 1961 | 48.4 | 3.85" | 19.4" |
| 1937 | 55.1 | $3.76{ }^{\prime \prime}$ | T |  |  |  | 1946 | 49.4 | $5.35{ }^{\prime \prime}$ | $9.5{ }^{\prime \prime}$ |
| 1995 | 55.0 | $2.71{ }^{\prime \prime}$ | $0.6{ }^{\prime \prime}$ |  |  |  | 1970 | 49.5 | 6.68" | 1.0" |
| 1979 | 54.8 | 2.32" | $4.6{ }^{\prime \prime}$ |  |  |  | 1941 | 49.6 | 4.62" | 11.1" |
| 1933 | 54.6 | 1.49" | $1.0^{\prime \prime}$ |  |  |  | 1936 | 50.1 | 2.84" | 6.5 " |

TABLE 65
HOLIDAY WEATHER INFORMATION
1929-1997

|  | Avg <br> Max <br> Temp | Avg <br> Min <br> Temp | High Max <br> Temp | Date | Low <br> Max <br> Temp | Date | High Min <br> Temp | Date | Low <br> Min <br> Temp | Date | Chnc of .01 inch or more pcpn | Pct of days with 0.1 inch or more snow | Max 24 hour snow | Date |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NEW YEARS DAY January 1 | 35 | 19 | 58.1 | 1943 | 14.2 | 1979 | 42.0 | 1934 | -4.0 | 1931 | 25\% | 22\% | $4.6{ }^{\prime \prime}$ | 1937 |
| PRESIDENTS DAY <br> February 18 February 25 | 46 | 26 | 64.8 | 1958 | 29.1 | 1955 | 42.9 | 1982 | 5.9 | 1975 | $\begin{gathered} 33 \% \\ \# \end{gathered}$ | $\underset{*}{21 \%}$ | 2.7" | 1942 |
| EASTER SEASON March 15 - April 15 | 57 | 35 | 83.7 | $\begin{gathered} 4 / 7 \\ 1930 \end{gathered}$ | 27.2 | $\begin{aligned} & 3 / 27 \\ & 1975 \end{aligned}$ | 61.8 | $\begin{aligned} & 4 / 12 \\ & 1992 \end{aligned}$ | 10.0 | $\begin{aligned} & 3 / 19 \\ & 1965 \end{aligned}$ | $\begin{gathered} 30 \% \\ \# \end{gathered}$ | $\begin{gathered} 13 \% \\ * \end{gathered}$ | 11.8 | $\begin{aligned} & 4 / 10 \\ & 1974 \end{aligned}$ |
| MEMORIAL DAY <br> Last Monday in May | 76 | 49 | 92.7 | $\begin{gathered} 5 / 31 \\ 1956 \\ + \end{gathered}$ | 52.0 | $\begin{aligned} & 5 / 30 \\ & 1937 \end{aligned}$ | 66.6 | $\begin{aligned} & 5 / 27 \\ & 1974 \end{aligned}$ | 32.4 | $\begin{aligned} & 5 / 28 \\ & 1954 \end{aligned}$ | $\begin{gathered} 26 \% \\ \# \end{gathered}$ |  |  |  |
| INDEPENDENCE <br> DAY <br> July 4 | 90 | 62 | 101.8 | 1936 | 72.1 | 1993 | 70.9 | 1988 | 46.7 | 1938 | 10\% |  |  |  |
| PIONEER <br> DAY <br> July 24 | 94 | 65 | 105.4 | 1931 | 73.5 | 1993 | 77.2 | 1953 | 50.2 | 1954 | 17\% |  |  |  |
| LABOR DAY <br> First Monday in September | 84 | 56 | 98.0 | $\begin{gathered} 9 / 4 \\ 1950 \end{gathered}$ | 57.3 | $\begin{gathered} 9 / 1 \\ 1973 \end{gathered}$ | 71.3 | $\begin{gathered} 9 / 4 \\ 1978 \end{gathered}$ | 38.6 | $\begin{gathered} 9 / 3 \\ 1961 \end{gathered}$ | $\begin{gathered} 17 \% \\ \# \end{gathered}$ |  |  |  |
| UTAH STATE FAIR <br> September 1-15 | 83 | 54 | 100.0 | $\begin{gathered} 9 / 8 \\ 1979 \end{gathered}$ | 54.9 | $\begin{gathered} 9 / 5 \\ 1970 \end{gathered}$ | 73.1 | $\begin{gathered} 9 / 5 \\ 1978 \end{gathered}$ | 32.2 | $\begin{aligned} & 9 / 13 \\ & 1928 \end{aligned}$ | $\begin{gathered} 16 \% \\ \# \end{gathered}$ |  |  |  |
| HALLOWEEN <br> October 31 | 59 | 36 | 72.0 | 1990 | 35.1 | 1971 | 53.2 | 1990 | 17.5 | 1935 | 28\% | 6\% | 8.5" | 1971 |
| THANKSGIVING DAY November $22-28$ | 46 | 28 | 68.6 | $\begin{gathered} 11 / \\ 25 \\ 1960 \end{gathered}$ | 22.5 | $\begin{gathered} 11 / \\ 24 \\ 1931 \end{gathered}$ | 46.9 | $\begin{gathered} 11 / \\ 24 \\ 1960 \end{gathered}$ | 0.0 | $\begin{gathered} 11 / \\ 24 \\ 1931 \end{gathered}$ | $\begin{gathered} 26 \% \\ \# \end{gathered}$ | $\begin{gathered} 19 \% \\ * \end{gathered}$ | 7.0" | $\begin{gathered} 11 / \\ 26 \\ 1973 \end{gathered}$ |
| CHRISTMAS <br> DAY <br> December 25 | 36 | 20 | 59.2 | 1955 | 18.1 | 1990 | 46.0 | 1955 | -6.7 | 1930 | 34\% | 30\% | 5.9" | 1943 |

\# These percentages relative to the probability of precipitation on any one day of the given period.

* These percentages relative to the probability of snowfall on any one day of the given period.
+ Also occurred on May 27, 1951.


# WHITE CHRISTMAS OCCURRENCES IN SALT LAKE CITY 

1928-1997

NUMBER OF YEARS WITH TRACE OR MORE FALLING 34 OUT OF 70 YEARS $=49 \%$ OF THE TIME

NUMBER OF YEARS WITH 0.1 INCH OR MORE FALLING 20 OUT OF 70 YEARS $=29 \%$ OF THE TIME

NUMBER OF YEARS WITH 0.5 INCH OR MORE FALLING 14 OUT OF 70 YEARS $=20 \%$ OF THE TIME

NUMBER OF YEARS WITH 1 INCH OR MORE FALLING 10 OUT OF 70 YEARS $=14 \%$ OF THE TIME

NUMBER OF YEARS WITH 2 INCHES OR MORE FALLING 6 OUT OF 70 YEARS $=9 \%$ OF THE TIME

NUMBER OF YEARS WITH 3 INCHES OR MORE FALLING 4 OUT OF 70 YEARS $=6 \%$ OF THE TIME

NUMBER OF YEARS WITH 5 INCHES OR MORE FALLING 1 OUT OF 70 YEARS $=1 \%$ OF THE TIME

NUMBER OF YEARS WITH TRACE OR MORE ON THE GROUND 46 OUT OF 70 YEARS $=66 \%$ OF THE TIME

NUMBER OF YEARS WITH 1 INCH OR MORE ON THE GROUND 32 OUT OF 70 YEARS $=46 \%$ OF THE TIME

NUMBER OF YEARS WITH 3 INCHES OR MORE ON THE GROUND 18 OUT OF 70 YEARS $=26 \%$ OF THE TIME

NUMBER OF YEARS WITH 5 INCHES OR MORE ON THE GROUND 9 OUT OF 70 YEARS $=13 \%$ OF THE TIME

NUMBER OF YEARS WITH 10 INCHES OR MORE ON THE GROUND 1 OUT OF 70 YEARS $=1 \%$ OF THE TIME

NUMBER OF YEARS WITH NO SNOW FALLING OR ON THE GROUND 18 OUT OF 70 YEARS $=\mathbf{2 6 \%}$ OF THE TIME

NUMBER OF YEARS WITH NO SNOW ON THE GROUND 24 OUT OF 70 YEARS $=34 \%$ OF THE TIME

NUMBER OF YEARS WITH A TRACE OR NO SNOW ON THE GROUND 38 OUT OF 70 YEARS $=54 \%$ OF THE TIME

NUMBER OF YEARS WITH NO SNOW FALLING
36 OUT OF 70 YEARS $=51 \%$ OF THE TIME
NUMBER OF YEARS WITH A TRACE OR NO SNOW FALLING 50 OUT OF 70 YEARS $=71 \%$ OF THE TIME

## CLIMATOLOGICAL STATISTICS FOR CHRISTMAS DAY

Average Maximum Temperature 36 degrees.<br>Average Minimum Temperature 20 degrees.<br>Highest Maximum Temperature Ever Recorded was 59 degrees in 1955. Lowest Minimum Temperature Ever Recorded was -7 degrees in 1930.<br>Lowest Maximum Temperature Ever Recorded was 18 degrees in 1990.<br>Highest Minimum Temperature Ever Recorded was 46 degrees in 1955.<br>Greatest Snow Depth ever was 14 inches in 1932....but 13 inches was on the ground in 1983.<br>Greatest 24-hour Snowfall on Christmas Day was 6 inches in 1943.

## WIND CHILL CHART

Equivalent Temperature ( ${ }^{\circ} \mathbf{F}$ )

|  | Calm | 35 | 30 | 25 | 20 | 15 | 10 | 5 | 0 | $-5$ | -10 | -15 | -20 | -25 | -30 | -35 | -40 | -45 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | 32 | 27 | 22 | 16 | 11 | 6 | 0 | -5 | -10 | -15 | -21 | -26 | -31 | -36 | -42 | -47 | -52 |
|  | 10 | 22 | 16 | 10 | 3 | -3 | -9 | -15 | -22 | -27 | -34 | -40 | -46 | -52 | -58 | -64 | -71 | -77 |
| Wind Speed (mph) | 15 | 16 | 9 | 2 | -5 | -11 | -18 | -25 | -31 | -38 | -45 | -51 | -58 | -65 | -72 | -78 | -85 | -92 |
|  | 20 | 12 | 4 | -3 | -10 | -17 | -24 | -31 | -39 | -46 | -53 | -60 | -67 | -74 | -81 | -88 | -95 | -103 |
|  | 25 | 8 | 1 | -7 | -15 | -22 | -29 | -36 | -44 | -51 | -59 | -66 | -74 | -81 | -88 | -96 | -103 | -110 |
|  | 30 | 6 | -2 | -10 | -18 | -25 | -33 | 41 | -49 | -56 | -64 | -71 | -79 | -86 | -93 | -101 | -109 | -116 |
|  | 35 | 4 | -4 | -12 | -20 | -27 | -35 | -43 | -52 | -58 | -67 | -74 | -82 | -89 | -97 | -105 | -113 | -120 |
|  | 40 | 3 | -5 | -13 | -21 | -29 | -37 | -45 | -53 | -60 | -69 | -76 | -84 | -92 | -100 | -107 | -115 | -123 |
|  | 45 | 2 | -6 | -14 | -22 | -30 | -38 | -46 | -54 | -62 | -70 | -78 | -85 | -93 | -102 | -109 | -117 | -125 |


[^0]:    IHE DAILY VALUES PRESENIED IN THESE TABLES ARE NOI SIMPLE MEANS OF OBSERVED VALUES IHEY ARE INTERPOLATED FROM THE MUCH LESS YARIABLE MONIHLY NORMALS BY USE OF THE NALURAL SPL LNE FUNCIION. 1 IN $I E A P$ YEARS USE THE FEBRUARY ALSO COMPUIED USING THE ANDUDS SPINE FUNCII ON AND DO NOY EKHISIT IHE IYPICAI DAILY RANDOM PATIEANS HOHEYERE THEY MAY EE USED IO COMPUIE NORMAL PAECIPITATION OVER TIME INTERVALS.

[^1]:    + Also occurred in earlier years.

[^2]:    * This table, for example, states that the average time interval is 100 years before 0.48 inches of rain or more falls at the Salt Lake Airport in a 5 minute period, or 0.95 inches or more in a 10 minute period, or 1.38 inches or more in a 15 minute period, etc. In another example, the table also states that about once in every 10 years it is possible for 0.30 inches or more of precipitation to fall at the Salt Lake Airport in 5 minutes, 0.52 inches or more in 10 minutes, or 0.64 inches or more in 15 minutes, etc.
    \# This table was compiled using hourly data and Pearsons distribution system by Mr. A.L. Zimmerman, former Hydrologist in Charge of the Colorado Basin River Forecast Center.

[^3]:    + Also occurred in earlier years

[^4]:    * Not confined to midnight-midnight.

[^5]:    * The average number of days with measurable snowfall is less than 1 day.

