



**NOAA TECHNICAL MEMORANDUM  
NWS WR-239**

---

**CLIMATE OF PORTLAND, OR**

**Clinton C. D. Rocky  
National Weather Service Forecast Office  
Portland, Oregon**

**May 1996**

---

**U.S. DEPARTMENT OF  
COMMERCE**

/ National Oceanic and  
Atmospheric Administration

/ National Weather  
Service



**NOAA TECHNICAL MEMORANDA**  
National Weather Service, Western Region Subseries

The National Weather Service (NWS) Western Region (WR) Subseries provides an informal medium for the documentation and quick dissemination of results not appropriate, or not yet ready, for formal publication. The series is used to report on work in progress, to describe technical procedures and practices, or to relate progress to a limited audience. These Technical Memoranda will report on investigations devoted primarily to regional and local problems of interest mainly to personnel, and hence will not be widely distributed.

Papers 1 to 25 are in the former series, ESSA Technical Memoranda, Western Region Technical Memoranda (WRTM); papers 24 to 59 are in the former series, ESSA Technical Memoranda, Weather Bureau Technical Memoranda (WBTM). Beginning with 60, the papers are part of the series, NOAA Technical Memoranda NWS. Out-of-print memoranda are not listed.

Papers 2 to 22, except for 5 (revised edition), are available from the National Weather Service Western Region, Scientific Services Division, 125 South State Street - Rm 1210, Salt Lake City, Utah 84138-1102. Paper 5 (revised edition), and all others beginning with 25 are available from the National Technical Information Service, U.S. Department of Commerce, Sills Building, 5285 Port Royal Road, Springfield, Virginia 22161. Prices vary for all paper copies; microfiche are \$3.50. Order by accession number shown in parentheses at end of each entry.

**ESSA Technical Memoranda (WRTM)**

- 2 Climatological Precipitation Probabilities. Compiled by Lucianne Miller, December 1965.
- 3 Western Region Pre- and Post-FP-3 Program, December 1, 1965, to February 20, 1966. Edward D. Diemer, March 1966.
- 5 Station Descriptions of Local Effects on Synoptic Weather Patterns. Philip Williams, Jr., April 1966 (Revised November 1967, October 1969). (PB-17800)
- 8 Interpreting the RAREP. Herbert P. Benner, May 1966 (Revised January 1967).
- 11 Some Electrical Processes in the Atmosphere. J. Latham, June 1966.
- 17 A Digitalized Summary of Radar Echoes within 100 Miles of Sacramento, California. J. A. Youngberg and L. B. Overaas, December 1966.
- 21 An Objective Aid for Forecasting the End of East Winds in the Columbia Gorge, July through October. D. John Copernis, April 1967.
- 22 Derivation of Radar Horizons in Mountainous Terrain. Roger G. Pappas, April 1967.

**ESSA Technical Memoranda, Weather Bureau Technical Memoranda (WBTM)**

- 25 Verification of Operation Probability of Precipitation Forecasts, April 1966-March 1967. W. W. Dickey, October 1967. (PB-176240)
- 26 A Study of Winds in the Lake Mead Recreation Area. R. P. Augulis, January 1968. (PB-177830)
- 28 Weather Extremes. R. J. Schmidli, April 1968 (Revised March 1966). (PB86 177672/AS). (Revised October 1991 - PB92-115062/AS)
- 29 Small-Scale Analysis and Prediction. Philip Williams, Jr., May 1968. (PB178425)
- 30 Numerical Weather Prediction and Synoptic Meteorology. CPT Thomas D. Murphy, USAF, May 1968. (AD 673365)
- 31 Precipitation Detection Probabilities by Salt Lake ARTC Radars. Robert K. Belesky, July 1968. (PB 179084)
- 32 Probability Forecasting—A Problem Analysis with Reference to the Portland Fire Weather District. Harold S. Ayer, July 1968. (PB 179289)
- 36 Temperature Trends in Sacramento—Another Heat Island. Anthony D. Lentini, February 1969. (PB 183055)
- 37 Disposal of Logging Residues Without Damage to Air Quality. Owen P. Cramer, March 1969. (PB 183057)
- 39 Upper-Air Lows Over Northwestern United States. A.L. Jacobson, April 1969. PB 184296)
- 40 The Man-Machine Mix in Applied Weather Forecasting in the 1970s. L.V. Snellman, August 1969. (PB 185068)
- 43 Forecasting Maximum Temperatures at Helena, Montana. David E. Olsen, October 1969. (PB 185762)
- 44 Estimated Return Periods for Short-Duration Precipitation in Arizona. Paul C. Kangieser, October 1969. (PB 187763)
- 46 Applications of the Net Radiometer to Short-Range Fog and Stratus Forecasting at Eugene, Oregon. L. Yee and E. Bates, December 1969. (PB 190476)
- 47 Statistical Analysis as a Flood Routing Tool. Robert J.C. Burnash, December 1969. (PB 188744)
- 48 Tsunami. Richard P. Augulis, February 1970. (PB 190157)
- 49 Predicting Precipitation Type. Robert J.C. Burnash and Floyd E. Hug, March 1970. (PB 190962)
- 50 Statistical Report on Aeroallergens (Pollens and Molds) Fort Huachuca, Arizona, 1969. Wayne S. Johnson, April 1970. (PB 191743)
- 51 Western Region Sea State and Surf Forecaster's Manual. Gordon C. Shields and Gerald B. Burdwell, July 1970. (PB 193102)
- 52 Sacramento Weather Radar Climatology. R.G. Pappas and C. M. Veliquette, July 1970. (PB 193347)
- 54 A Refinement of the Vorticity Field to Delineate Areas of Significant Precipitation. Barry B. Aronovitch, August 1970.
- 55 Application of the SSARR Model to a Basin without Discharge Record. Vail Schemmerhorn and Donal W. Kuehl, August 1970. (PB 194394)
- 56 Areal Coverage of Precipitation in Northwestern Utah. Philip Williams, Jr., and Werner J. Heck, September 1970. (PB 194389)
- 57 Preliminary Report on Agricultural Field Burning vs. Atmospheric Visibility in the Willamette Valley of Oregon. Earl M. Bates and David O. Chilcote, September 1970. (PB 194710)
- 58 Air Pollution by Jet Aircraft at Seattle-Tacoma Airport. Wallace R. Donaldson, October 1970. (COM 71 00017)
- 59 Application of PE Model Forecast Parameters to Local-Area Forecasting. Leonard W. Snellman, October 1970. (COM 71 00016)
- 60 An Aid for Forecasting the Minimum Temperature at Medford, Oregon, Arthur W. Fritz, October 1970. (COM 71 00120)
- 63 700-mb Warm Air Advection as a Forecasting Tool for Montana and Northern Idaho. Norris E. Woerner, February 1971. (COM 71 00349)
- 64 Wind and Weather Regimes at Great Falls, Montana. Warren B. Price, March 1971.
- 65 Climate of Sacramento, California. Tony Martini, April 1990. (Fifth Revision) (PB89 207781/AS)
- 66 A Preliminary Report on Correlation of ARTCC Radar Echoes and Precipitation. Wilbur K. Hall, June 1971. (COM 71 00829)
- 69 National Weather Service Support to Soaring Activities. Ellis Burton, August 1971. (COM 71 00956)
- 71 Western Region Synoptic Analysis-Problems and Methods. Philip Williams, Jr., February 1972. (COM 72 10433)

- 74 Thunderstorms and Hail Days Probabilities in Nevada. Clarence M. Sakamoto, April 1972. (COM 72 10554)
- 75 A Study of the Low Level Jet Stream of the San Joaquin Valley. Ronald A. Willis and Philip Williams, Jr., May 1972. (COM 72 10707)
- 76 Monthly Climatological Charts of the Behavior of Fog and Low Stratus at Los Angeles International Airport. Donald M. Gales, July 1972. (COM 72 11140)
- 77 A Study of Radar Echo Distribution in Arizona During July and August. John E. Hales, Jr., July 1972. (COM 72 11136)
- 78 Forecasting Precipitation at Bakersfield, California, Using Pressure Gradient Vectors. Earl T. Riddiough, July 1972. (COM 72 11146)
- 79 Climate of Stockton, California. Robert C. Nelson, July 1972. (COM 72 10920)
- 80 Estimation of Number of Days Above or Below Selected Temperatures. Clarence M. Sakamoto, October 1972. (COM 72 10021)
- 81 An Aid for Forecasting Summer Maximum Temperatures at Seattle, Washington. Edgar G. Johnson, November 1972. (COM 73 10150)
- 82 Flash Flood Forecasting and Warning Program in the Western Region. Philip Williams, Jr., Chester L. Glenn, and Roland L. Raetz, December 1972, (Revised March 1978). (COM 73 10251)
- 83 A comparison of Manual and Semiautomatic Methods of Digitizing Analog Wind Records. Glenn E. Rasch, March 1973. (COM 73 10669)
- 86 Conditional Probabilities for Sequences of Wet Days at Phoenix, Arizona. Paul C. Kangieser, June 1973. (COM 73 11264)
- 87 A Refinement of the Use of K-Values in Forecasting Thunderstorms in Washington and Oregon. Robert Y.G. Lee, June 1973. (COM 73 11276)
- 89 Objective Forecast Precipitation Over the Western Region of the United States. Julia N. Paegle and Larry P. Kierulff, September 1973. (COM 73 11946/3AS)
- 91 Arizona "Eddy" Tornadoes. Robert S. Ingram, October 1973. (COM 73 10465)
- 92 Smoke Management in the Willamette Valley. Earl M. Bates, May 1974. (COM 74 11277/AS)
- 93 An Operational Evaluation of 500-mb Type Regression Equations. Alexander E. MacDonald, June 1974. (COM 74 11407/AS)
- 94 Conditional Probability of Visibility Less than One-Half Mile in Radiation Fog at Fresno, California. John D. Thomas, August 1974. (COM 74 11555/AS)
- 95 Climate of Flagstaff, Arizona. Paul W. Sorenson, and updated by Reginald W. Preston, January 1987. (PB87 143160/AS)
- 96 Map type Precipitation Probabilities for the Western Region. Glenn E. Rasch and Alexander E. MacDonald, February 1975. (COM 75 10428/AS)
- 97 Eastern Pacific Cut-Off Low of April 21-28, 1974. William J. Alder and George R. Miller, January 1976. (PB 250 711/AS)
- 98 Study on a Significant Precipitation Episode in Western United States. Ira S. Brenner, April 1976. (COM 75 10719/AS)
- 99 A Study of Flash Flood Susceptibility-A Basin in Southern Arizona. Gerald Williams, August 1975. (COM 75 11360/AS)
- 102 A Set of Rules for Forecasting Temperatures in Napa and Sonoma Counties. Wesley L. Tuft, October 1975. (PB 246 902/AS)
- 103 Application of the National Weather Service Flash-Flood Program in the Western Region. Gerald Williams, January 1976. (PB 253 053/AS)
- 104 Objective Aids for Forecasting Minimum Temperatures at Reno, Nevada, During the Summer Months. Christopher D. Hill, January 1976. (PB 252 866/AS)
- 105 Forecasting the Mono Wind. Charles P. Ruscha, Jr., February 1976. (PB 254 650)
- 106 Use of MOS Forecast Parameters in Temperature Forecasting. John C. Plankinton, Jr., March 1976. (PB 254 649)
- 107 Map Types as Aids in Using MOS PoPs in Western United States. Ira S. Brenner, August 1976. (PB 259 594)
- 108 Other Kinds of Wind Shear. Christopher D. Hill, August 1976. (PB 260 437/AS)
- 109 Forecasting North Winds in the Upper Sacramento Valley and Adjoining Forests. Christopher E. Fontana, September 1976. (PB 273 677/AS)
- 110 Cool Inflow as a Weakening Influence on Eastern Pacific Tropical Cyclones. William J. Denney, November 1976. (PB 264 655/AS)
- 112 The MAN/MOS Program. Alexander E. MacDonald, February 1977. (PB 265 941/AS)
- 113 Winter Season Minimum Temperature Formula for Bakersfield, California, Using Multiple Regression. Michael J. Oard, February 1977. (PB 273 694/AS)
- 114 Tropical Cyclone Kathleen. James R. Fors, February 1977. (PB 273 676/AS)
- 116 A Study of Wind Gusts on Lake Mead. Bradley Colman, April 1977. (PB 268 847)
- 117 The Relative Frequency of Cumulonimbus Clouds at the Nevada Test Site as a Function of K-Value. R.F. Quiring, April 1977. (PB 272 831)
- 118 Moisture Distribution Modification by Upward Vertical Motion. Ira S. Brenner, April 1977. (PB 268 740)
- 119 Relative Frequency of Occurrence of Warm Season Echo Activity as a Function of Stability Indices Computed from the Yucca Flat, Nevada, Rawinsonde. Darryl Randerson, June 1977. (PB 271 290/AS)
- 121 Climatological Prediction of Cumulonimbus Clouds in the Vicinity of the Yucca Flat Weather Station. R.F. Quiring, June 1977. (PB 271 704/AS)
- 122 A Method for Transforming Temperature Distribution to Normality. Morris S. Webb, Jr., June 1977. (PB 271 742/AS)
- 124 Statistical Guidance for Prediction of Eastern North Pacific Tropical Cyclone Motion - Part I. Charles J. Neumann and Preston W. Leftwich, August 1977. (PB 272 661)
- 125 Statistical Guidance on the Prediction of Eastern North Pacific Tropical Cyclone Motion - Part II. Preston W. Leftwich and Charles J. Neumann, August 1977. (PB 273 155/AS)
- 126 Climate of San Francisco. E. Jan Null, February 1978. Revised by George T. Pericht, April 1988. (PB88 208624/AS)
- 127 Development of a Probability Equation for Winter-Type Precipitation Patterns in Great Falls, Montana. Kenneth B. Mielke, February 1978. (PB 261 387/AS)
- 128 Hand Calculator Program to Compute Parcel Thermal Dynamics. Dan Gudgel, April 1978. (PB 283 080/AS)
- 129 Fire whirls. David W. Goens, May 1978. (PB 283 866/AS)
- 130 Flash-Flood Procedure. Ralph C. Hatch and Gerald Williams, May 1978. (PB 286 014/AS)
- 131 Automated Fire-Weather Forecasts. Mark A. Moliner and David E. Olsen, September 1978. (PB 289 916/AS)
- 132 Estimates of the Effects of Terrain Blocking on the Los Angeles WSR-74C Weather Radar. R.G. Pappas, R.Y. Lee, B.W. Finke, October 1978. (PB 289767/AS)
- 133 Spectral Techniques in Ocean Wave Forecasting. John A. Jannuzzi, October 1978. (PB291317/AS)
- 134 Solar Radiation. John A. Jannuzzi, November 1978. (PB291195/AS)
- 135 Application of a Spectrum Analyzer in Forecasting Ocean Swell in Southern California Coastal Waters. Lawrence P. Kierulff, January 1979. (PB292716/AS)
- 136 Basic Hydrologic Principles. Thomas L. Dietrich, January 1979. (PB292247/AS)
- 137 LFM 24-Hour Prediction of Eastern Pacific Cyclones Refined by Satellite Images. John R. Zimmerman and Charles P. Ruscha, Jr., January 1979. (PB294324/AS)
- 138 A Simple Analysis/Diagnosis System for Real Time Evaluation of Vertical Motion. Scott Heflick and James R. Fors, February 1979. (PB294216/AS)
- 139 Aids for Forecasting Minimum Temperature in the Wenatchee Frost District. Robert S. Robinson, April 1979. (PB298339/AS)
- 140 Influence of Cloudiness on Summertime Temperatures in the Eastern Washington Fire Weather district. James Holcomb, April 1979. (PB298674/AS)

**NOAA TECHNICAL MEMORANDUM  
NWS WR-239**

**CLIMATE OF PORTLAND, OR**

**Clinton C. D. Rocky  
National Weather Service Forecast Office  
Portland, Oregon**

**May 1996**

UNITED STATES  
DEPARTMENT OF COMMERCE  
Mickey Kantor, Secretary

National Oceanic and  
Atmospheric Administration  
D. James Baker, Under Secretary  
and Administrator

National Weather Service  
Elbert W. Friday, Jr., Assistant  
Administrator for Weather Services



**This publication has been reviewed  
and is approved for publication by  
Scientific Services Division,  
Western Region**

A handwritten signature in black ink, appearing to read 'D. Edman', written in a cursive style.

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

# TABLE OF CONTENTS

---

<b>The Climate of Portland, Oregon</b> .....	1
<b>Station History</b> .....	2
<b>Portland Map, Showing Weather Observation Sites</b> .....	4
<b>1995: THE YEAR IN REVIEW</b> .....	5
Temperature, Precipitation and Sunshine Graphs .....	6
Monthly Recaps .....	8
<b>TEMPERATURE DATA</b> .....	23
Average and Extreme Temperature Graphs .....	24
Daily Temperature Normals and Records .....	25
Annual Maximum, Minimum and Mean Temperature Graphs .....	37
Number of Days Per Month With High of 90 Deg or More and 32 Deg or Less ...	38
Number of Days Per Month With Low of 32 Deg or Less and 0 Deg or Less .....	38
Cumulative Frequency of Maximum and Minimum Temperatures .....	39
Longest Hot Spells and Cold Snaps .....	40
Monthly Mean Maximum Temperatures .....	41
Monthly Mean Maximum Temperature Graphs .....	44
Monthly Mean Minimum Temperatures .....	48
Monthly Mean Minimum Temperature Graphs .....	51
Monthly Mean Temperatures .....	55
Warmest and Coldest Months and Years .....	58
Monthly Extreme Maximum Temperatures .....	60
Monthly Extreme Minimum Temperatures .....	63
First and Last Occurrence of High Temperatures of 70, 80, 90 and 100 Deg.....	66
Monthly and Seasonal Cooling Degree Days .....	69
Monthly and Seasonal Heating Degree Days .....	70
First and Last Occurrence of Killing Freeze .....	72
Growing Season Normals and Records .....	72
<b>PRECIPITATION DATA</b> .....	75
Annual Precipitation Totals Since 1871 Graph .....	76
Monthly Precipitation: Normals and Extremes Graph .....	76
Daily Precipitation Normals and Records .....	77

**PRECIPITATION DATA (continued)**

Monthly Precipitation Data .....	83
Wettest and Driest Months and Years .....	86
Greatest 24-Hour Precipitation and Longest Rainy and Dry Periods.....	88
Greatest Short Duration Rainfall Records .....	89
Days with Measurable Rainfall since 1940 .....	90
Daily Probability of Measurable Precipitation .....	91
Daily Probability of Measurable Precipitation Graph .....	92
Probability of Receiving 0.01 Inch of Rain Based on Time of Day .....	93
Probability of Receiving 0.25 Inch of Rain Based on Time of Day .....	94
Probability of Receiving 0.50 Inch of Rain Based on Time of Day .....	95
Probability of Receiving 1.00 Inch of Rain Based on Time of Day .....	96
Probability of Receiving 2.00 Inch of Rain Based on Time of Day .....	96
Monthly and Seasonal Snowfall Data .....	97
Snowfall Extremes .....	100
<b>SUNSHINE AND CLOUD DATA .....</b>	<b>101</b>
Days Cloudy, Partly Cloudy and Clear .....	102
Fog Data .....	103
Monthly and Annual Percentage of Possible Sunshine Received at Portland .....	104
Sunniest and Cloudiest Months and Years .....	107
Sunrise and Sunset Data for the Year 1996 .....	108
<b>OTHER CLIMATIC DATA .....</b>	<b>109</b>
Pressure: Monthly Normal and Extreme Values .....	110
Wind Normals and Extremes .....	111
Windiest Months and Years .....	111
Relative Humidity Normals Based on Time of Day .....	112
Rose Parade Weather .....	113

## THE CLIMATE OF PORTLAND OREGON

Portland is situated about 65 miles inland from the Pacific Ocean and midway between the northerly oriented low coast range on the west and the higher Cascade range on the east, each about 30 miles distant. The coast range provides limited shielding from the Pacific Ocean. The Cascades provide a steep slope for orographic lift of moisture-laden westerly winds and consequent moderate rainfall. The Cascades also act as a barrier, preventing the colder continental air masses originating in Canada from penetrating western Oregon. Airflow is usually northwesterly in Portland during the spring and summer and southeasterly in the fall and winter. The Portland airport location is drier than most surrounding locations.

Rain is a part of life during the winter months in Portland. Approximately 88 percent of the annual total rainfall occurs in the months from October through May. Nine percent falls in June and September, and only three percent comes in July and August.

Precipitation is mostly rain, as on the average there are only five days per year with measurable snow. Snowfall accumulations are rarely more than a couple of inches and generally stay on the ground only a few days.

The winter season is marked by relatively mild temperatures, cloudy skies, and rain with southeasterly surface winds predominating. Summer produces pleasantly mild temperatures, northwesterly wind, and very little precipitation. Autumn and spring are transitional in nature. Autumn and early winter are times with the most frequent fog. October is the foggiest of the months.

At all times, marine air invasions are a frequent moderating influence, bringing cool and moist air from the Pacific Ocean. Outbreaks of continental high pressure from east of the Cascade Mountains produce strong easterly winds through the Columbia Gorge into the Portland area. In winter, this brings the coldest weather with extremes of low temperature registered in the cold air mass. Freezing rain and glaze ice are

sometimes transitional effects. Temperatures below zero are rare, occurring only about six times over the last 125 years. In summer, hot, dry continental air brings the highest temperatures. Temperatures above 100 are infrequent. Temperatures of 90 degrees or higher are usually reached each year, but seldom persist for more than two or three days. Based on the 1961-1990 period, the average first occurrence of temperatures 32 degrees or lower in autumn is November 8 and the last occurrence in the spring is March 30.

Destructive storms are infrequent in the Portland area. Surface winds seldom exceed gale force and rarely in the period of record have winds reached higher than 75 mph. Thunderstorms occur about once a month during the spring and summer months. Heavy downpours are infrequent but gentle rains and mist occur almost daily during the winter months.

Portland is located in the Willamette Valley, a rich and diverse agricultural area. Farm products grown in the valley include grass seed, hay, grapes for wine production, mint, as well as a large variety of fruits and vegetables for fresh markets and processing. The long growing season with mild temperatures and ample moisture makes the area an ideal location for the nursery and seed industries. Portland is known as the Rose City because its mild climate creates nearly perfect growing conditions for roses and rhododendrons. Portland is home to test rose gardens and the Rose Festival and Parade each June celebrates Portland's connection with these floral products.<sup>1</sup>

---

<sup>1</sup>Climate Description drawn in part from the Annual Local Climatological Data of Portland Oregon, 1994, provided by the National Climatic Data Center.

## STATION HISTORY

Official weather records were begun in Portland on November 1, 1871, when a station was established by the Signal Corps of the United States Army. Only fragmentary records were kept previous to that time. Weather observations were made by the Signal Corps until the end of June, 1891. On July 1, 1891, the meteorological work of the federal government was taken over by the United States Weather Bureau, a part of the Department of Agriculture. On July 1, 1940, the Weather Bureau was transferred to the Department of Commerce.

The station was first located in the Gilman Building, at what is now known as the corner of SW First Avenue and Alder Street. On December 21, 1872, it was moved to the Parish Building at SW Front Avenue and Washington Street. Then on January 1, 1878, the station moved to the Oregon and Washington Trust Company's bank building at 48 (old number) SW Front Avenue. On August 1, 1885, it moved to the Kamm Building at SW First Avenue and Pine Street. A fire in the Kamm Building forced another move on October 5, 1892, to the Oregonian Building at SW Sixth Avenue and Alder Street. Finally the station moved on June 8, 1902 to the U. S. Custom House at 220 NW Eighth Avenue. A map at the end of this section shows the moves in relation to downtown Portland.

At first, the thermometers were mounted in a shelter attached to a north window, but when the move was made to the Kamm Building, the shelter was placed on the roof, and subsequent exposures of the shelter have been roof exposures.

Throughout the entire period of record, the rain gauges have been exposed on the roof. The height of the Gilman Building is not known, however subsequent elevations of the rain gauge above ground are as follows:

Parish Building	47 feet,
Ore/Wash Trust Bldg	51 feet,
Kamm Building	76 feet,
Oregonian Building	196 feet,
Custom House	63 feet.

A self-recording weighing type rain gauge was installed on February 11, 1890. It was replaced by a bucket-type recording gauge on June 8, 1902. Exposure of wind instruments has been similar to that of the rain gauges, but only a few feet higher. The highest exposure of the anemometer was 209 feet above ground on the Oregonian Building. At the Custom House, it is 106 feet above ground level. Self-registering thermometers, indicating the highest and lowest temperature for the day, were installed in July 1874. A thermograph was installed in June 1888, allowing for a continuous written record of temperature data. Relative humidity records were begun in January 1872 and a sunshine recorder was installed in January 1891.

The Portland Airport weather station opened on July 16, 1928. It was located at what was then known as the Portland Airport, where the Swan Island Shipyard is now located. At the airport, the anemometer, thermometers, and rain gauge were on the roof of the Administration Building. On September 30, 1940, the airport station was moved again, this time to the Portland International Airport near the Columbia River, about 9 miles northeast of the Custom House. At this location, the thermometers and rain gauges were at ground level. The anemometer was on the roof of the United Airlines hangar until February 1, 1949, when it was moved about 250 feet west of the hangar and placed on the roof of the service building. It was 62 feet above ground level while on the United Airlines hangar and then 33 feet above ground level on the service building.

During the summer of 1948, the infamous Vanport Flood occurred. The Vanport flood was the greatest flood on the Columbia River since 1894. As a result of heavy rainfall and large snowmelt on the Upper Columbia Basin, a river dike collapsed near Vanport, now known as the Delta Park area. The flood waters inundated the river valley for over 40 days forcing the office to temporarily relocate to the Custom House in downtown Portland. The office returned to the Portland International Airport location on Northeast Marine Drive during August 1948.



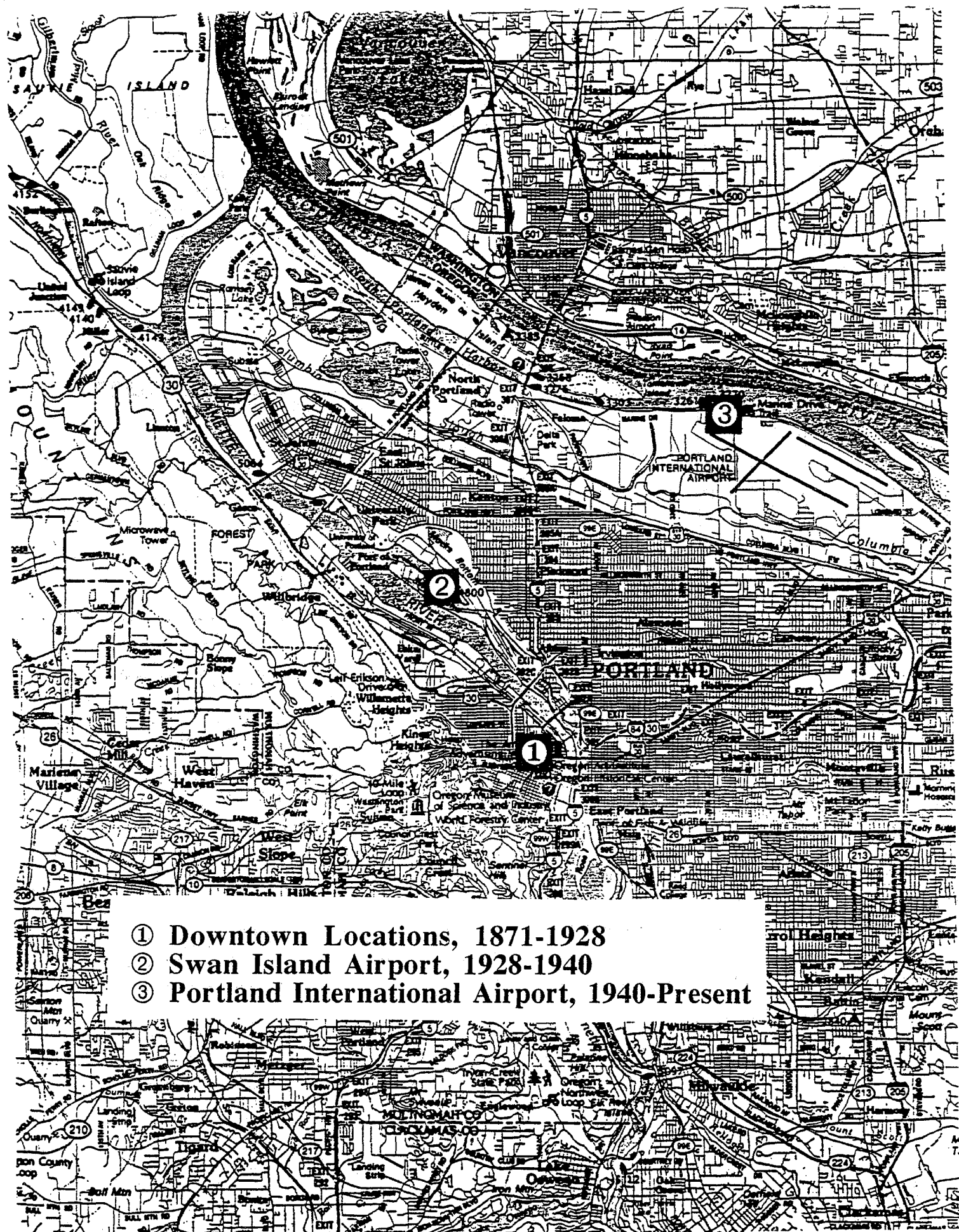
In July 1994, the office moved to its present location on NE 122nd Avenue, about 4 miles east of the Portland International Airport. However, weather observations continued at the airport office on Marine Drive. On November 1, 1995, ASOS, the Automatic Surface Observing System, became operational. The table below shows site information and changes concerning the observing equipment during the office's history.

**Acknowledgements:** I would like to thank the many dedicated National Weather Service observers that diligently took observations and maintained climate records over the past 125 years. Special thanks to Traci Hodgson who contributed much time and thoughtfulness to the design and layout of this project, and to Paul Tolleson and Bill Schneider for their useful reviews.

STATION LOCATION

PORTLAND, OREGON

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										REMARKS	
						SEA LEVEL	GROUND										A-C-O-R-O-N-E-T-I-C-O-M
							W	U	A	S	C	R	A	I	M		
CITY - - NOTE: For period November 1, 1871 through January 1, 1870, refer to previous editions.																	
Oregon-Washington Trust Building, 48 1st Street	1/1/78	8/1/85	1200 ft. NNW	45°31'	122°40'	28	68	45									a - Anemometer. b - Wind Vane.
Kamm Building 1st & Pine Street	8/1/85	11/5/92	600 ft. SW	45°31'	122°40'	28	92	84	84	Unk	c76	76				Sunshine records began 1/1/91. c - Added 2/11/90.	
Oregon Building 6th & Adler St.	11/5/92	6/8/02	2000 ft. SW	45°31'	122°40'	40	209	200	200	Unk	197	197					
220 Custom House Davis-Everett on Park	6/8/02	6/8/38	2000 ft. N	45°32'	122°40'	30	96	68	68	95	e63	63				d - Effective 10/30/06. e - Added 6/8/02.	
320 Custom House Davis-Everett on Park	6/8/38	1/1/50	Change in room only	45°32'	122°40'	30	106	68	68	95	63	63					
321 Custom House Davis-Everett on Park	1/1/50	7/1/73	NA	45°32'	122°40'	30		68	68			63	63			Sunshine recorder and wind recording equipment transferred to airport station 1/1/50.	
AIRPORT Temporary Quarters Swan Island Airport	7/14/28	5/7/30	3.3 mi. NW of WBO	45°34'	122°43'	33											
Administration Building Swan Island Airport	5/7/30	10/13/40	NA	45°34'	122°43'	33	46	29	29				25				
UAL Building, Portland-Columbia Airport	10/13/40	9/30/43	6 mi. ENE	45°36'	122°36'	20	62	5	5				4				
Portland Building Portland-Columbia AP	9/30/43	5/31/48	75 ft. E	45°36'	122°36'	20	62	5	5				4				
322 Custom House NW Park and Davis	5/31/48	8/24/48	9 mi. SSW	45°32'	122°40'	30	106	68	68		63	63				Field flooded, operated at city office site.	
UAL Building Portland Airport	8/24/48	2/4/49	9 mi. NNE	45°36'	122°36'	21	62	5	5				4	4		Relocated at airport in UAL Hangar temporarily.	
Administration Building Portland International Airport	2/4/49	5/17/57	0.13 mi. W	45°36'	122°36'	21	33	6	5	f4	f4		4	h		f - Installed 1/3/50.	
Administration Building Portland International Airport	5/17/57	Present	NA	45°36'	122°36'	21	93	96	95	j23	k3	4	5	NA	h6	NA	g - Not moved 5/17/57. h - Telenchronometer (41) 2/4/49-10/3/63. Hygro. comp. 0.25 mi. SE of office 10/3/63. i - Relocated 4/19/62. j - Moved to roof 2/26/64. k - Minor move 2/26/64. m - Lowered 3/19/73. n - Minor adjustment 1/18/82. p - Type change 9/9/85.

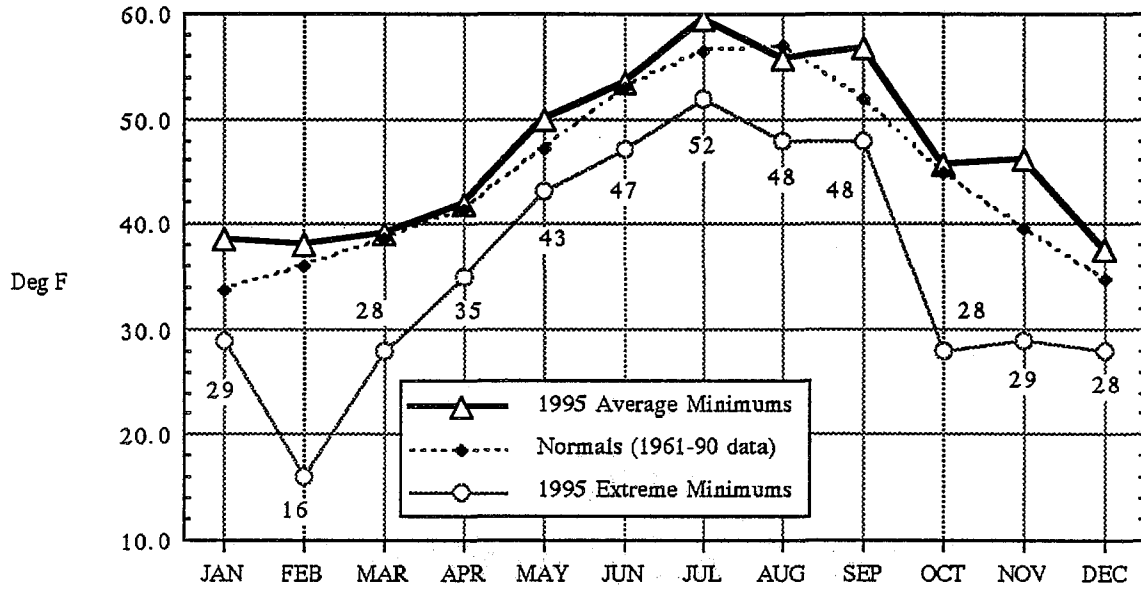


- ① Downtown Locations, 1871-1928
- ② Swan Island Airport, 1928-1940
- ③ Portland International Airport, 1940-Present

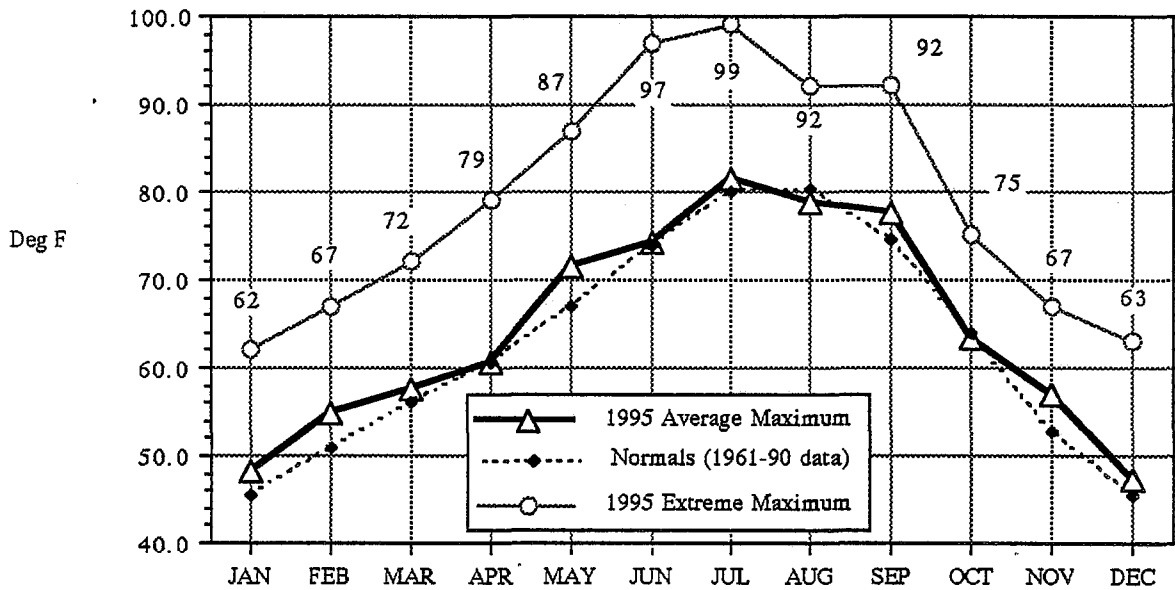
**1995**  
**THE YEAR IN REVIEW**

**1995 RECAP: MINIMUM AND MAXIMUM TEMPERATURES**

**1995 RECAP: MINIMUM TEMPERATURES**

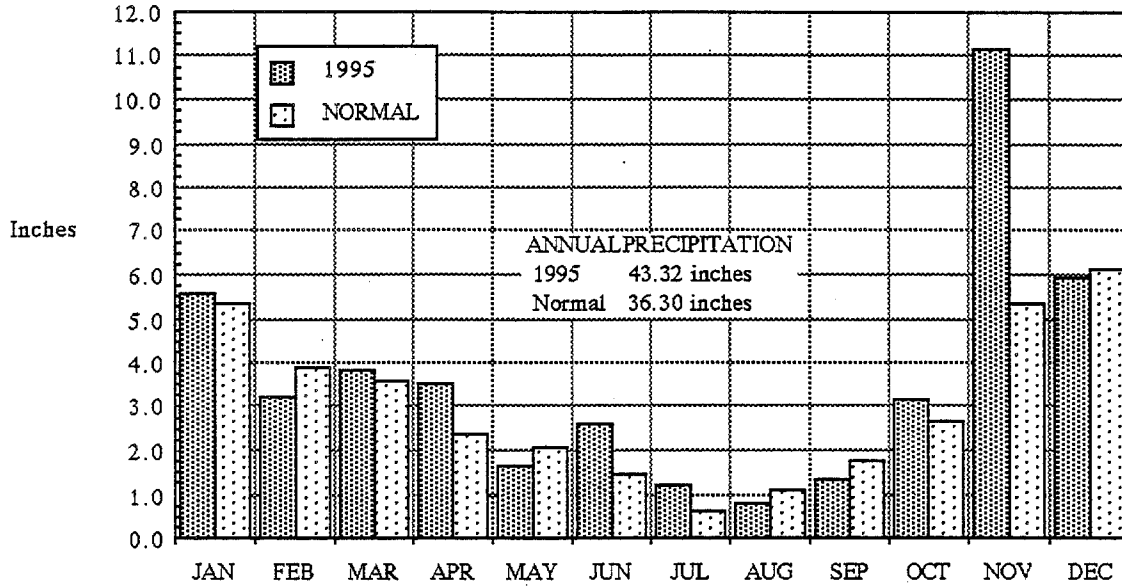


**1995 RECAP: MAXIMUM TEMPERATURES**

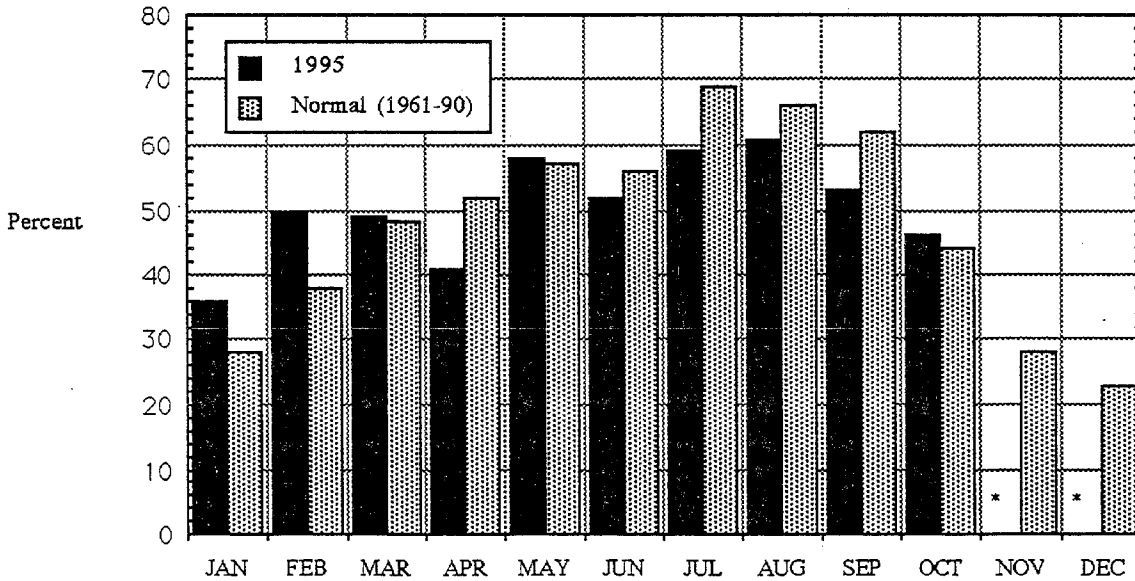


# 1995 RECAP: PRECIPITATION AND SUNSHINE DATA

## 1995 RECAP: PRECIPITATION



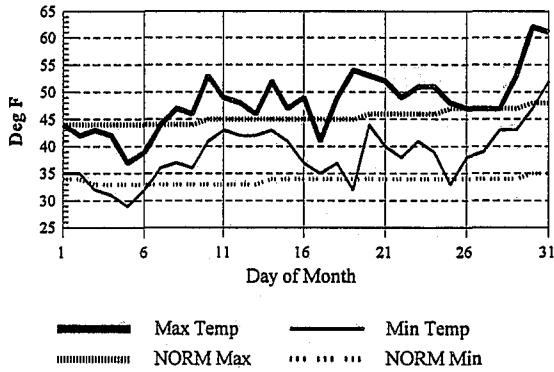
## 1995 RECAP: AVAILABLE SUNSHINE RECEIVED



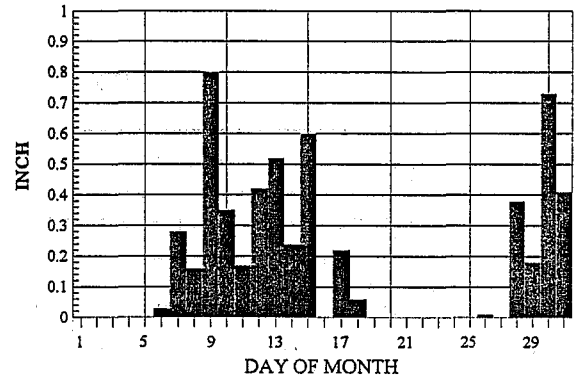
\*Sunshine recording equipment disconnected on November 1, 1995.

## JANUARY 1995 RECAP

### TEMPERATURE



### PRECIPITATION



The beginning of January was dry with a large blocking ridge of high pressure over Idaho and eastern Oregon. This diverted storms to the north into Canada and to the south into California. By mid-month, however, the ridge moved east into the northern Rockies. Onshore flow and storms returned to western Oregon. Between the 6th and the 18th, nearly 3 inches of rain fell. Then a weak ridge attempted to build northward into the area, but a strong upper

level low remained over the northeastern Pacific. This low moved back into Oregon toward the end of the month bringing rain and record warmth due to southerly winds.

January was not a foggy month, but was quite cloudy with 23 cloudy days and only 4 clear days. Despite the clouds, Portland was able to get 36% of the possible sunshine compared to a normal of 28%.

### JANUARY 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 62 on the 30th  
 Minimum: 29 on the 5th

Averages... Maximum: 48.2 deg  
 2.8 deg above normal  
 Minimum: 38.5 deg  
 4.8 deg above normal  
 Mean: 43.3 deg  
 3.7 deg above normal

#### Precipitation...

Monthly Total: 5.56 inches  
 0.21 inch above normal

Greatest 24-hour Rainfall:  
 0.93 inch on the 30th-31st

Snowfall Total: Trace (on 6-7th)

#### Wind...

Averages... Wind Speed: 15.1 mph  
 Direction: East

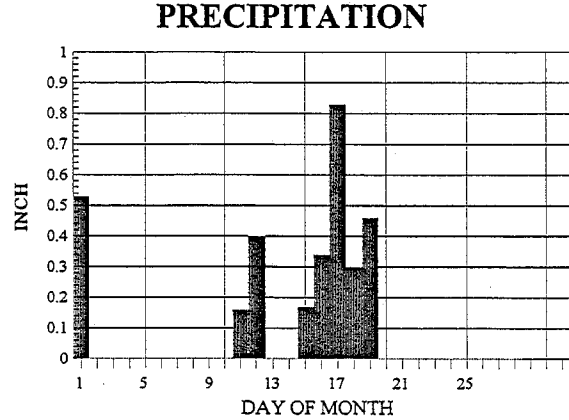
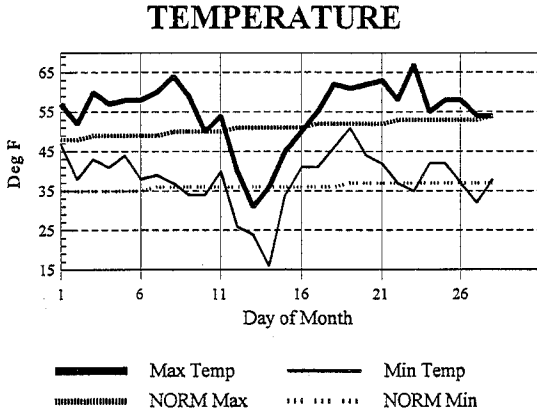
Fastest 2-Minute: East at 35 mph  
 Peak wind: East at 45 mph

#### NEW RECORDS SET...

Record High... 62 deg on the 30th  
 breaks record of 61 set in 1984

Record High... 61 deg on the 31st  
 breaks record of 58 set in 1992.

## FEBRUARY 1995 RECAP



February started with a bit of rain early but a ridge began building over eastern Oregon and Idaho on the 3rd. This brought dry air and balmy conditions over western Oregon for the first week. Around the 7th the ridge moved east into the northern Rockies but an area of high pressure developed over the northeastern Pacific. This forced the jetstream into Alaska then southward over western Oregon and Washington. On the 11th a disturbance in the jetstream intensified over western British Columbia and moved southward paralleling the coast. Cold air from eastern Oregon spilled through the Columbia Gorge chilling Portland from the 12th through the 14th. The storm brought snow to the Portland area with many

locations on east side of the metropolitan area measuring up to 14 inches of snow. On the 12th cold air and snow continued moving south into the Willamette Valley. After the 15th a strong westerly flow returned moderating temperatures again. Another storm moved through Portland from the 17th to the 19th. The rest of the month brought dry and mild conditions to western Oregon as high pressure centered over northern California.

Despite the rainy mid-month weather, Portland received 50% of its available sunshine which is more than the normal 38%. There were 18 cloudy days and only 5 clear days.

### FEBRUARY 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 67 on the 23rd  
 Minimum: 16 on the 14th

Averages... Maximum: 54.9 deg  
 3.9 deg above normal  
 Minimum: 38.0 deg  
 1.9 deg above normal  
 Mean: 46.5 deg  
 2.9 deg above normal

#### Precipitation...

Monthly Total: 3.19 inches  
 0.66 inch below normal

Greatest 24-hour Rainfall:  
 1.10 inches on the 16th-17th

Snowfall Total: 3.6 inches

Greatest 24-hour Snowfall:  
 3.6 inches on the 12th

Greatest Snow Depth:  
 4.0 inches on the 13th

## FEBRUARY 1995 RECAP (cont.)

### Wind...

Averages... Wind Speed: 9.0 mph  
Direction: East  
Fastest 2-Minute: East at 37 mph  
Peak wind: East at 48 mph

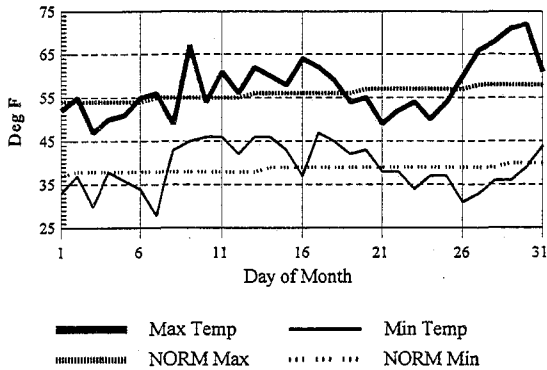
### NEW RECORDS SET...

Record High... 58 deg on the 5th  
ties record of 58 set in 1961  
Record High... 58 deg on the 6th  
ties record of 58 set in 1993  
Record High... 64 deg on the 8th  
breaks record of 60 set in 1970  
Record Low... 16 deg on the 14th  
breaks record of 20 set in 1990  
Record High... 67 deg on the 23rd  
breaks record of 63 set in 1983

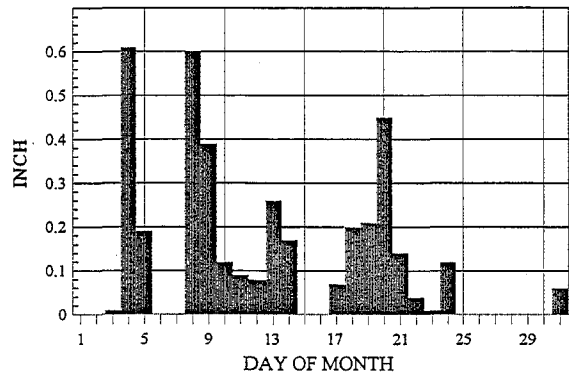


## MARCH 1995 RECAP

### TEMPERATURE



### PRECIPITATION



March came in like a lion with rain and wind to western Oregon. Thunderstorms brought small hail to Portland area on the 4th. A broad area of low pressure was over the eastern Pacific, bringing an onshore flow and occasional rain to Portland. Mid-March was definitely rainy as storm after storm moved in from the Pacific. On the 22nd and the 23rd showers and thunderstorms brought more small hail. Unlike February, heavy snow fell in the Cascades while valley locations

received beneficial rainfall. Weak high pressure developed during the third week, but another strong upper level low began developing over the eastern Pacific. By the end of the month, clouds and rain moved back into the area.

Portland received 49% of its available sunshine which is close to the normal 47%. There were 19 cloudy days and only 7 clear days.

### MARCH 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 72 on the 30th  
Minimum: 28 on the 7th  
Averages... Maximum: 57.5 deg  
1.5 deg above normal  
Minimum: 39.0 deg  
0.4 deg above normal  
Mean... 48.3 deg  
1.0 deg above normal

#### Precipitation...

Monthly Total: 3.82 inches  
0.26 inch above normal  
Greatest 24-hour Rainfall:  
0.78 inch on the 4-5th  
Snowfall Total: 0.40 inch  
(mostly as hail on the 20th)

#### Wind...

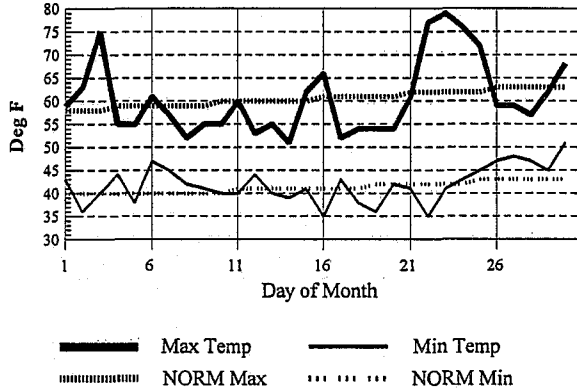
Averages... Wind Speed: 10.1 mph  
Direction: Southeast  
Fastest 2-Minute: South at 35 mph  
Peak Wind: South at 59 mph

#### NEW RECORDS SET...

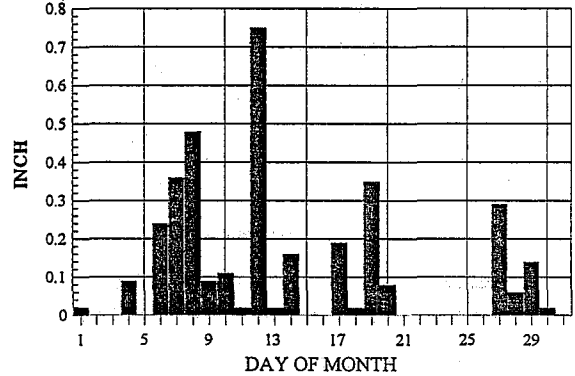
Record High... 67 deg on the 9th  
breaks record of 66 set in 1992  
Record Low... 31 deg on the 26th  
ties record of 31 set in 1957  
Record Daily Rainfall... 0.61 inch  
on the 4th breaks record set in  
1992.

## APRIL 1995 RECAP

### TEMPERATURE



### PRECIPITATION



April began uneventfully with weak fronts moving over the region. During the first few days of April, a high pressure ridge developed over the eastern Pacific. A cut-off low formed over the Great Basin area keeping a northerly flow over Oregon. By the 4th, the ridge moved inland which allowed the jet stream to take aim at Oregon. Front after front moved across the area for the next several weeks, bringing a persistent onshore flow, clouds, and rain. By the 21st, a ridge of high pressure over California and just offshore of Oregon brought a temporary end to the rain. Temperatures rose well

above normal with sunshine and dry northerly flow across the region. However, the pleasant skies ended on the 27th as an area of low pressure moved to just off the central Oregon coast. This kept temperatures mild, but rain and clouds returned with the onshore flow. Temperatures averaged nearly normal over the month while precipitation was above normal.

There were 21 cloudy days and only 4 clear days resulting in only 41% of available sunshine, quite a bit below the normal 52%.

### APRIL 1995 STATISTICS

#### Temperature...

Extremes...    Maximum: 79 on the 23rd  
                   Minimum: 35 on the 22nd

Averages...    Maximum: 60.6 deg  
                   0.0 deg above normal  
                   Minimums: 41.9 deg  
                   0.6 deg above normal  
                   Mean: 51.3 deg  
                   0.3 deg above normal

#### Precipitation...

Monthly Total:    3.49 inches  
                   1.10 inch above normal

#### Greatest 24-hour Rainfall:

0.75 inch on the 12th

#### Wind...

Averages...    Wind Speed: 7.5 mph  
   Direction: South

Fastest 2-Minute:    South at 28 mph  
 Peak Wind:            West at 33 mph

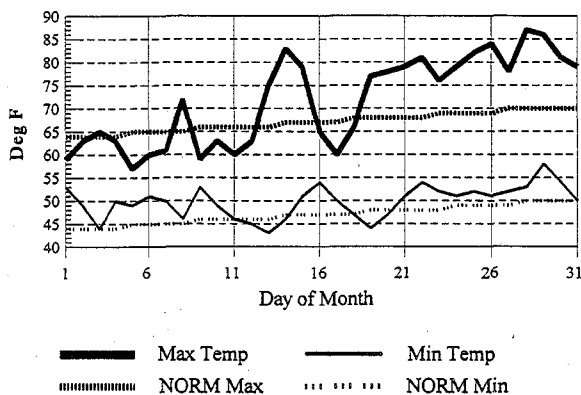
#### NEW RECORDS SET...

Record High...    75 deg on the 3rd  
   ties record of 75 set in 1951

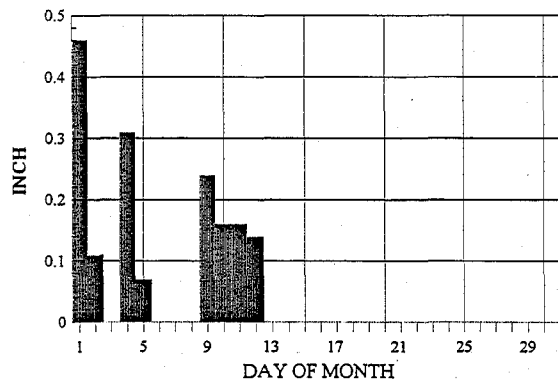
Record Low...    79 deg on the 23rd  
   breaks record of 76 set in 1977.

## MAY 1995 RECAP

### TEMPERATURE



### PRECIPITATION



May began with several fronts moving into the region with clouds and rain. A brief break occurred between the 6th and 8th when high pressure formed over British Columbia. This pushed the jetstream into Alaska taking storms with it. Western Oregon still had clouds with the onshore flow, but no rain. The high retreated northward on the 9th, allowing low pressure to return to the Pacific Northwest. Rain and a few thunderstorms returned to Portland from the 9th through the 12th. By the 14th, the low moved into

northern California taking the rain south of Oregon. A high pressure ridge over the eastern Pacific intensified over the second half of the month bringing above normal temperatures and sunshine to western Oregon.

Portland had 14 cloudy days and 8 clear days resulting in 58% of the available sunshine which is very close to the normal of 57% sunshine.

### MAY 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 87 on the 28th  
 Minimum: 43 on the 13th  
 Averages... Maximum: 71.6 deg  
 4.5 deg above normal  
 Minimum: 49.8 deg  
 2.8 deg above normal  
 Mean: 60.7 deg  
 3.6 deg above normal

#### Precipitation...

Monthly Total: 1.65 inches  
 0.41 inch below normal

#### Precipitation (continued)...

Greatest 24-hour Rainfall:  
 0.56 inch on the 1st-2nd

#### Wind...

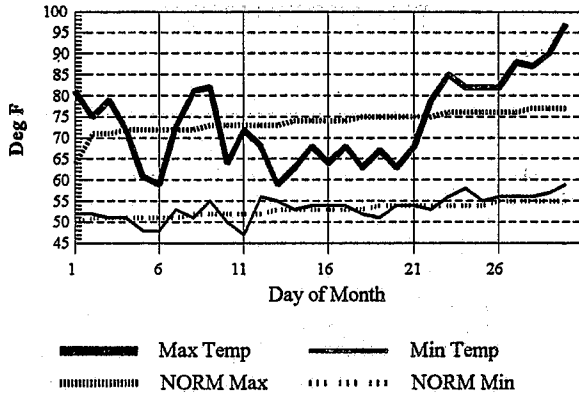
Averages... Wind Speed: 7.4 mph  
 Direction: Northwest  
 Fastest 2-Minute: North at 23 mph  
 Peak Wind: North at 35 mph

#### NEW RECORDS SET...

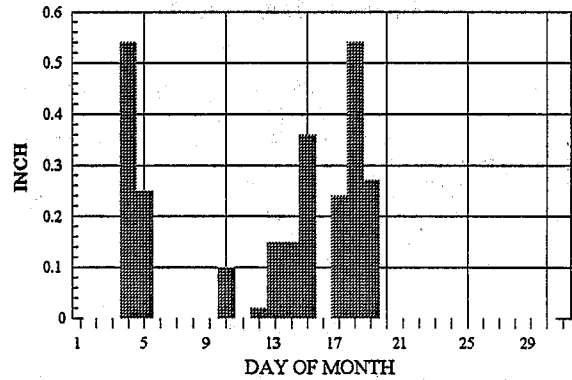
No records set.

## JUNE 1995 RECAP

### TEMPERATURE



### PRECIPITATION



June was the month of two completely different weather patterns. The high pressure ridge that developed over the eastern Pacific in late May moved into the Rocky Mountains by the 4th allowing an area of low pressure to take up residence west of Vancouver Island. This low moved across the area on the 4th through the 6th bringing rain and few thunderstorms. A series of strong lows followed the same track between the 10th and the 20th, each bringing more rain, clouds and onshore flow that kept temperatures cool. By the 22nd, the weather pattern changed, becoming more summer-like, just in time for

the summer solstice. On the 22nd, high pressure developed over northern California and southern Oregon, diverting the storms into Canada and bringing sun and warm temperatures to Oregon. On the 29th and 30th, the high moved into the eastern Pacific as thermal low pressure formed over northern California. Resulting offshore flow brought record temperatures to western Oregon.

Portland had 14 cloudy days and 8 clear days resulting in 52% of available sunshine while the normal sunshine received at Portland is 56%.

### JUNE 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 97 on the 30th  
 Minimum: 47 on the 11th  
 Averages... Maximum: 74.1 deg  
 0.1 deg above normal  
 Minimum: 53.4 deg  
 0.5 deg above normal  
 Mean: 63.8 deg  
 0.3 deg above normal

#### Precipitation (continued)...

1.14 inch above normal  
 Greatest 24-hour Rainfall:  
 0.81 inch on the 18th-19th

#### Wind...

Averages... Wind Speed: 8.2 mph  
 Direction: Northwest  
 Fastest 2-Minute: North at 26 mph  
 Peak Wind: West at 36 mph

#### Precipitation...

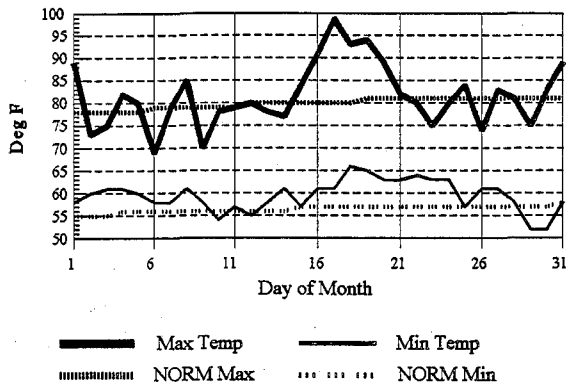
Monthly Total: 2.62 inches

#### NEW RECORDS SET...

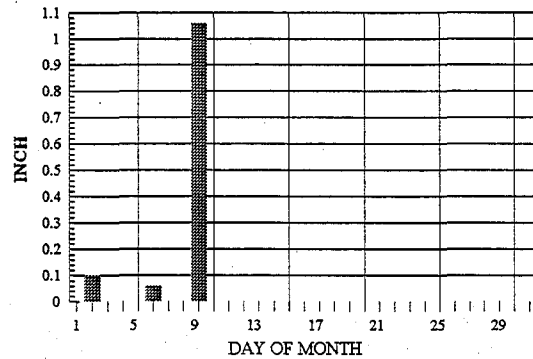
Record Daily Rainfall...0.54 inch on the 18th breaks old record of 0.22 set in 1971.

## JULY 1995 RECAP

### TEMPERATURE



### PRECIPITATION



July was dominated by offshore flow for most of the month. At the beginning of the month, an area of thermal low pressure over northern California extended northward into the Willamette Valley. The result was warm downslope winds off the Cascades along with a few late afternoon thunderstorms. By the 5th, the thermal moved east and cool marine air invaded the Willamette Valley. On the 8th, a large area of high pressure strengthened over the Great Basin forcing storms moving over the Pacific to stall just offshore from Oregon. A vigorous front moved across the area on the 9th bringing heavy rain. The rain event on the 9th brought 86% of the month's rainfall. The area of low pressure offshore became cut off from the jet stream and

meandered over southwestern Oregon and the adjacent coastal area until eventually dissipating on the 20th. Each time it passed in southwestern Oregon, thunderstorms developed, but remained south of Portland. Despite the stormy weather to the south, Portland remained dry as weak fronts moved across western Oregon. By the 22nd, high pressure over the southwestern United States intensified, bringing more sun and warmth to Portland.

Despite the two major sunny periods, the first part of July was cloudy enough to keep Portland at only 59% of the available sunshine, well below the normal of 70%. There were 15 cloudy days and 11 clear days.

### JULY 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 99 on the 17th  
 Minimum: 52 on the 30th

Averages... Maximum: 81.6 deg  
 1.7 deg above normal  
 Minimum: 59.5 deg  
 3.0 deg above normal  
 Mean: 70.6 deg  
 2.4 deg above normal

#### Precipitation...

Monthly Total: 1.23 inches

#### Precipitation (continued)...

0.60 inch above normal  
 Greatest 24-hour Rainfall:  
 1.06 inch on the 9th

#### Wind...

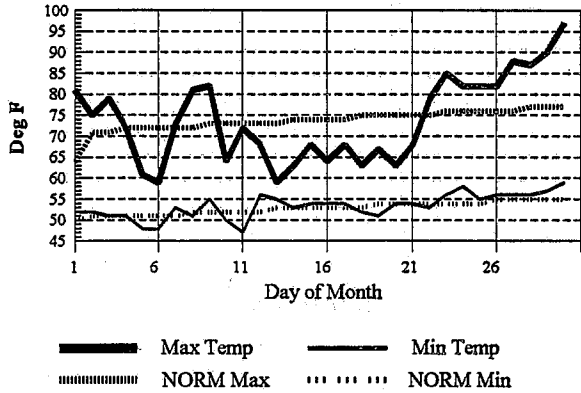
Averages... Wind Speed: 7.7 mph  
 Direction: Northwest  
 Fastest 2-Minute: Northwest at 22 mph  
 Peak Wind: Northwest at 30 mph

#### NEW RECORDS SET...

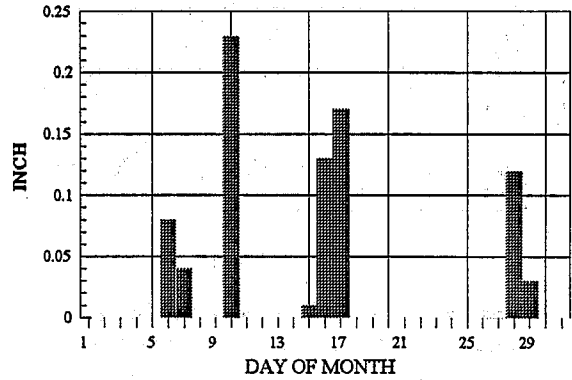
Record Daily Rainfall... 1.06 inches on the 9th breaks record of 0.26 set in 1954.

## AUGUST 1995 RECAP

### TEMPERATURE



### PRECIPITATION



Thermal low pressure over northern California kept an offshore flow over western Oregon during the first few days of August allowing temperatures to remain warm. Then on the 5th low pressure moved into southwestern British Columbia allowing a front to move into northwestern Oregon. Clouds and cool marine air brought rain to Portland on the 6th through the 10th. Weak high pressure on the 11th through the 14th brought partly cloudy skies to Portland. On the 15th, another low pressure area moved to just west of British Columbia. The result was a series of cool fronts to move into northwestern Oregon through the 18th. These fronts brought little rain, but continued the cool onshore flow.

By the 20th, high pressure once again intensified, this time over Colorado, forcing storms to move farther north of Portland into British Columbia. Temperatures warmed back above normal levels after the 22nd. Toward the end of the month, another low moved to just west of Astoria resulting in a mild southerly flow over western Oregon with only a scattered showers on the 28th and 29th. The occasional cool marine air over Portland kept monthly temperatures below normal while rainfall was below normal.

Portland had 10 cloudy days and 12 clear days resulting in 61% of available sunshine while the normal sunshine received at Portland is 66%.

### AUGUST 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 92 on the 20th  
 Minimum: 48 on the 24th

Averages... Maximum: 78.9 deg  
 1.4 deg below normal  
 Minimum: 55.6 deg  
 1.3 deg below normal  
 Mean: 67.3 deg  
 1.3 deg below normal

#### Precipitation...

Monthly Total: 0.81 inches  
 0.28 inch below normal

Greatest 24-hour Rainfall:  
 0.24 inch on the 16th-17th

#### Wind...

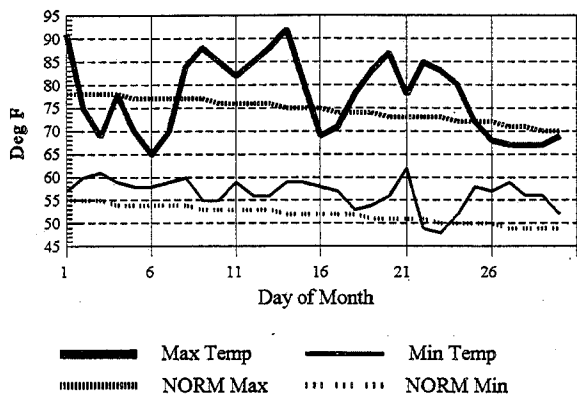
Averages... Wind Speed: 7.3 mph  
 Direction: Northwest

Fastest 2-Minute: Southwest at 20 mph  
 Peak Wind: Southwest at 31 mph

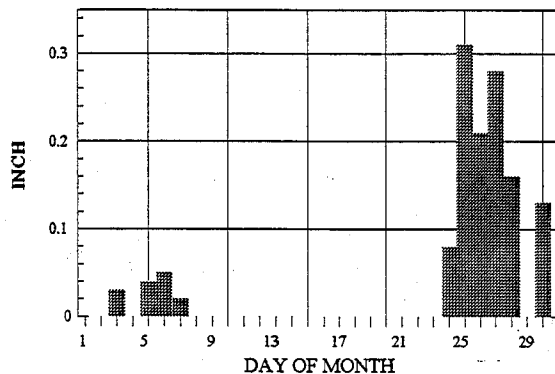
**NEW RECORDS SET...** None.

## SEPTEMBER 1995 RECAP

### TEMPERATURE



### PRECIPITATION



September started hot with the mercury soaring to 91 degrees on the 1st. However, on the 2nd, a low pressure area lingering offshore pushed cool marine air into western Oregon. Occasional light rain and cool air dominated the weather pattern from the 2nd through the 8th as the low moved across northwestern Oregon into Washington. As soon as the low moved east of Portland on the 8th, high pressure redeveloped over the eastern Pacific bringing warm temperatures to western Oregon through the 24th. On the 23rd, the high pressure ridge extended into the Yukon

province of Canada, with the center slowing moving north across British Columbia. On the 25th, the ridge split over the Pacific Northwest allowing a strong area of low pressure to move in the area. Once again onshore flow with cool marine air invaded western Oregon bringing an abrupt end to the warm late summer weather.

Portland had 13 cloudy days and 7 clear day. The cool marine air allowed Portland to receive only 53% of available sunshine compared to the normal of 62%.

### SEPTEMBER 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 92 on the 14th  
 Minimum: 48 on the 23rd

Average... Maximum: 77.6 deg  
 3.0 deg above normal  
 Minimum: 56.6 deg  
 4.6 deg above normal  
 Mean: 67.1 deg  
 3.8 deg above normal

#### Precipitation...

Monthly Total: 1.31 inches  
 0.44 inch below normal

#### Precipitation (continued)...

Greatest 24-hour Rainfall:  
 0.42 inch on the 26th-27th

#### Wind...

Averages... Wind Speed: 7.0 mph  
 Direction: South

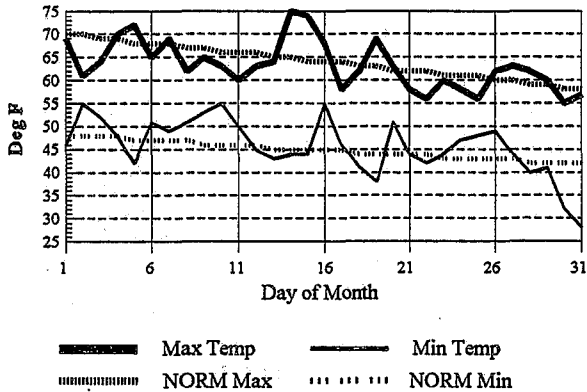
Fastest 2-Minute: East at 28 mph  
 Peak Wind: East at 44 mph

#### NEW RECORDS SET...

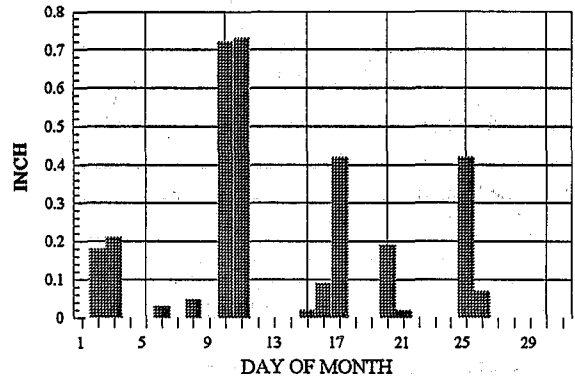
Record High.. 92 on the 14th ties old record set in 1979.

## OCTOBER 1995 RECAP

### TEMPERATURE



### PRECIPITATION



October was close to normal with front after front moving across western Oregon with only a day or two between them. Ground fog frequented the Portland area on many mornings with skies clearing during the night. On the 27th, an area of high pressure developed over central California, forcing the storm track north of Portland across Washington into Idaho. Western Oregon enjoyed drier weather but temperatures remained near normal.

Climatologically, October is the foggiest month with an average of 7 days with fog that has 1/4 mile or less visibility. Fog in October 1995 was not as thick, with only 1 day of the heavy fog reported.

Portland had 15 cloudy days and only 2 clear days which enabled Portland to receive 46% of the available sunshine compared to a normal of 43%.

### OCTOBER 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 75 on the 14th  
 Minimum: 28 on the 30th

Averages... Maximum: 63.3 deg  
 0.7 deg below normal  
 Minimum: 45.7 deg  
 0.8 deg above normal  
 Mean: 54.5 deg  
 exactly normal for October

#### Wind...

Averages... Wind Speed: 6.7 mph  
 Direction: Southeast

Fastest 2-Minute: East at 24 mph  
 Peak Wind: East at 35 mph

#### NEW RECORDS SET...

No records set in October.

#### Precipitation...

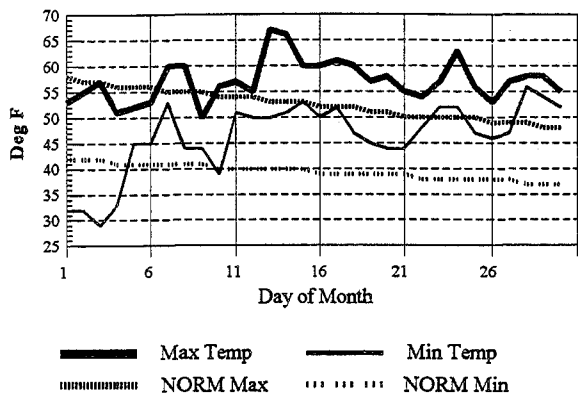
Monthly Total: 3.15 inches  
 0.48 inch above normal

Greatest 24-hour Rainfall:  
 1.38 inch on the 10th-11th

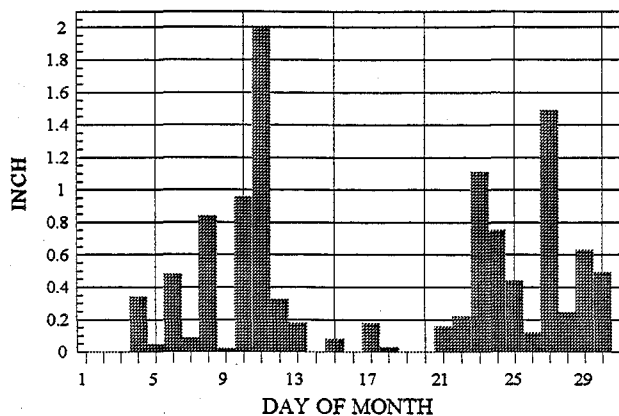


## NOVEMBER 1995 RECAP

### TEMPERATURE



### PRECIPITATION



The high pressure ridge that developed over California in late October weakened by the 4th of November. Upper air patterns began to change. On the 5th, an area of low pressure moved into the northeastern Pacific, allowing front after front to bombard western Oregon. In addition, the position of the low opened the Pineapple Expressway that pulled sub-tropical moisture northward, enhancing rainfall along the fronts. The most intense rainfall arrived on the 10th with heavy rain falling over much of northwestern Oregon. Many streams became bank-full, but flooding was isolated. Many locations around the Portland area measured 3 to 4 inches of rain between the 10th and the 12th. A short reprieve occurred on the 15th as a high over northern California pushed the storm track north of Portland before a weak front arrived on the 17th. Another strong low pressure area moved into northeastern Pacific as the ridge of high pressure moved to the Rocky Mountains and intensified on the 22nd. Again, the Pineapple Expressway was reopened. This kept several moisture-laded fronts moving into western Oregon. The sub-tropical air also brought high snow levels and record warm air into Oregon. Flooding was isolated in the Portland

area, but was more widespread over the north Oregon coastal and western Washington streams. However, during the final week of November, rain-swollen streams began to flood throughout northwestern Oregon. The Willamette and Columbia rivers became bank-full and flooded unprotected lowlands. Street flooding was a problem in many parts of the Portland metropolitan area due to fallen leaves that clogged storm drains.

Fog was reported in Portland on all but 3 days during November. On average, there are 6 days with heavy fog, defined as fog with visibilities of 1/4 mile or less. November 1995 recorded 2 such days.

ASOS, the Automated Surface Observing System, became operation on November 1. Sunshine information was not available due to technical difficulty.

Temperatures were well above normal during November. In fact during the latter half of the month, overnight lows were near the average high temperatures! November 1995 became the warmest and the 3rd wettest month on record.

## NOVEMBER 1995 RECAP (cont.)

### NOVEMBER 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 67 on the 13th  
Minimum: 29 on the 3rd  
Average... Maximum: 57.1 deg  
4.5 deg above normal  
Minimum: 46.2 deg  
6.7 deg above normal  
Mean: 51.7 deg  
5.6 deg above normal

#### Precipitation...

Monthly Total: 11.15 inches  
5.81 inches above normal  
Greatest 24-hour Rainfall:  
2.82 inches on the 10th-11th.

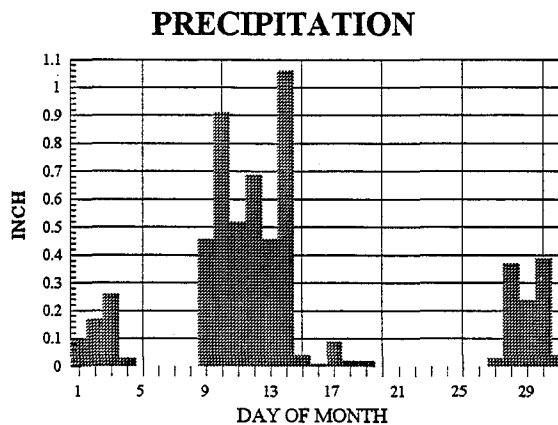
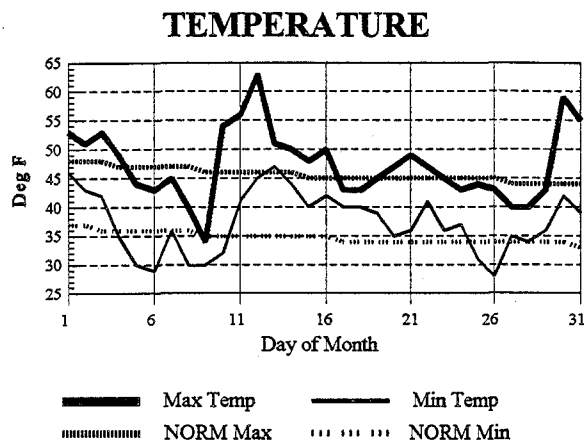
#### Wind...

Averages... Wind Speed: 9.0 mph  
Direction: South  
Fastest Two Minute: South at 29 mph  
Peak Wind: South at 39 mph

#### NEW RECORDS SET...

Record Monthly Average Temperature...  
51.7 deg breaks old record of 49.9  
set in 1949  
Record High... 67 deg on the 13th  
breaks old record 62 set in 1974  
Record High... 66 deg on the 14th  
breaks old record 63 set in 1967  
Record High... 61 deg on the 17th  
ties record set in 1976  
Record High... 60 deg on the 18th  
ties record set in 1965  
Record High... 58 deg on the 28th  
breaks old record of 57 set in 1982  
Record High... 58 deg on the 29th  
ties record set in 1942  
Record Daily Rainfall... 2.01 inches on  
the 11th breaks old record of 1.37 set  
in 1966.  
Record 24-hour Rainfall in November...  
2.82 inches on the 10th-11th breaks  
old record of 2.62 set in 1973.

## DECEMBER 1995 RECAP



Weather during December took a roller coaster ride ranging from icy weather to wet and windy to beautiful sunny postcard-perfect days. The beginning of the month continued where November left off--with lots of rain and warm weather. The broad area of low pressure over the Pacific Ocean weakened a bit on the 4th allowing a cold ridge of high pressure to establish itself over Nevada extending into British Columbia. The southward progression of strong arctic cold fronts were slowed by the Cascade and Rocky Mountain ranges of British Columbia and Washington. Eventually the modified arctic air arrived at Portland on the 7th, progressing southward to Eugene by the 8th. A strong pressure gradient from Portland to Pendleton created strong east winds through the Columbia Gorge. Cold air rode these winds into the Portland metropolitan area with temperatures dropping below freezing on the 8th and 9th. On the 9th, a warm front slowly moved northward across western Oregon. Ahead of the front, moderate rain fell, with freezing rain in the sub-freezing air in the Portland area and near the Gorge. Ice accumulations reached 1/4 to 1/2 inch with heavier accumulations in the Columbia Gorge where cold air lingered until the 11th. Warm

air arrived late on the 10th and turned freezing rain to rain in the Portland area. As soon as the ice storm was over, an intense low pressure area developed over the eastern Pacific. By early on the 12th, winds of over 100 mph were reported along the Oregon coast. During the day of the 12th, wind and rain intensified over Portland. The strongest winds at Portland were recorded around 3pm on the 12th as the center of low pressure passed near Astoria on its way into British Columbia. Winds of over 60 mph were recorded at the Portland airport with many gusts in the metropolitan area reported at near 90 mph. Fallen trees caused the most damage, crashing into homes, blocking roadways, and causing many power outages. The storm dissipated near Vancouver Island by 11pm on the 12th and winds in the Portland area had subsided by 10 pm. Atmospheric pressure records, including the state-wide all-time lowest, were broken at many locations in northwestern Oregon on the 12th. A broad area of low pressure remained over the northern Pacific, sending a series of storms into western Oregon between the 13th and the 19th. The strongest storm arrived on the 13th, taking a track similar to the December 12 storm. Heavy rains with these storms

## DECEMBER 1995 RECAP (cont.)

aggravated an already serious flooding situation on many northwestern Oregon streams and rivers. The Columbia and Willamette Rivers both ran bank-full most of the first two weeks of December with flooding reported in the unprotected lowlands along both rivers. The confluence of the Clackamas and the Willamette rivers near Oregon City created more lowland flooding.

On the 20th, a ridge of high pressure redeveloped over eastern Oregon and Idaho.

The ridge blocked the storms from reaching the Portland area, splitting the storm track, with some storms moving into California and some moving into British Columbia. Postcard perfect weather with blue skies returned to the Portland area on the 22nd through the 24th. On the 25th, the low pressure area over the north Pacific moved back toward British Columbia forcing the high eastward into Montana. Rain and mild air returned on the 27th through the 31st.

### DECEMBER 1995 STATISTICS

#### Temperature...

Extremes... Maximum: 63 on the 12th  
Minimum: 28 on the 26th  
Averages... Maximum: 47.4 deg  
1.8 deg above normal  
Minimum: 37.5 deg  
2.7 deg above normal  
Mean: 42.5 deg  
2.3 deg above normal.

#### Precipitation...

Monthly Total: 5.91 inches  
0.22 inch below normal  
Greatest 24-hour Rainfall:  
1.18 inches on the 10-11th  
Snowfall Total: Trace  
Greatest 24- hour Snowfall:  
Trace on the 9th

#### Wind...

Averages... Wind Speed: 11.1 mph  
Direction: Southeast  
Fastest Two Minute Wind:  
South at 51 mph  
Peak Wind: South at 62 mph

#### NEW RECORDS SET...

Record High... 63 deg on the 12th  
breaks old record 58 set in 1956  
December--- 2nd Lowest Atmospheric  
Pressure...  
28.71 inches on the 12th breaks old  
record of 28.72 inches, and is 2nd on  
the all-time lowest pressure recorded  
at Portland. The lowest pressure  
ever is 28.56 inches on January 9,  
1880.  
December Peak Wind... 62 mph,  
recorded by ASOS on the 12th,  
breaks the old record of 58 mph set  
in 1956. Unofficial gust recorders at  
the site recorded 74 mph.

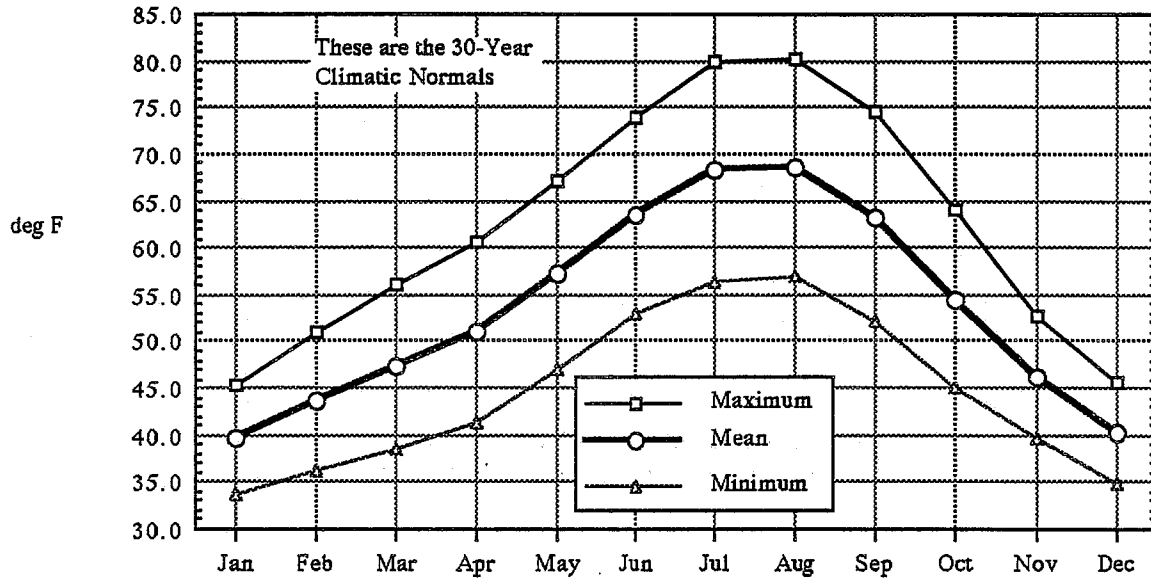
#### NEW ALL-TIME STATE RECORD...

Lowest Atmospheric Pressure...  
28.51 inches recorded at Astoria on  
the 12th breaks old record of 28.56  
inches set in Portland on January 9,  
1880.

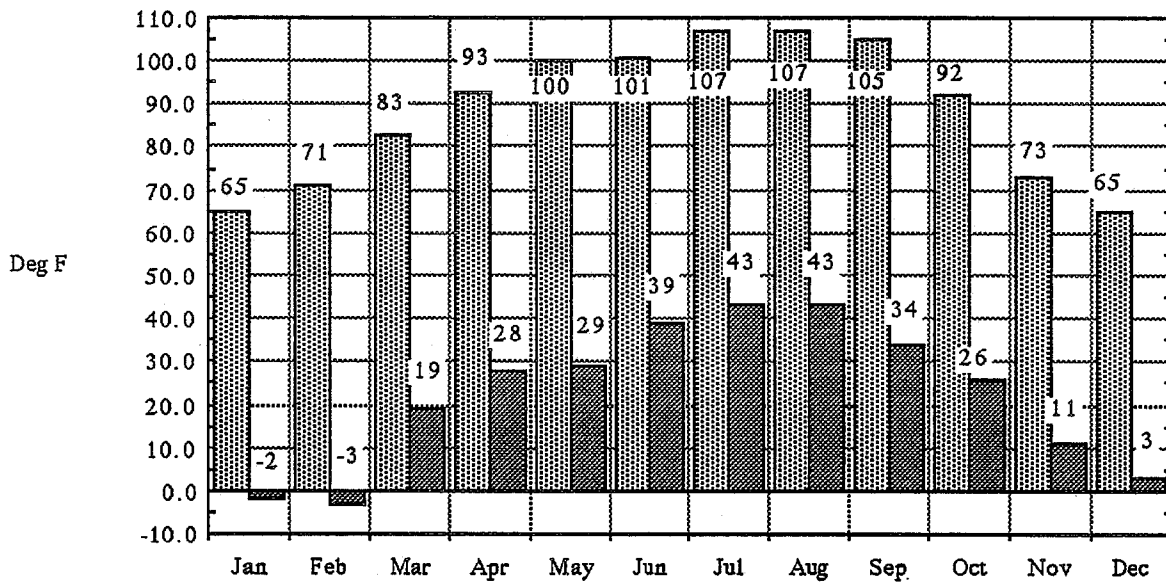
## **TEMPERATURE DATA**

# AVERAGE AND EXTREME MONTHLY TEMPERATURES

## AVERAGE TEMPERATURES (1961-1990)



## EXTREME TEMPERATURES (1871-1995)



**JANUARY TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	21	1979	60	1981	14	1979	49	1939	44	34	39	26	0
2	20	1890	58	1953	15	1890	50	1934	44	34	39	26	0
3	25	1924	60	1989	16	1959	52	1903	44	33	39	26	0
4	26	1959	59	1984	16	1890	50	1983	44	33	39	26	0
5	24	1890	62	1914	12	1890	50	1914	44	33	39	26	0
6	18	1909	61	1896	14	1982	52	1923	44	33	39	26	0
7	17	1909	62	1945	12	1909	51	1983	44	33	39	26	0
8	14	1909	58	1933	10	1909	50	1933	44	33	39	26	0
9	13	1909	61	1990	10	1909	50	1923	44	33	39	26	0
10	15	1909	57	1945	10	1909	45	1961	45	33	39	26	0
11	17	1909	59	1928	7	1888	50	1881	45	33	39	26	0
12	15	1909	62	1991	6	1909	53	1900	45	33	39	26	0
13	16	1875	61	1991	4	1875	53	1912	45	33	39	26	0
14	14	1875	60	1974	3	1875	50	1961	45	34	39	26	0
15	9	1888	62	1958	-2	1888	54	1974	45	34	39	26	0
16	10	1888	60	1971	0	1888	50	1920	45	34	39	26	0
17	18	1930	61	1900	6	1888	53	1919	45	34	39	26	0
18	18	1875	63	1986	8	1888	50	1891	45	34	40	25	0
19	21	1935	60	1971	8	1883	50	1972	45	34	40	25	0
20	20	1935	57	1903	12	1935	51	1972	46	34	40	25	0
21	24	1930	59	1970	9	1962	51	1897	46	34	40	25	0
22	21	1927	61	1970	9	1949	53	1919	46	34	40	25	0
23	26	1930	60	1953	10	1943	50	1992	46	34	40	25	0
24	27	1969	65	1935	3	1943	52	1984	46	34	40	25	0
25	22	1902	62	1888	11	1949	47	1951	47	34	40	25	0
26	23	1949	58	1971	6	1957	49	1931	47	34	40	25	0
27	22	1957	64	1931	8	1957	50	1931	47	34	41	24	0
28	20	1929	64	1931	10	1957	50	1965	47	34	41	24	0
29	20	1950	62	1984	8	1950	52	1965	47	34	41	24	0
30	24	1929	62	1995	10	1950	51	1925	48	35	41	24	0
31	16	1950	61	1995	-2	1950	52	1995	48	35	41	24	0
JANUARY EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
9	1888	65	1935	-2	1950	54	1974	45.4	33.7	39.6	787	0	

\* HDD are Heating Degree Days and CDD are Cooling Degree Days.

# HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

DAILY TEMPERATURE

FEBRUARY TEMPERATURE DATA  
(1871-1995)

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	25	1950	62	1934	1	1950	50	1930	48	35	41	24	0
2	18	1989	61	1991	- 3	1950	54	1881	48	35	42	23	0
3	15	1989	64	1963	4	1950	53	1881	49	35	42	23	0
4	20	1887	65	1886	8	1883	48	1991	49	35	42	23	0
5	14	1883	65	1886	7	1883	48	1961	49	35	42	23	0
6	29	1887	60	1907	10	1883	48	1953	49	35	42	23	0
7	28	1887	60	1945	12	1883	49	1934	49	36	43	22	0
8	32	1936	64	1995	12	1883	52	1907	50	36	43	22	0
9	23	1933	62	1963	12	1933	52	1921	50	36	43	22	0
10	32	1939	65	1963	12	1883	56	1921	50	36	43	22	0
11	25	1884	64	1924	12	1884	53	1924	51	36	43	22	0
12	29	1884	62	1947	7	1884	48	1972	51	36	43	22	0
13	29	1936	60	1971	12	1884	48	1898	51	36	43	22	0
14	25	1923	63	1977	10	1884	52	1982	51	36	44	21	0
15	24	1900	66	1902	18	1936	52	1934	51	36	44	21	0
16	28	1936	62	1981	18	1956	51	1982	51	36	44	21	0
17	24	1936	65	1948	19	1936	48	1930	52	36	44	21	0
18	30	1936	68	1977	18	1882	50	1968	52	36	44	21	0
19	32	1882	66	1977	18	1882	52	1991	52	37	44	21	0
20	32	1894	63	1982	23	1955	52	1961	52	37	44	21	0
21	35	1894	66	1958	18	1894	50	1881	52	37	45	20	0
22	29	1910	63	1881	23	1910	49	1968	53	37	45	20	0
23	34	1922	67	1995	24	1894	50	1983	53	37	45	20	0
24	34	1917	68	1986	25	1969	53	1986	53	37	45	20	0
25	25	1890	66	1991	17	1890	52	1932	53	37	45	20	0
26	30	1890	68	1968	10	1890	57	1932	53	37	45	20	0
27	37	1880	67	1968	14	1890	54	1972	53	37	45	20	0
28	32	1890	71	1988	17	1890	56	1901	54	37	46	19	0
29	39	1896	68	1968	20	1896	48	1940	54	37	46	19	0
FEBRUARY EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
14	1883	71	1988	- 3	1950	57	1932	51.0	36.1	43.6	599	0	

\* HDD are Heating Degree Days and CDD are Cooling Degree Days.

# HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.



**MARCH TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	31	1896	68	1905	22	1971	50	1910	54	37	46	19	0
2	26	1896	70	1926	20	1896	51	1905	54	38	46	19	0
3	29	1960	67	1994	19	1989	54	1950	54	38	46	19	0
4	34	1960	70	1889	25	1896	52	1987	54	38	46	19	0
5	36	1956	71	1889	19	1955	51	1972	54	38	46	19	0
6	40	1884	74	1889	28	1976	51	1979	55	38	46	19	0
7	41	1951	72	1905	25	1974	52	1904	55	38	46	19	0
8	38	1951	72	1953	26	1974	51	1937	55	38	46	19	0
9	37	1951	77	1905	24	1888	51	1983	55	38	47	18	0
10	39	1951	76	1892	22	1969	56	1934	55	38	47	18	0
11	35	1897	75	1934	24	1956	51	1900	55	38	47	18	0
12	31	1906	76	1934	22	1906	52	1972	55	38	47	18	0
13	33	1906	74	1934	24	1944	53	1877	56	38	47	18	0
14	38	1906	76	1926	26	1906	55	1900	56	38	47	18	0
15	42	1906	77	1947	24	1906	54	1900	56	39	47	18	0
16	42	1886	80	1947	27	1955	51	1921	56	39	47	18	0
17	43	1907	76	1947	24	1955	52	1932	56	39	47	18	0
18	40	1906	73	1928	29	1971	52	1932	56	39	47	18	0
19	41	1913	76	1928	25	1965	52	1928	56	39	48	17	0
20	39	1913	83	1875	28	1955	55	1914	57	39	48	17	0
21	40	1913	79	1915	28	1952	52	1928	57	39	48	17	0
22	40	1913	76	1939	27	1898	49	1928	57	39	48	17	0
23	43	1902	73	1982	31	1954	49	1943	57	39	48	17	0
24	44	1913	72	1960	29	1969	54	1879	57	39	48	17	0
25	39	1955	74	1966	29	1913	53	1877	57	39	48	17	0
26	42	1985	78	1889	31	1995	51	1881	57	39	48	17	0
27	44	1931	77	1994	27	1975	52	1934	58	39	48	17	0
28	43	1936	83	1930	28	1962	56	1934	58	39	49	16	0
29	42	1936	82	1923	23	1954	55	1934	58	40	49	16	0
30	43	1936	75	1923	24	1954	51	1879	58	40	49	16	0
31	40	1936	75	1911	30	1896	54	1881	58	40	49	16	0
MARCH EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
26	1896	83	1930	19	1989	56	1934	56.0	38.6	47.3	549	0	

\* HDD are Heating Degree Days and CDD are Cooling Degree Days.

# HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

DAILY TEMPERATURE

APRIL TEMPERATURE DATA  
(1871-1995)

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)					
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*	
1	37	1936	79	1987	30	1971	53	1943	58	40	49	16	0	
2	44	1901	80	1881	30	1972	52	1961	58	40	49	16	0	
3	44	1936	78	1881	30	1964	54	1881	58	40	49	16	0	
4	40	1875	75	1990	29	1955	53	1878	59	40	49	16	0	
5	47	1929	77	1977	29	1875	51	1887	59	40	49	16	0	
6	48	1980	80	1906	29	1875	54	1962	59	40	50	15	0	
7	44	1935	80	1884	28	1875	56	1926	59	40	50	15	0	
8	44	1902	78	1925	31	1975	52	1986	59	40	50	15	0	
9	45	1903	79	1985	32	1888	57	1921	59	40	50	15	0	
10	46	1979	81	1904	31	1954	56	1940	60	40	50	15	0	
11	44	1911	84	1904	33	1991	53	1936	60	41	50	15	0	
12	44	1911	87	1904	30	1970	59	1904	60	41	50	15	0	
13	44	1922	83	1875	30	1968	55	1904	60	41	50	15	0	
14	44	1894	88	1926	32	1977	57	1926	60	41	51	14	0	
15	45	1917	85	1936	31	1967	54	1926	60	41	51	14	0	
16	45	1967	87	1897	32	1964	56	1897	61	41	51	14	0	
17	47	1963	89	1897	31	1977	59	1939	61	41	51	14	0	
18	47	1961	84	1910	30	1964	55	1936	61	41	51	14	0	
19	47	1961	88	1934	31	1982	56	1989	61	42	51	14	0	
20	42	1963	90	1934	33	1975	56	1934	61	42	52	13	0	
21	48	1960	79	1907	29	1951	56	1934	62	42	52	13	0	
22	43	1961	82	1910	30	1972	55	1875	62	42	52	13	0	
23	46	1960	89	1910	32	1904	55	1934	62	42	52	13	0	
24	45	1882	85	1910	32	1950	54	1992	62	42	52	13	0	
25	48	1900	83	1926	32	1955	54	1978	62	43	53	12	0	
26	48	1950	86	1947	34	1970	54	1931	63	43	53	12	0	
27	48	1955	93	1926	32	1978	57	1926	63	43	53	12	0	
28	48	1894	91	1926	34	1973	60	1926	63	43	53	12	0	
29	49	1954	87	1957	33	1952	56	1934	63	43	53	12	0	
30	48	1899	82	1976	33	1986	57	1908	63	44	54	11	0	
APRIL EXTREMES (most recent occurrence)													NORMAL MONTHLY AVG#	
37	1936	93	1926	28	1875	60	1926	60.6	41.3	51.0	420	0		

\* HDD are Heating Degree Days and CDD are Cooling Degree Days.

# HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

**MAY TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	49	1964	83	1947	29	1954	46	1931	64	44	54	11	0
2	48	1896	89	1945	32	1964	56	1946	64	44	54	11	0
3	49	1910	89	1992	33	1964	56	1936	64	44	54	11	0
4	50	1896	89	1992	34	1962	58	1989	64	44	54	11	0
5	51	1965	94	1885	35	1978	56	1989	65	45	55	10	0
6	49	1962	91	1987	36	1965	56	1974	65	45	55	10	0
7	52	1896	93	1987	36	1965	57	1987	65	45	55	10	0
8	50	1933	92	1987	35	1965	58	1987	65	45	55	10	0
9	51	1896	89	1940	32	1894	57	1923	66	46	56	9	0
10	52	1986	86	1928	37	1963	64	1931	66	46	56	9	0
11	55	1986	91	1971	36	1916	60	1931	66	46	56	9	0
12	54	1900	92	1897	34	1887	60	1912	66	46	56	9	0
13	50	1899	96	1939	36	1963	61	1897	66	46	56	9	0
14	50	1918	95	1939	33	1964	59	1973	67	47	57	8	0
15	49	1908	87	1925	36	1964	58	1888	67	47	57	8	0
16	48	1896	88	1985	36	1876	69	1895	67	47	57	8	0
17	52	1991	90	1887	37	1966	57	1926	67	47	57	8	0
18	52	1974	89	1884	38	1877	59	1926	68	47	58	7	0
19	53	1899	91	1961	38	1882	58	1958	68	48	58	7	0
20	53	1902	93	1892	37	1975	59	1928	68	48	58	7	0
21	52	1960	87	1988	37	1909	61	1914	68	48	58	7	0
22	50	1905	90	1934	33	1960	64	1882	68	48	58	7	0
23	53	1953	90	1947	35	1964	60	1894	69	48	58	7	0
24	49	1911	93	1992	37	1955	62	1938	69	49	59	6	0
25	54	1927	90	1947	38	1975	61	1992	69	49	59	6	0
26	56	1980	92	1947	40	1922	60	1958	69	49	56	6	0
27	56	1899	90	1944	39	1966	58	1958	70	49	60	5	0
28	57	1909	100	1983	38	1954	63	1897	70	50	60	5	0
29	54	1954	99	1987	41	1978	64	1887	70	50	60	5	0
30	52	1895	93	1931	40	1955	65	1887	70	50	60	5	0
31	54	1971	94	1922	39	1966	62	1986	70	50	60	5	0
MAY EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
48	1896	100	1983	29	1954	69	1895	67.1	47.0	57.1	249	0	

\*HDD are Heating Degree Days and CDD are Cooling Degree Days.

#HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

DAILY TEMPERATURE

**JUNE TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	56	1985	94	1970	39	1966	60	1913	71	50	60	5	0
2	55	1902	98	1970	41	1977	64	1882	71	51	61	4	0
3	56	1962	94	1882	42	1976	65	1882	71	51	61	4	0
4	55	1963	94	1882	39	1875	64	1882	72	51	62	3	0
5	56	1939	92	1958	41	1966	62	1935	72	51	62	3	0
6	51	1914	97	1878	39	1899	64	1926	72	51	62	3	0
7	54	1950	97	1903	42	1899	67	1948	72	51	62	3	0
8	53	1964	95	1903	42	1892	68	1948	72	52	62	3	0
9	54	1896	95	1955	41	1897	64	1955	73	52	62	3	0
10	57	1894	94	1910	41	1916	63	1940	73	52	62	3	0
11	51	1894	97	1940	44	1952	63	1911	73	52	63	2	0
12	56	1943	91	1933	42	1965	64	1940	73	52	63	2	0
13	56	1980	96	1986	42	1976	64	1932	73	53	63	2	0
14	55	1895	89	1988	43	1945	64	1936	74	53	63	2	0
15	54	1895	95	1966	42	1880	62	1914	74	53	63	2	0
16	59	1944	95	1958	44	1955	63	1916	74	53	63	2	0
17	58	1890	99	1876	42	1991	67	1876	74	53	64	1	0
18	56	1893	100	1982	43	1954	63	1940	75	53	64	1	0
19	55	1880	95	1982	45	1955	64	1982	75	54	65	0	0
20	54	1916	95	1970	44	1964	70	1902	75	54	65	0	0
21	59	1916	96	1992	45	1942	59	1902	75	54	65	0	0
22	55	1879	100	1992	43	1874	65	1887	75	54	65	0	0
23	60	1950	97	1992	43	1920	64	1992	76	54	65	0	0
24	58	1975	99	1926	42	1885	66	1940	76	54	65	0	0
25	58	1942	101	1925	44	1976	68	1925	76	54	65	0	0
26	58	1975	94	1987	45	1976	67	1896	76	55	65	0	0
27	60	1912	97	1895	41	1965	62	1984	76	55	65	0	0
28	58	1894	95	1951	42	1964	64	1948	77	55	66	0	1
29	57	1963	99	1904	44	1919	68	1948	77	55	66	0	1
30	60	1935	100	1942	41	1949	68	1924	77	55	66	0	1
JUNE EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
51	1914	101	1925	39	1966	70	1902	74.0	52.9	63.5	91	46	

\*HDD are Heating Degree Days and CDD are Cooling Degree Days.

#HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

**JULY TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	58	1902	105	1942	46	1889	65	1915	78	55	67	0	2
2	58	1902	102	1942	43	1955	65	1922	78	55	67	0	2
3	58	1902	101	1906	45	1954	68	1922	78	55	67	0	2
4	61	1964	97	1972	45	1901	65	1882	78	56	67	0	2
5	57	1909	97	1885	47	1892	63	1926	78	56	67	0	2
6	59	1923	99	1885	46	1977	65	1883	79	56	67	0	2
7	61	1963	97	1931	46	1971	65	1883	79	56	67	0	2
8	63	1955	99	1905	45	1981	64	1883	79	56	67	0	2
9	64	1974	98	1926	47	1964	66	1895	79	56	67	0	2
10	61	1880	104	1926	46	1887	72	1926	79	56	68	0	3
11	65	1956	104	1961	46	1887	66	1990	79	56	68	0	3
12	60	1920	102	1961	47	1943	69	1906	80	56	68	0	3
13	66	1930	105	1935	43	1904	72	1906	80	56	68	0	3
14	62	1904	103	1941	46	1881	74	1935	80	56	68	0	3
15	63	1904	103	1941	46	1887	68	1917	80	57	68	0	3
16	57	1904	104	1979	49	1968	70	1941	80	57	68	0	3
17	66	1916	102	1979	47	1895	74	1941	80	57	68	0	3
18	66	1907	104	1944	47	1986	68	1912	80	57	69	0	4
19	64	1968	102	1956	48	1964	66	1985	81	57	69	0	4
20	60	1954	102	1946	49	1950	71	1913	81	57	69	0	4
21	64	1899	101	1980	49	1881	73	1938	81	57	69	0	4
22	65	1992	98	1978	49	1954	69	1928	81	57	69	0	4
23	62	1918	102	1891	46	1963	68	1939	81	57	69	0	4
24	66	1993	100	1984	50	1973	69	1928	81	57	69	0	4
25	65	1894	100	1988	48	1882	73	1928	81	57	69	0	4
26	68	1989	98	1988	48	1953	71	1939	81	57	69	0	4
27	62	1916	102	1958	47	1959	70	1939	81	57	69	0	4
28	65	1975	99	1973	48	1880	65	1958	81	57	69	0	4
29	68	1945	99	1990	50	1956	65	1974	81	57	69	0	4
30	65	1982	107	1965	47	1945	66	1907	81	57	69	0	4
31	65	1928	102	1965	48	1956	66	1948	81	58	69	0	4
JULY EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
57	1909	107	1965	43	1955	74	1935	79.9	56.5	68.2	28	127	

\*HDD are Heating Degree Days and CDD are Cooling Degree Days.

#HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

DAILY TEMPERATURE

**AUGUST TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	61	1989	95	1898	47	1963	66	1949	81	57	69	0	4
2	58	1956	100	1939	50	1959	64	1939	81	58	69	0	4
3	65	1953	99	1952	47	1950	65	1947	81	58	69	0	4
4	59	1933	100	1990	46	1889	66	1993	81	58	69	0	4
5	66	1891	100	1945	46	1909	69	1881	81	58	69	0	4
6	62	1891	102	1972	47	1878	70	1881	81	58	69	0	4
7	63	1976	104	1972	48	1893	65	1991	81	58	69	0	4
8	66	1876	107	1981	45	1887	67	1991	81	58	69	0	4
9	65	1982	105	1981	46	1880	68	1925	81	58	69	0	4
10	67	1932	107	1981	46	1880	65	1971	81	57	69	0	4
11	65	1941	102	1977	48	1899	68	1930	81	57	69	0	4
12	59	1908	104	1977	47	1876	68	1920	81	57	69	0	4
13	61	1976	96	1992	45	1949	69	1920	81	57	69	0	4
14	63	1899	97	1967	47	1982	66	1901	81	57	69	0	4
15	61	1912	102	1933	49	1935	66	1933	81	57	69	0	4
16	60	1912	102	1977	47	1969	67	1927	81	57	69	0	4
17	64	1916	105	1977	45	1970	66	1977	80	57	69	0	4
18	65	1975	93	1946	45	1973	66	1908	80	57	69	0	4
19	64	1974	94	1967	45	1895	69	1897	80	57	69	0	4
20	59	1899	95	1986	46	1959	71	1897	80	57	69	0	4
21	61	1899	96	1915	45	1955	69	1915	80	57	69	0	4
22	62	1925	98	1942	46	1874	66	1915	80	57	69	0	4
23	62	1937	101	1988	48	1951	64	1933	80	57	69	0	4
24	60	1963	99	1982	46	1889	66	1985	80	56	68	0	3
25	62	1977	94	1967	46	1905	66	1933	80	56	68	0	3
26	58	1899	100	1986	44	1895	64	1935	79	56	68	0	3
27	59	1881	98	1935	46	1882	68	1935	79	56	68	0	3
28	60	1953	102	1967	43	1876	67	1935	79	56	67	0	2
29	60	1880	95	1944	43	1876	65	1923	79	56	67	0	2
30	61	1897	98	1987	44	1920	63	1978	79	55	67	0	2
31	63	1896	102	1987	44	1951	66	1987	78	55	67	0	2
AUGUST EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
58	1956	107	1981	43	1876	71	1897	80.3	56.9	68.7	35	147	

\*HDD are Heating Degree Days and CDD are Cooling Degree Days.

#HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

**SEPTEMBER TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	61	1960	98	1988	44	1973	63	1979	78	55	67	0	2
2	59	1912	105	1988	42	1960	64	1927	78	55	66	0	1
3	58	1887	95	1934	42	1889	64	1934	78	55	66	0	1
4	57	1897	98	1955	43	1956	63	1931	78	54	66	0	1
5	59	1919	101	1944	44	1956	62	1985	77	54	66	0	1
6	60	1910	97	1958	45	1960	67	1898	77	54	66	0	1
7	62	1914	99	1981	42	1992	63	1923	77	54	65	0	0
8	60	1914	93	1993	42	1961	64	1984	77	54	65	0	0
9	59	1920	94	1948	41	1889	62	1907	77	53	65	0	0
10	60	1930	98	1944	41	1889	61	1963	76	53	65	0	0
11	54	1895	93	1922	38	1889	63	1922	76	53	65	0	0
12	53	1895	92	1975	38	1889	66	1902	76	53	64	1	0
13	56	1906	93	1988	37	1970	63	1918	76	53	64	1	0
14	57	1900	97	1937	41	1901	67	1912	75	52	64	1	0
15	57	1955	96	1981	40	1970	62	1888	75	52	64	1	0
16	57	1910	90	1918	41	1965	64	1888	75	52	63	2	0
17	58	1944	95	1938	34	1965	60	1890	74	52	63	2	0
18	60	1925	93	1991	36	1965	62	1927	74	52	63	2	0
19	57	1968	93	1974	39	1957	61	1984	74	51	63	2	0
20	58	1895	96	1952	39	1957	64	1883	73	51	62	3	0
21	57	1901	94	1952	36	1895	63	1939	73	51	62	3	0
22	57	1948	93	1990	34	1961	61	1939	73	51	62	3	0
23	50	1934	94	1974	37	1908	60	1940	73	50	61	4	0
24	52	1933	96	1974	35	1908	61	1982	72	50	61	4	0
25	56	1920	94	1991	35	1908	59	1990	72	50	61	4	0
26	55	1948	92	1967	38	1961	59	1917	72	50	61	4	0
27	56	1905	94	1967	37	1961	60	1976	71	49	60	5	0
28	53	1901	89	1989	37	1983	60	1938	71	49	60	5	0
29	54	1891	89	1993	37	1954	61	1876	70	49	60	5	0
30	53	1919	88	1987	35	1954	60	1951	70	49	59	6	0
SEPTEMBER EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
50	1934	105	1988	34	1965	67	1912	74.6	52.0	63.3	102	51	

\*HDD are Heating Degree Days and CDD are Cooling Degree Days.

#HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.

DAILY TEMPERATURE

OCTOBER TEMPERATURE DATA  
(1871-1995)

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	50	1898	92	1987	33	1950	60	1896	70	48	59	6	0
2	52	1940	90	1970	37	1954	58	1951	70	48	59	6	0
3	54	1893	86	1979	38	1964	60	1947	69	48	58	7	0
4	53	1890	86	1932	34	1916	65	1932	69	48	58	7	0
5	53	1938	90	1980	37	1972	58	1935	68	47	58	7	0
6	53	1883	89	1952	37	1974	60	1910	68	47	57	8	0
7	54	1949	83	1943	33	1970	61	1979	68	47	57	8	0
8	51	1893	84	1917	32	1985	61	1928	67	47	57	8	0
9	51	1893	86	1936	30	1985	58	1953	67	46	57	8	0
10	52	1893	88	1936	35	1960	60	1940	66	46	56	9	0
11	50	1881	86	1991	35	1890	62	1918	66	46	56	9	0
12	49	1881	79	1937	34	1886	57	1936	66	46	56	9	0
13	47	1892	80	1939	32	1881	58	1940	65	45	55	10	0
14	45	1881	82	1991	31	1969	58	1988	65	45	55	10	0
15	50	1984	80	1991	33	1992	60	1988	64	45	55	10	0
16	48	1881	79	1958	30	1946	58	1928	64	45	54	11	0
17	48	1925	79	1952	33	1971	58	1940	64	45	54	11	0
18	46	1908	80	1940	31	1949	60	1940	63	44	54	11	0
19	51	1984	79	1940	27	1949	62	1940	63	44	54	11	0
20	50	1984	76	1938	28	1949	60	1901	62	44	53	12	0
21	47	1961	77	1937	30	1949	55	1963	62	44	53	12	0
22	50	1991	78	1937	33	1980	57	1944	62	44	53	12	0
23	48	1943	78	1901	32	1964	58	1929	61	43	52	13	0
24	50	1956	73	1974	30	1958	57	1891	61	43	52	13	0
25	44	1919	76	1901	32	1874	60	1880	61	43	52	13	0
26	45	1919	74	1987	30	1963	58	1906	60	43	52	13	0
27	45	1956	75	1944	30	1919	60	1937	60	43	51	14	0
28	43	1991	70	1915	26	1946	56	1888	59	42	51	14	0
29	40	1935	72	1887	26	1971	55	1914	59	42	51	14	0
30	37	1935	72	1890	27	1991	56	1987	58	42	50	15	0
31	35	1935	71	1954	28	1995	55	1987	58	42	50	15	0
OCTOBER EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
35	1935	92	1987	26	1971	65	1932	64.0	44.9	54.5	326	0	

\*HDD are Heating Degree Days and CDD are Cooling Degree Days.

#HDD and CDD monthly average values based on actual occurrences rather than the total of daily normal values.



**NOVEMBER TEMPERATURE DATA  
(1871-1995)**

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	37	1935	70	1969	28	1893	55	1937	58	42	50	15	0
2	39	1935	73	1890	29	1973	57	1909	57	42	50	15	0
3	41	1935	73	1975	23	1935	54	1980	57	42	49	15	0
4	44	1925	69	1980	29	1935	54	1927	56	41	49	16	0
5	40	1973	68	1987	28	1971	54	1893	56	41	49	16	0
6	43	1925	67	1980	27	1971	54	1979	56	41	48	17	0
7	43	1945	67	1894	29	1959	53	1995	55	41	48	17	0
8	43	1898	66	1905	27	1977	52	1899	55	41	48	17	0
9	38	1919	67	1904	28	1959	57	1990	55	41	48	17	0
10	38	1911	66	1930	25	1978	53	1989	54	40	47	18	0
11	35	1911	65	1904	24	1911	56	1989	54	40	47	18	0
12	28	1955	66	1974	19	1978	54	1906	54	40	47	18	0
13	30	1955	67	1995	18	1978	59	1906	53	40	47	18	0
14	27	1955	66	1995	15	1955	55	1896	53	40	46	19	0
15	26	1955	63	1895	13	1955	53	1995	53	40	46	19	0
16	25	1955	68	1976	20	1955	56	1919	52	39	46	19	0
17	28	1955	67	1932	23	1961	56	1932	52	39	46	19	0
18	38	1977	66	1897	25	1985	53	1920	52	39	45	20	0
19	37	1896	64	1885	25	1956	52	1911	51	39	45	20	0
20	30	1900	64	1936	24	1900	53	1910	51	39	45	20	0
21	32	1900	66	1917	19	1900	54	1904	51	39	45	20	0
22	31	1985	63	1909	20	1985	50	1933	50	38	44	21	0
23	27	1985	63	1959	17	1985	55	1959	50	38	44	21	0
24	25	1985	64	1949	13	1985	58	1949	50	38	44	21	0
25	29	1985	63	1977	20	1985	52	1950	50	38	44	21	0
26	28	1896	61	1949	18	1952	52	1949	49	38	44	21	0
27	24	1896	63	1947	16	1896	52	1899	49	38	43	22	0
28	22	1896	61	1907	14	1896	56	1995	49	37	43	22	0
29	23	1896	62	1909	11	1896	54	1995	48	37	43	22	0
30	26	1985	63	1903	19	1896	54	1921	48	37	43	22	0
NOVEMBER EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
22	1896	73	1975	11	1896	59	1906	52.6	39.5	46.1	567	0	

\* HDD are Heating Degree Days and CDD are Cooling Degree Days.

# HDD and CCD monthly average values based on actual occurrences rather than the total of daily normal values.

DAILY TEMPERATURE

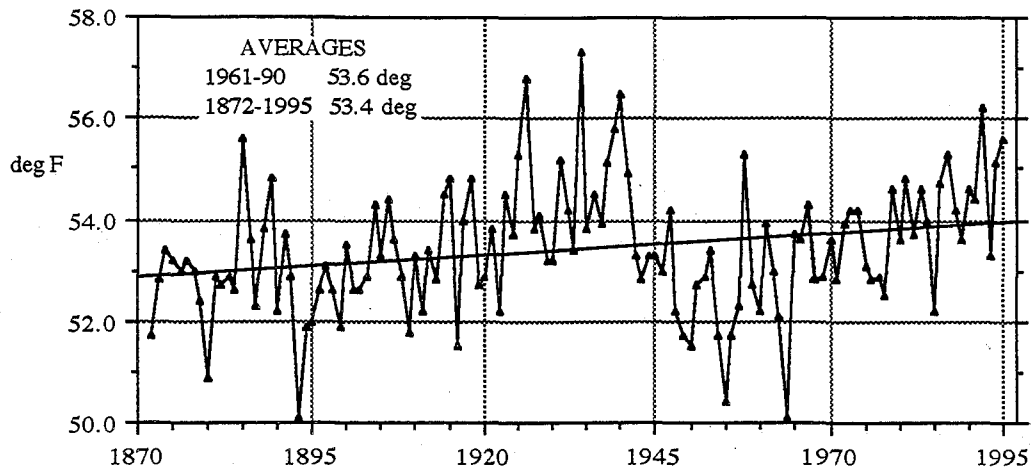
DECEMBER TEMPERATURE DATA  
(1871-1995)

Day	RECORD MAXIMUM TEMPERATURES				RECORD MINIMUM TEMPERATURES				NORMALS (based on 1961-90 data)				
	Lowest	Year	Highest	Year	Lowest	Year	Highest	Year	Max	Min	Mean	HDD*	CDD*
1	24	1985	63	1926	20	1985	54	1975	48	37	42	23	0
2	35	1931	62	1958	22	1880	55	1975	48	37	42	23	0
3	28	1880	62	1979	20	1880	53	1975	48	36	42	23	0
4	28	1880	64	1945	19	1880	49	1900	47	36	42	23	0
5	27	1972	59	1970	20	1972	51	1882	47	36	42	23	0
6	27	1972	60	1988	22	1972	51	1936	47	36	41	24	0
7	25	1972	61	1938	18	1972	54	1938	47	36	41	24	0
8	23	1932	63	1875	8	1972	52	1875	47	36	41	24	0
9	23	1919	60	1987	15	1972	52	1933	46	35	41	24	0
10	18	1919	65	1993	16	1972	55	1933	46	35	42	24	0
11	20	1919	63	1880	11	1919	54	1924	46	35	41	24	0
12	17	1919	63	1995	4	1919	50	1895	46	35	41	24	0
13	17	1919	65	1886	3	1919	53	1918	46	35	40	25	0
14	19	1919	60	1882	6	1919	52	1882	46	35	40	25	0
15	28	1922	59	1959	13	1919	50	1891	45	35	40	25	0
16	25	1884	60	1974	6	1964	50	1917	45	35	40	25	0
17	17	1964	60	1937	7	1964	51	1917	45	34	40	25	0
18	17	1964	59	1931	11	1964	52	1936	45	34	40	25	0
19	21	1924	60	1900	13	1924	48	1972	45	34	40	25	0
20	19	1990	60	1900	13	1967	53	1906	45	34	40	25	0
21	20	1990	63	1940	12	1990	54	1933	45	34	39	26	0
22	21	1990	59	1964	13	1990	53	1933	45	34	39	26	0
23	20	1983	64	1950	3	1879	48	1929	45	34	39	26	0
24	20	1884	60	1980	8	1879	48	1929	45	34	39	26	0
25	25	1884	64	1980	13	1924	60	1980	45	34	39	26	0
26	26	1924	63	1980	12	1924	55	1980	45	34	39	26	0
27	30	1916	61	1980	22	1884	56	1917	44	34	39	26	0
28	32	1916	64	1917	19	1990	59	1917	44	34	39	26	0
29	22	1990	65	1917	14	1990	57	1917	44	34	39	26	0
30	14	1968	61	1917	8	1968	56	1917	44	34	39	26	0
31	19	1978	60	1917	9	1968	55	1917	44	33	39	26	0
DECEMBER EXTREMES (most recent occurrence)									NORMAL MONTHLY AVG#				
14	1968	65	1993	3	1919	60	1980	45.6	34.8	40.2	769	0	

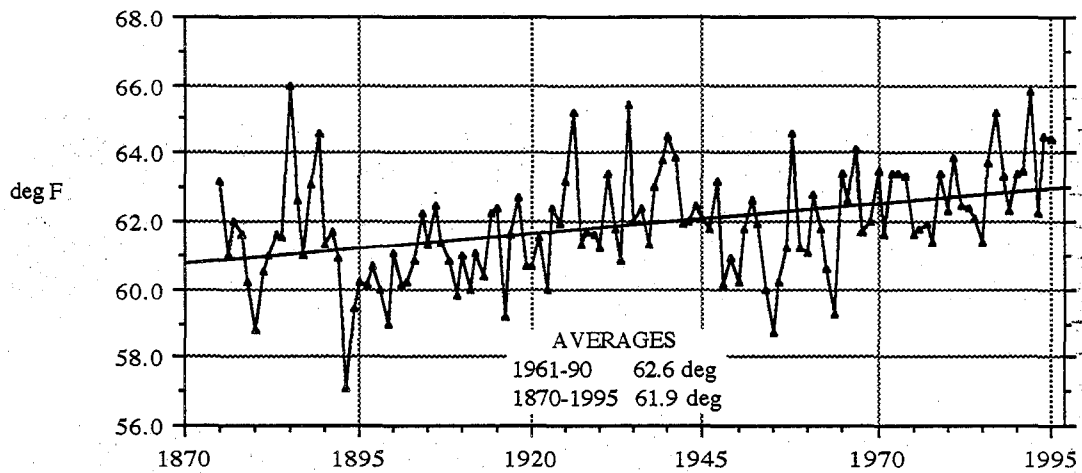
\* HDD are Heating Degree Days and CDD are Cooling Degree Days.

# HDD and CCD monthly average values based on actual occurrences rather than the total of daily normal values.

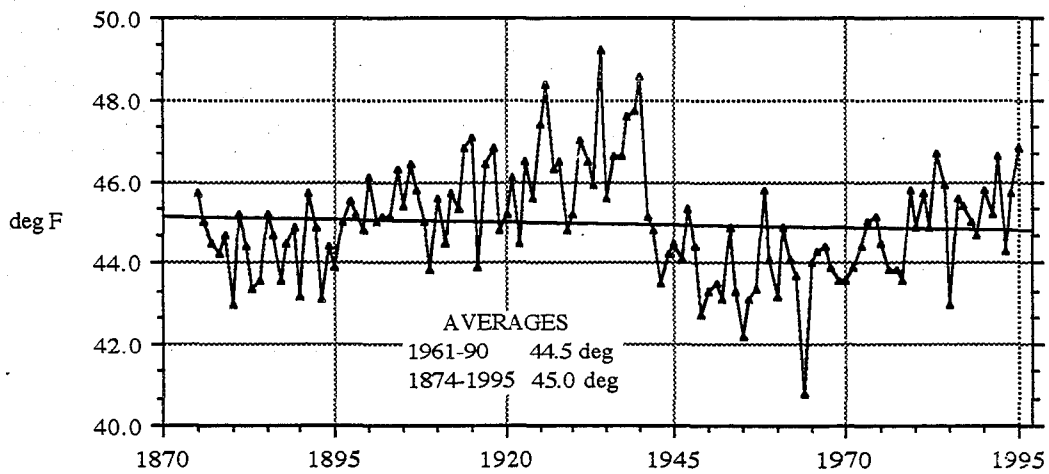
**ANNUAL MEAN TEMPERATURE**



**ANNUAL AVERAGE MAXIMUM TEMPERATURE**



**ANNUAL AVERAGE MINIMUM TEMPERATURE**



**NUMBER OF DAYS PER MONTH WITH MAXIMUM TEMPERATURE...**

----- HIGHS of 90+ DEG -----						----- HIGHS of 32 DEG or LESS ----					
MONTH	AVG*	MOST YEAR		LEAST YEAR		AVG*	MOST YEAR		LEAST YEAR		
January	0	0	1995	0	1995	2.2	18	1930	0	Many	
February	0	0	1995	0	1995	0.3	7	1936	0	Many	
March	0	0	1995	0	1995	< 0.5	1	1960	0	Many	
April	0	2	1926	0	1995	0	--	--	--	--	
May	0.3	3	1987	0	1995	0	--	--	--	--	
June	1.2	6	1970	0	1994	0	--	--	--	--	
July	3.6	11	1985	0	1993	0	--	--	--	--	
August	3.8	13	1967	0	1989	0	--	--	--	--	
September	1.8	7	1991	0	1985	0	--	--	--	--	
October	0.1	1	1987	0	1995	0	--	--	--	--	
November	0	0	1995	0	1995	0.2	7	1985	0	Many	
December	0	0	1995	0	1995	0.9	11	1972	0	Many	
<b>ANNUALLY</b>	<b>10.8</b>	<b>23</b>	<b>1987</b>	<b>0</b>	<b>1954</b>	<b>3.6</b>	<b>21</b>	<b>1916</b>	<b>0</b>	<b>1994</b>	

**NUMBER OF DAYS PER MONTH WITH MINIMUM TEMPERATURE OF...**

----- LOWS of 32 DEG or LESS -----						----- LOWS of 0 DEG or LESS ----					
MONTH	AVG*	MOST YEAR		LEAST YEAR		AVG*	MOST YEAR		LEAST YEAR		
January	13.1	30	1949	0	1939	< 0.05	2	1888	0	Many	
February	8.2	21	1887	0	1961	< 0.05	1	1950	0	Many	
March	4.6	14	1955	0	1986	0	--	--	--	--	
April	1.0	4	1972	0	1995	0	--	--	--	--	
May	0.1	2	1964	0	1995	0	--	--	--	--	
June	0	0	1995	0	1994	0	--	--	--	--	
July	0	0	1995	0	1993	0	--	--	--	--	
August	0	0	1995	0	1989	0	--	--	--	--	
September	0	0	1995	0	1985	0	--	--	--	--	
October	0.6	4	1987	0	1995	0	--	--	--	--	
November	5.2	19	1978	0	1995	0	--	--	--	--	
December	9.6	25	1985	0	1953	0	--	--	--	--	
<b>ANNUALLY</b>	<b>42.4</b>	<b>84</b>	<b>1985</b>	<b>0</b>	<b>1934</b>	<b>&lt; 0.05</b>	<b>2</b>	<b>1950</b>	<b>0</b>	<b>Many years</b>	

NOTES: Most recent year of occurrence listed.

\* Averages are the Climatic Normals for 1961-90.

**CUMULATIVE FREQUENCY OF MAXIMUM TEMPERATURE**  
(based on data from 1926-1990)

How to use the table: For example, the maximum temperature in July is warmer than 75 degrees 70.0% of the time.

TEMP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
≥105	0	0	0	0	0	0	0.2	0.2	0.1	0	0	0	< 0.05
≥100	0	0	0	0	0.1	0.1	1.5	1.5	0.1	0	0	0	0.3
≥95	0	0	0	0	0.2	1.1	4.5	4.4	0.9	0	0	0	0.9
≥90	0	0	0	0.2	1.1	4.4	11.6	12.3	4.5	0.2	0	0	2.9
≥85	0	0	0	0.6	5.0	12.1	26.9	25.9	12.8	1.0	0	0	7.1
≥80	0	0	0.1	2.2	11.4	23.4	47.4	44.5	25.4	2.7	0	0	13.2
≥75	0	0	0.5	7.6	21.9	39.3	70.0	70.2	43.6	9.1	0	0	22.0
≥70	0	0.1	4.0	17.9	36.9	61.9	89.5	90.4	66.1	20.7	0.2	0	32.5
≥65	0.1	1.1	11.0	31.1	55.7	85.0	98.4	98.5	87.6	42.4	2.4	0	43.0
≥60	1.3	7.2	25.1	52.1	81.0	97.4	100	99.9	98.2	71.3	12.7	1.7	54.2
≥55	8.5	23.3	51.6	80.5	96.6	99.8	100	100	99.8	91.3	39.9	9.9	67.0
≥50	26.9	54.7	82.5	96.3	99.9	100	100	100	100	98.7	70.4	32.2	80.2
≥45	54.7	82.3	96.5	99.7	100	100	100	100	100	99.7	89.8	61.3	90.3
≥40	76.6	93.0	99.4	99.9	100	100	100	100	100	99.9	97.5	86.6	96.1
≥35	88.2	97.0	99.9	100	100	100	100	100	100	100	99.1	95.4	98.3
≥30	95.5	99.0	99.9	100	100	100	100	100	100	100	99.4	98.0	99.3
≥25	98.4	99.6	100	100	100	100	100	100	100	100	100	99.0	99.8
≥20	99.8	99.8	100	100	100	100	100	100	100	100	100	99.6	99.9
≥15	100	100	100	100	100	100	100	100	100	100	100	99.9	100*
≥10	100	100	100	100	100	100	100	100	100	100	100	100	100

NORMAL MAXIMUM TEMPERATURES (based on data from 1961-90)

T (deg F) 45.4 51.0 56.0 60.6 67.1 74.0 79.9 80.3 74.6 64.0 52.6 45.6 62.6

**CUMULATIVE FREQUENCY OF MINIMUM TEMPERATURE**  
(based on data from 1926-1990)

How to use the table: For example, the minimum temperature in May is warmer than 45 degrees 74.1% of the time.

TEMP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
≥70	0	0	0	0	0	0	0.5	0	0	0	0	0	< 0.05
≥65	0	0	0	0	0	0.4	2.5	1.7	0	0.1	0	0	0.4
≥60	0	0	0	0.1	0.6	6.1	19.4	24.3	5.6	0.4	0	0.1	4.8
≥55	0	0.1	0.2	0.9	7.8	38.2	72.5	73.9	36.2	5.9	0.5	0.2	19.9
≥50	0.9	1.2	2.0	9.5	33.2	79.4	96.1	95.3	71.6	29.1	5.6	1.4	35.7
≥45	6.5	8.3	15.8	33.1	74.1	98.2	99.9	99.8	91.8	60.7	25.7	8.3	52.1
≥40	23.8	33.6	48.7	69.2	95.1	99.9	100	100	98.6	85.0	54.5	31.2	70.1
≥35	50.3	63.3	79.3	92.8	99.5	100	100	100	99.9	96.8	78.9	61.3	85.3
≥30	74.9	85.8	95.0	99.9	99.9	100	100	100	100	99.6	92.1	83.4	94.2
≥25	87.4	95.1	99.4	100	100	100	100	100	100	100	98.1	94.2	97.8
≥20	93.8	97.9	99.9	100	100	100	100	100	100	100	99.5	97.6	99.1
≥15	97.8	99.4	100	100	100	100	100	100	100	100	99.9	99.0	99.7
≥10	99.5	99.7	100	100	100	100	100	100	100	100	100	99.7	99.9
≥5	99.9	99.8	100	100	100	100	100	100	100	100	100	100	100*
≥0	99.9	99.9	100	100	100	100	100	100	100	100	100	100	100*
≥-5	100	100	100	100	100	100	100	100	100	100	100	100	100

NORMAL MINIMUM TEMPERATURES (based on data from 1961-90)

T (deg F) 33.7 36.1 38.6 41.3 47.0 52.9 56.5 56.9 52.0 44.9 39.5 34.8 44.5

\* Actual value is slightly less than 100. Due to rounding of the decimal point, the value is listed as 100%.

HOT SPELLS/COLD SNAPS

**LONGEST HOT SPELLS AND COLD SNAPS  
(1874-1995)**

<u>CONSECUTIVE DAYS:</u>	<u>DATES</u>	<u>TEMPERATURES</u>
HIGHS of 90 Deg or Above	8 August 12-19, 1967	92/95/97/98/97/92/91/94
	7 August 3-9, 1972	94/92/95/102/104/96/91
	7 September 4-10, 1944	93/101/90/93/92/92/98
	7 July 12-18, 1911	91/97/92/94/97/95/94
	7 July 17-23, 1988	97/95/93/93/94/93/90
	6 Occurs many times	
HIGHS of 100 Deg or Above	5 July 13-17, 1941	101/103/103/102/100
	4 August 8-10, 1981	103/107/105/107
	3 July 19-21, 1981	102/103/101
	3 August 10-12, 1977	101/102/104
	3 June 30-July 3, 1942	100/105/102
HIGHS of 32 Deg or Below	19 January 8-26, 1930	32/32/29/27/30/28/26/23/22/18 19/26/26/24/22/26/30/32/30
	12 January 18-29, 1956	30/26/29/32/31/30/30/26/28/22 26/25
	10 December 4-13, 1972	32/27/27/25/26/28/28/24/31/32
	9 Jan 27-Feb 4, 1950	22/25/20/25/16/25/18/20/30
	7 Dec 29-Jan 4, 1978-79	29/24/19/21/25/31/31
LOWS of 32 Deg or Below	38 Jan 1-Feb 7, 1949	30/25/22/22/24/27/32/23/16/16 19/19/16/23/26/26/29/26/23/15 22/9/11/10/11/18/19/10/26/30 27/27/29/27/29/28/32/32
	25 Dec 9-Jan 2, 1985-86	30/26/22/23/25/25/29/27/26/25 21/26/22/22/23/25/23/23/24/24 25/21/29/28/29
	24 January 6-29, 1930	30/24/25/21/20/18/18/17/19/19 15/13/14/16/16/15/15/18/19/19 22/27/24/31
	22 January 2-23, 1888	32/30/26/20/17/12/10/10/12/7 28/11/4/-2/0/6/8/14/20/19/19/20
	20 Jan 27-Feb 15, 1929	20/16/15/18/18/27/28/29/27/26 22/16/19/16/18/17/20/19/22/24
LOWS of 10 Deg or Below	7 Jan 28-Feb 3, 1950	10/8/10/-2/1/-3/4
	6 January 8-13, 1909	10/10/10/9/6/8
	5 January 14-18, 1888	4/-2/0/6/8
	4 January 13-16, 1875	4/3/10/9
	2 December 30-31, 1968	8/9

## MONTHLY MEAN MAXIMUM TEMPERATURES (1871-1995)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
OFFICIAL RECORDS START NOVEMBER 1, 1871													
1871													
1872	Maximum Temperature Data missing from 1871-June 1874												
1873													
1874	---	---	---	---	---	---	77.8	73.5	71.8	66.1	51.3	48.3	---
1875	35.9	47.9	50.6	66.6	64.1	70.2	82.9	77.0	74.2	66.0	50.9	52.7	63.2
1876	46.0	51.8	51.5	57.9	63.7	73.7	75.3	73.5	72.9	65.2	54.0	47.0	61.0
1877	48.1	54.0	57.0	62.3	64.8	70.7	76.5	76.6	68.8	61.4	54.5	48.3	62.0
1878	47.0	51.3	59.2	60.5	67.7	76.3	74.5	77.5	68.8	58.6	52.6	44.7	61.6
1879	43.5	50.2	55.5	60.8	62.7	68.9	75.2	78.3	73.5	59.0	50.2	43.5	60.2
1880	45.7	43.3	48.5	59.5	62.8	69.8	76.7	73.6	69.8	62.1	48.3	45.1	58.8
1881	44.3	50.6	57.3	63.2	67.2	69.9	75.2	73.3	69.5	55.8	50.1	49.5	60.5
1882	45.4	44.0	52.6	57.8	68.2	74.8	79.2	77.4	72.4	58.1	51.3	51.4	61.0
1883	44.3	42.0	61.8	59.0	69.8	75.7	80.0	73.8	72.3	58.4	52.8	49.0	61.6
1884	46.3	44.4	55.6	65.1	73.6	74.9	75.0	81.9	66.5	61.9	54.6	37.5	61.5
1885	41.6	53.2	63.5	68.3	74.5	73.7	83.1	82.5	73.8	69.1	57.6	50.0	66.0
1886	43.3	53.4	54.3	59.9	69.9	75.5	81.2	79.9	74.6	60.2	48.8	50.8	62.6
1887	47.7	38.4	58.8	59.5	69.3	71.4	78.5	75.8	71.9	63.4	50.6	47.0	61.0
1888	36.5	51.6	55.7	66.5	75.1	71.3	80.3	81.8	77.3	63.7	49.1	48.6	63.1
1889	44.7	53.4	63.9	65.2	70.9	79.4	84.4	77.1	73.4	65.6	54.1	43.0	64.6
1890	36.7	45.1	52.4	63.2	72.5	71.5	76.6	76.9	74.6	61.9	55.8	48.3	61.3
1891	48.8	42.3	51.8	60.5	70.4	68.7	80.5	82.1	70.1	65.0	53.6	46.1	61.7
1892	44.7	50.0	57.4	56.8	69.2	72.4	75.0	78.5	72.7	61.2	50.5	42.7	60.9
1893	39.5	42.9	49.9	51.1	62.5	65.3	75.1	77.3	65.2	56.3	51.4	48.5	57.1
1894	44.9	42.9	50.7	57.1	64.5	66.3	78.8	80.9	68.3	59.5	54.5	44.3	59.4
1895	42.1	48.6	54.1	61.2	64.0	72.7	75.8	76.9	65.7	65.9	50.3	45.1	60.2
1896	48.6	52.1	53.4	54.1	59.6	70.5	81.5	74.7	70.9	64.7	43.2	48.2	60.1
1897	43.4	47.4	45.7	65.6	71.9	69.1	74.1	82.3	68.7	62.4	49.9	47.8	60.7
1898	42.9	50.6	51.3	60.6	65.5	71.3	77.2	77.8	71.5	60.2	49.0	42.1	60.0
1899	45.0	45.0	50.9	56.7	57.5	67.4	77.6	69.1	74.6	58.8	57.1	47.7	59.0
1900	49.3	47.1	59.5	60.9	64.4	72.4	77.1	72.3	68.6	59.3	51.5	50.3	61.1
1901	44.7	48.8	53.7	57.3	65.0	65.4	72.8	80.2	67.0	67.1	53.8	45.3	60.1
1902	43.7	49.9	50.5	56.7	63.5	71.0	75.2	78.8	72.8	64.7	50.9	44.5	60.2
1903	47.1	48.4	53.9	57.6	66.3	73.3	74.0	75.6	71.9	64.0	51.1	45.8	60.8
1904	46.0	46.1	48.7	63.9	67.7	73.6	77.5	79.8	74.7	64.7	56.5	47.7	62.2
1905	45.0	48.9	58.0	65.6	64.4	70.1	80.2	76.8	71.0	58.6	51.8	45.0	61.3
1906	47.4	50.0	52.7	66.6	65.5	69.3	84.8	80.4	71.7	63.4	50.8	47.4	62.5
1907	38.8	51.2	51.3	61.4	69.3	71.7	78.5	73.9	71.9	64.2	55.5	48.8	61.4
1908	47.4	48.4	53.2	62.2	60.9	71.1	80.4	76.5	70.9	60.4	55.1	43.3	60.8
1909	38.0	48.2	55.2	60.0	64.3	73.1	73.2	76.7	73.8	62.4	52.3	40.4	59.8
1910	42.3	44.5	60.8	62.8	69.7	69.3	78.1	74.3	69.2	62.4	51.7	46.9	61.0
1911	42.6	46.0	58.8	58.4	62.2	68.6	81.1	77.0	66.0	62.5	51.6	45.5	60.0
1912	46.1	50.8	54.5	58.0	68.8	73.6	76.9	75.1	72.3	59.3	52.4	45.9	61.1
1913	42.8	46.1	50.9	59.4	66.4	72.1	78.2	78.8	72.7	60.4	52.1	44.3	60.4

MONTHLY MAXTEMP

MONTHLY MEAN MAXIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1914	50.5	48.0	58.0	62.7	71.6	70.5	80.1	79.1	67.3	64.1	52.5	41.5	62.2
1915	43.6	51.2	60.6	65.7	66.5	72.0	76.1	82.7	71.7	63.3	49.9	46.1	62.4
1916	34.1	48.0	53.2	62.1	63.3	71.6	72.7	78.5	72.4	63.1	49.1	41.8	59.2
1917	44.3	46.4	48.6	55.9	61.6	72.0	80.6	82.1	71.5	66.9	57.4	52.5	61.6
1918	49.5	47.2	53.7	63.3	64.5	78.8	78.4	77.3	78.0	63.5	51.7	46.9	62.7
1919	47.6	47.1	55.5	61.9	66.8	70.8	79.8	80.1	71.4	58.3	50.3	38.5	60.7
1920	44.6	50.0	52.8	55.8	65.7	71.8	78.9	80.6	69.1	59.0	52.7	47.7	60.7
1921	46.4	50.6	54.7	58.9	66.5	72.9	76.6	77.5	69.7	65.5	54.5	44.0	61.5
1922	40.4	45.5	49.8	56.4	67.9	76.2	79.6	77.2	73.9	62.1	48.8	42.5	60.0
1923	46.9	43.2	55.5	63.5	66.1	71.7	77.5	81.5	74.7	64.8	57.3	46.3	62.4
1924	43.5	53.8	53.6	63.4	72.4	74.7	78.2	75.9	73.7	61.4	50.5	41.3	61.9
1925	49.4	51.6	55.4	62.5	71.0	73.5	81.3	76.1	73.1	64.4	51.2	50.9	63.2
1926	47.5	54.5	63.4	70.4	68.1	77.7	82.8	79.6	70.9	65.5	56.5	45.6	65.2
1927	43.2	51.8	54.3	61.3	62.9	73.7	78.9	79.9	69.5	62.5	54.8	42.4	61.3
1928	43.2	50.7	57.5	58.7	74.1	69.8	79.2	78.3	70.2	61.2	51.9	45.2	61.7
1929	39.3	41.9	54.6	57.4	68.3	71.3	80.0	80.9	75.6	67.6	51.8	49.9	61.6
1930	32.6	53.1	58.9	64.5	63.8	71.9	77.6	80.7	72.4	61.4	52.3	44.7	61.2
1931	49.8	51.2	55.9	65.2	73.5	72.6	82.1	81.1	71.5	64.0	49.6	44.4	63.4
1932	44.2	47.1	53.5	61.5	66.5	76.5	75.7	77.3	77.2	64.5	55.1	42.7	61.8
1933	43.6	43.8	54.0	61.5	61.0	71.4	79.1	80.4	67.4	65.3	51.6	50.5	60.8
1934	51.5	56.4	64.0	70.0	70.8	74.0	76.8	80.5	72.3	65.5	54.9	48.1	65.4
1935	46.0	52.5	50.3	60.5	68.9	74.4	78.7	79.7	78.1	60.5	48.2	46.6	62.0
1936	48.5	38.9	52.5	64.5	70.7	73.8	77.7	80.4	73.2	68.2	53.0	47.3	62.4
1937	34.4	47.0	56.1	57.1	68.4	74.8	78.5	76.6	72.5	67.5	54.1	49.0	61.3
1938	46.5	48.1	53.4	63.3	69.8	75.3	82.8	76.7	77.6	64.6	49.6	48.1	63.0
1939	47.9	46.0	57.5	66.1	70.9	69.7	80.5	81.5	75.1	63.6	56.4	51.0	63.8
1940	47.3	52.0	59.2	63.5	73.3	79.2	79.2	81.9	73.7	65.5	49.7	49.0	64.5
1941	47.4	55.1	63.5	65.8	67.1	71.6	84.5	77.6	68.8	62.5	54.8	47.7	63.9
1942	39.8	49.2	55.6	62.1	65.1	70.4	80.2	80.5	76.2	65.5	50.4	47.7	61.9
1943	40.0	52.6	53.4	64.1	65.2	69.6	78.9	78.0	79.5	62.5	53.5	46.3	62.0
1944	45.5	49.0	54.7	59.9	68.4	71.7	80.2	78.0	77.8	67.9	51.6	44.8	62.5
1945	48.5	50.8	52.0	58.7	68.4	73.0	82.0	80.4	72.1	64.1	50.3	44.9	62.1
1946	46.7	49.4	54.4	61.5	70.6	70.6	79.1	80.0	72.5	58.8	51.0	47.2	61.8
1947	43.6	53.8	59.8	64.6	73.3	71.1	77.2	76.9	75.6	61.8	52.6	48.3	63.2
1948	45.7	47.5	52.4	56.5	65.0	75.9	76.5	74.2	72.7	62.3	49.5	42.8	60.1
1949	34.5	45.2	53.0	63.0	69.8	72.9	77.1	77.4	75.0	57.6	58.4	46.3	60.9
1950	32.8	45.5	51.5	57.9	65.8	71.3	79.0	81.8	74.5	58.7	51.6	51.4	60.2
1951	44.5	49.7	49.4	66.0	67.0	77.1	78.4	77.9	76.0	61.6	51.2	42.6	61.8
1952	40.4	48.4	52.4	64.4	68.5	69.4	80.9	79.6	79.0	71.8	49.5	46.8	62.6
1953	52.0	51.3	53.5	58.8	63.3	66.4	78.0	76.1	74.6	64.4	55.0	49.1	61.9
1954	44.2	49.8	54.0	59.3	67.4	66.2	72.6	71.6	69.9	63.0	55.8	46.0	60.0
1955	44.8	47.3	49.2	55.0	63.0	70.7	72.2	77.2	71.9	61.0	46.9	44.7	58.7
1956	45.2	40.9	51.8	63.6	69.7	67.6	80.1	75.7	72.0	59.0	50.6	46.0	60.2
1957	36.5	50.1	52.9	61.4	67.5	71.5	76.6	75.2	79.1	61.3	53.0	49.3	61.2

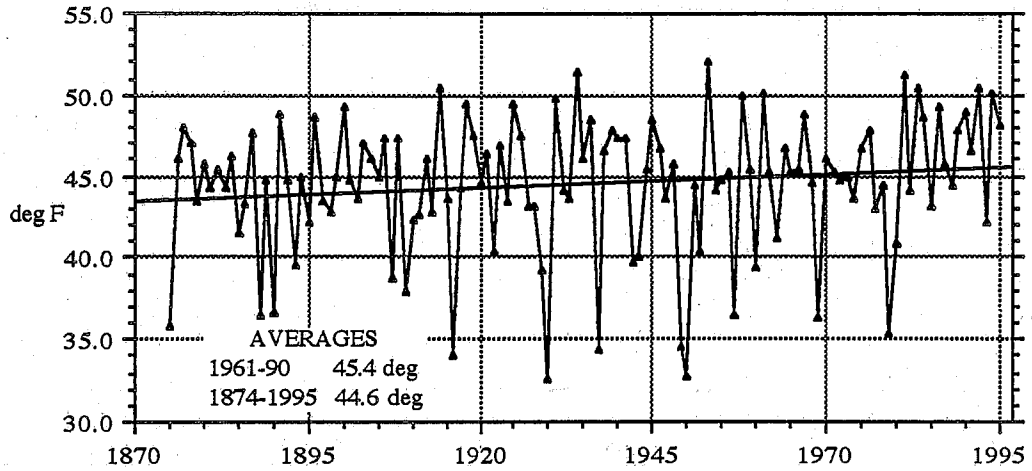


MONTHLY MAX TEMP

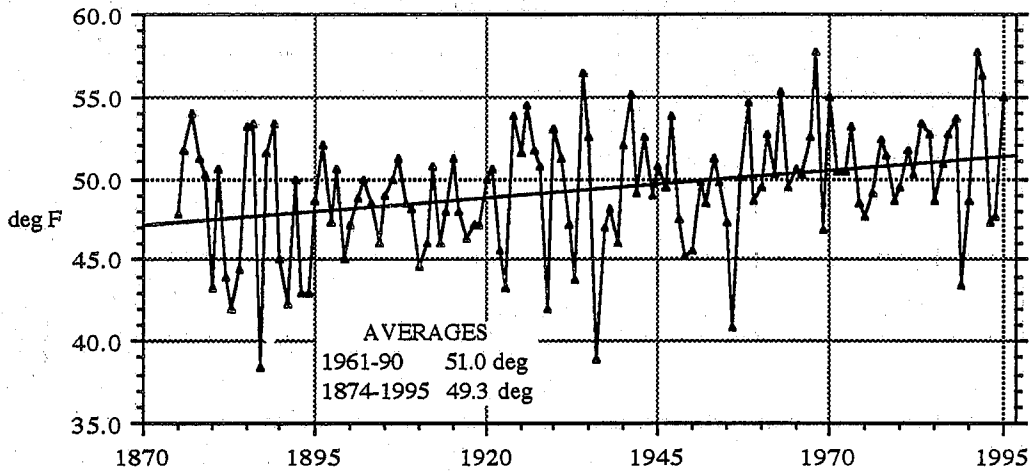
MONTHLY MEAN MAXIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1958	49.9	54.6	54.8	60.5	73.4	73.6	83.5	83.3	74.0	67.2	51.7	49.1	64.6
1959	45.5	48.6	54.9	62.0	65.2	71.5	80.7	77.1	69.3	63.0	50.5	46.0	61.2
1960	39.4	49.5	53.4	60.1	62.4	74.4	82.8	75.5	73.2	64.2	53.4	44.8	61.1
1961	50.2	52.7	54.7	58.6	65.7	77.3	81.2	82.9	71.1	62.6	50.9	46.1	62.8
1962	45.3	50.3	53.5	62.4	61.6	72.7	78.9	76.7	74.8	63.6	53.9	48.5	61.8
1963	41.2	55.3	53.7	55.9	67.4	68.4	72.0	76.5	76.5	63.1	52.7	43.9	60.6
1964	46.7	49.5	52.0	56.0	63.3	68.4	75.9	75.2	70.3	64.5	47.6	42.6	59.3
1965	45.3	50.6	59.6	61.9	64.5	73.9	83.3	80.1	72.9	67.4	55.8	45.4	63.4
1966	45.5	50.3	56.3	61.0	64.6	74.1	77.3	80.4	75.4	63.4	53.5	48.9	62.6
1967	48.9	52.6	51.9	56.2	68.1	77.5	82.6	88.1	80.0	63.9	53.9	45.6	64.1
1968	44.6	57.8	57.0	57.8	65.6	72.7	81.3	75.7	71.4	60.8	53.5	42.2	61.7
1969	36.4	46.9	58.9	59.9	71.5	76.1	78.0	78.4	74.0	62.1	54.2	47.8	62.0
1970	46.1	54.9	57.2	57.4	68.9	77.9	82.5	81.5	72.1	63.7	54.2	45.8	63.5
1971	45.3	50.4	52.0	60.1	67.6	69.8	81.4	83.6	71.7	61.0	51.4	45.3	61.6
1972	44.8	50.5	58.3	57.4	71.4	74.6	83.9	85.0	72.8	64.1	55.0	43.1	63.4
1973	45.0	53.2	55.7	63.4	71.2	74.3	83.5	77.5	75.9	62.7	49.2	49.6	63.4
1974	43.7	48.4	55.3	59.3	64.4	75.6	77.9	80.4	81.9	67.8	54.7	49.6	63.3
1975	46.8	47.7	52.3	56.6	68.4	72.0	80.1	75.3	79.7	60.0	52.0	48.1	61.6
1976	47.9	49.2	53.0	60.1	67.2	70.8	78.5	74.3	74.6	64.8	56.1	45.4	61.8
1977	43.0	52.4	52.9	65.3	62.3	75.4	77.8	84.1	69.7	63.5	49.5	46.9	61.9
1978	44.5	51.4	59.3	58.8	64.5	75.6	80.0	77.8	69.0	66.9	46.9	41.6	61.4
1979	35.4	48.7	60.5	61.8	70.5	76.6	83.4	78.7	77.4	66.7	51.5	49.9	63.4
1980	40.8	49.4	53.5	64.5	66.1	68.5	80.0	77.6	75.1	66.8	54.8	50.2	62.3
1981	51.2	51.8	58.4	61.4	66.2	70.5	78.2	85.5	76.5	62.4	56.4	47.9	63.9
1982	44.1	50.3	57.9	58.6	68.8	76.7	78.0	79.6	73.2	63.8	51.3	47.2	62.5
1983	50.4	53.3	57.7	63.0	70.4	70.9	75.2	78.8	71.9	63.6	53.9	40.2	62.4
1984	48.6	52.7	59.1	57.9	64.8	71.2	80.9	81.1	73.8	59.8	52.5	42.8	62.1
1985	43.2	48.6	54.8	63.3	68.2	75.4	87.5	81.0	70.6	61.6	42.9	39.2	61.4
1986	49.3	50.9	60.5	59.5	67.3	77.4	75.4	86.2	70.7	67.1	53.7	46.4	63.7
1987	45.7	52.7	56.7	64.7	71.1	79.3	77.4	84.1	78.5	71.9	55.6	44.2	65.2
1988	44.4	53.6	56.7	60.6	65.8	73.0	80.9	80.9	76.9	66.8	52.7	47.5	63.3
1989	47.8	43.5	52.6	66.8	67.6	74.9	75.0	75.5	79.7	63.6	55.0	45.9	62.3
1990	49.0	48.7	58.8	64.4	65.6	73.1	83.8	82.1	78.0	62.5	54.4	40.0	63.4
1991	46.6	57.7	54.6	59.5	62.3	68.3	82.4	81.6	81.4	66.8	53.2	47.8	63.5
1992	50.5	56.2	63.7	64.3	76.6	79.5	81.7	82.9	73.5	64.5	52.0	44.0	65.8
1993	42.2	47.3	56.7	59.9	71.3	71.6	72.8	79.6	80.1	67.7	49.2	48.0	62.2
1994	50.1	47.6	60.9	63.7	71.3	73.7	84.6	82.1	79.4	64.4	48.3	47.5	64.5
1995	48.2	54.9	57.5	60.6	71.6	74.1	81.6	78.9	77.6	63.3	57.1	47.4	64.4
<b>Average Monthly Mean Maximum Temperature ALL YEARS (1874-1995)</b>													
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
AVG	44.6	49.3	55.1	61.1	67.1	72.3	78.9	78.6	73.1	63.2	52.7	46.2	61.9
<b>Average Monthly Mean Maximum Temperature 30 YEAR (1961-90)</b>													
AVG	45.4	51.0	56.0	60.6	67.1	74.0	79.9	80.3	74.6	64.0	52.6	45.6	62.6

# MAX TEMP GRAPHS

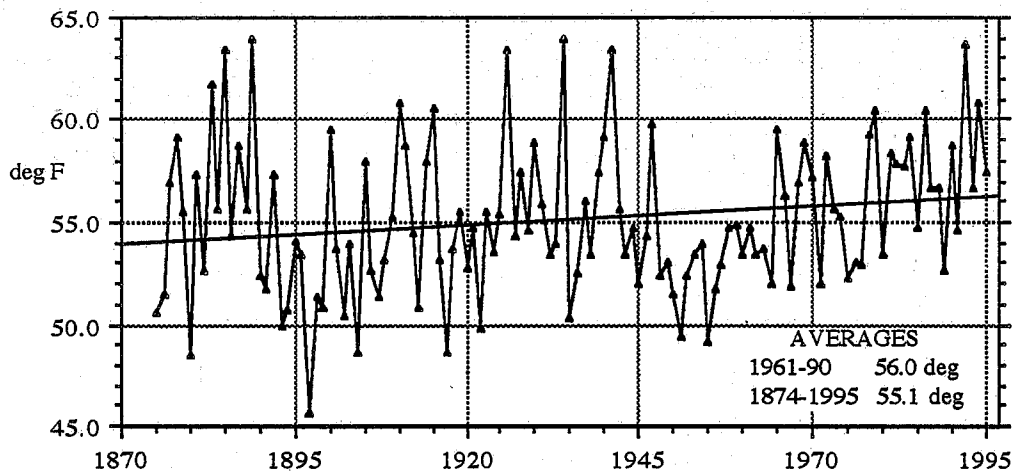
## JANUARY MAXIMUM TEMPERATURE



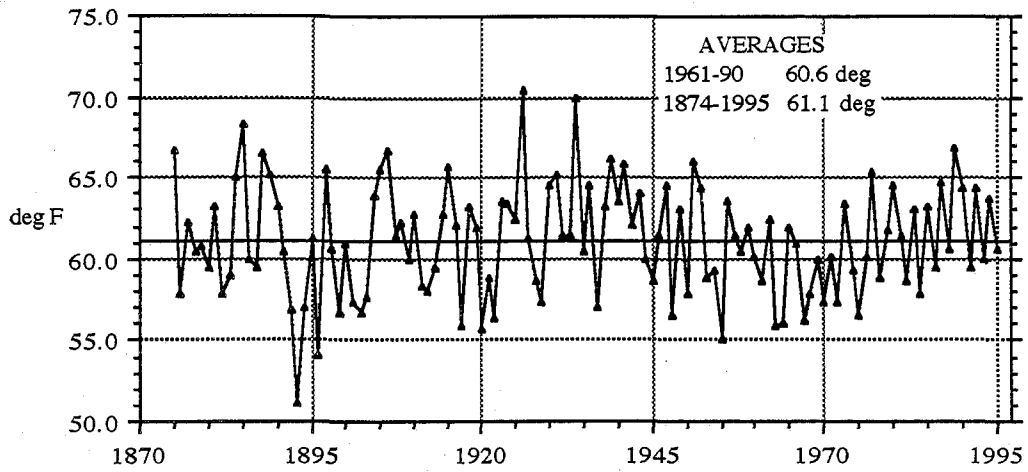
## FEBRUARY MAXIMUM TEMPERATURE



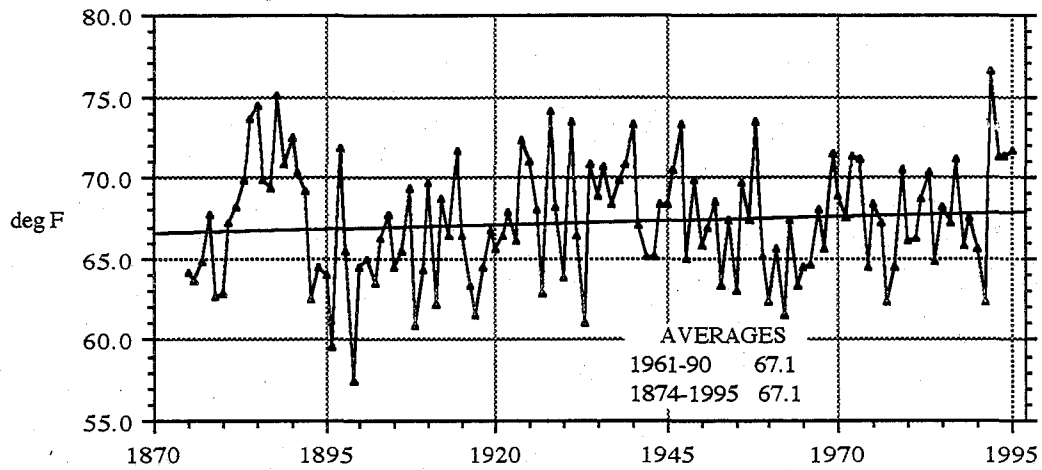
## MARCH MAXIMUM TEMPERATURE



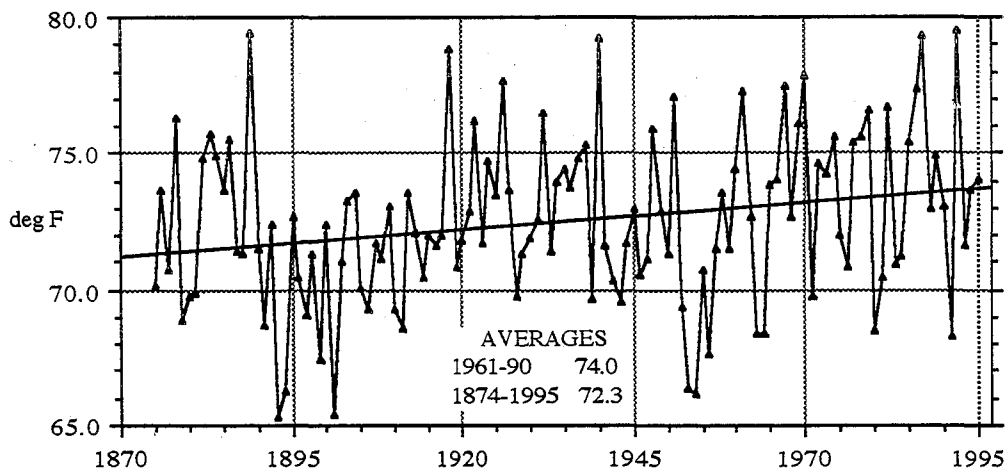
**APRIL MAXIMUM TEMPERATURE**



**MAY MAXIMUM TEMPERATURE**

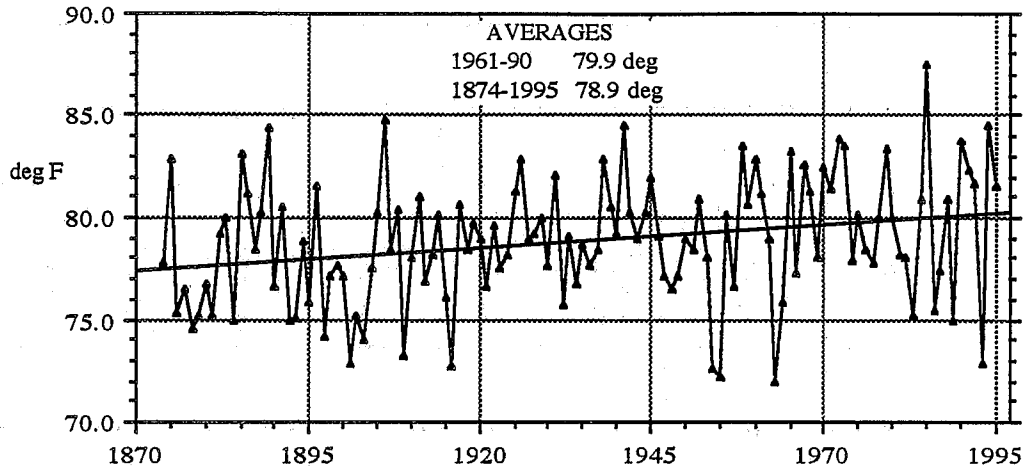


**JUNE MAXIMUM TEMPERATURE**

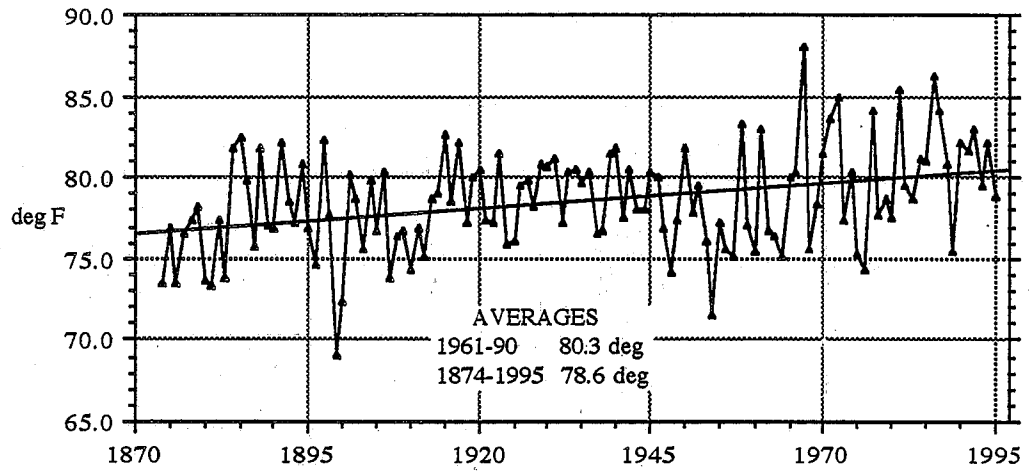


# MAX TEMP GRAPHS

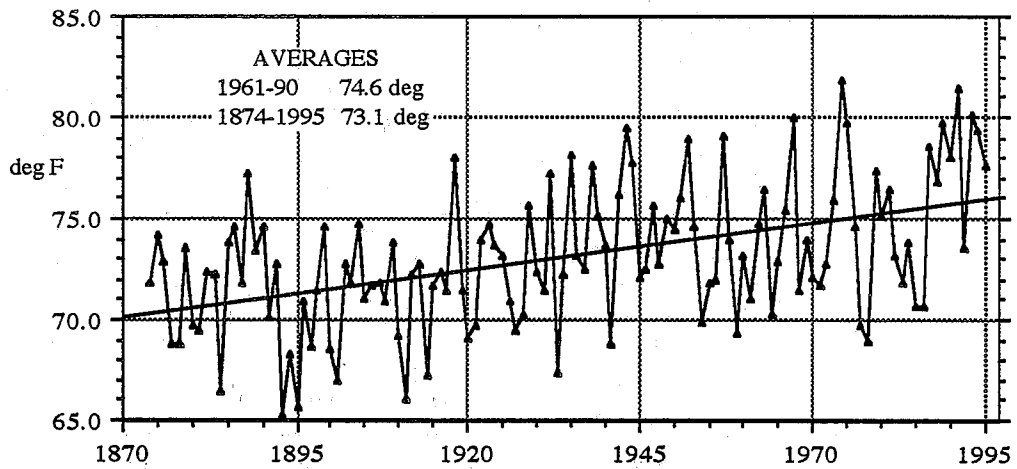
## JULY MAXIMUM TEMPERATURE



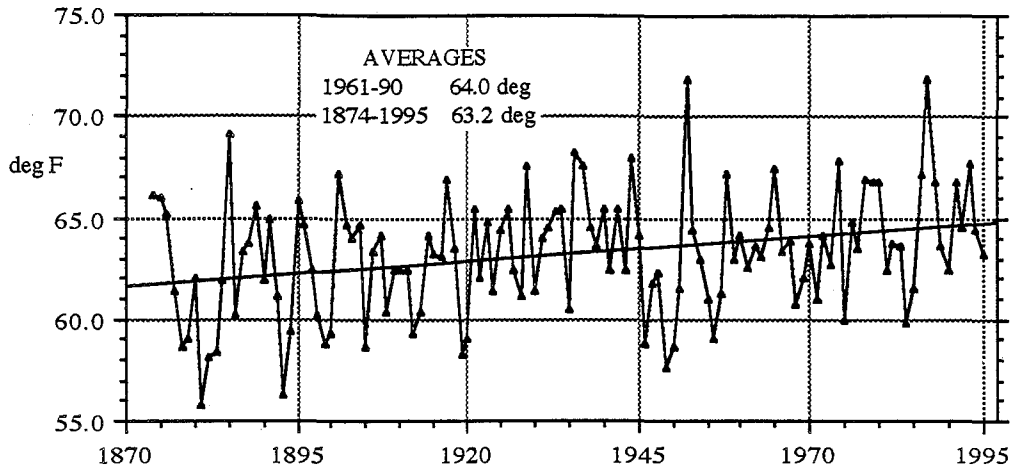
## AUGUST MAXIMUM TEMPERATURE



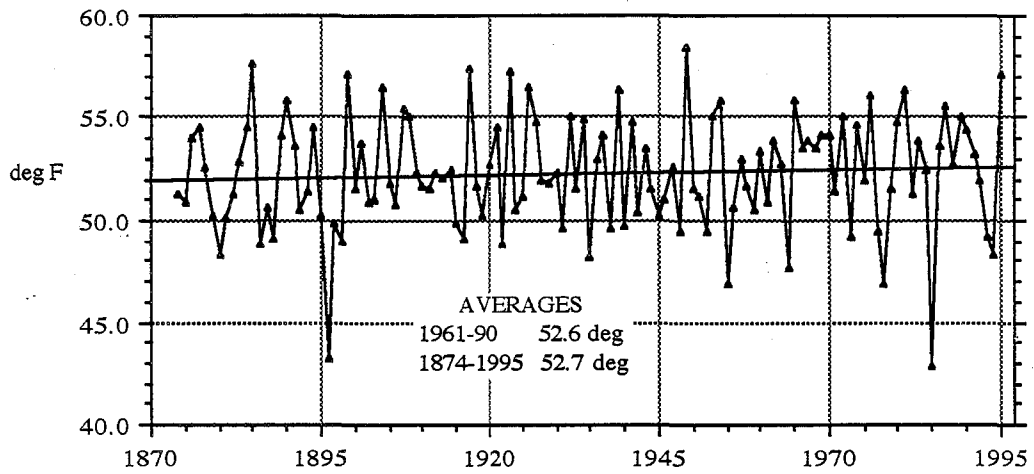
## SEPTEMBER MAXIMUM TEMPERATURE



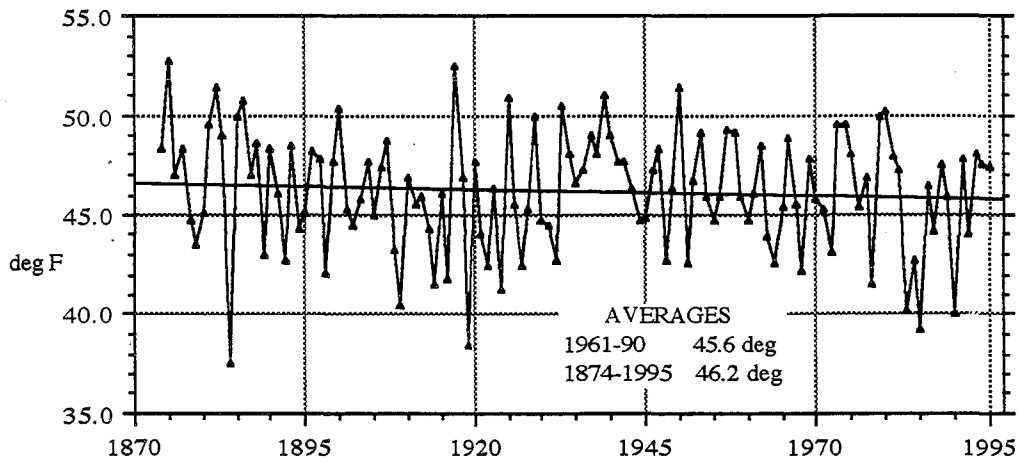
OCTOBER MAXIMUM TEMPERATURE



NOVEMBER MAXIMUM TEMPERATURE



DECEMBER MAXIMUM TEMPERATURE



MONTHLY MIN TEMP

MONTHLY MEAN MINIMUM TEMPERATURES (1871-1995)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
OFFICIAL RECORDS START NOVEMBER 1, 1871													
1871													
1872	Minimum Temperature Data missing from 1871-August 1874												
1873													
1874	---	---	---	---	---	---	---	53.5	49.3	45.5	38.9	38.2	---
1875	24.6	34.4	38.9	43.5	47.4	51.2	58.0	55.2	52.3	50.9	38.9	42.7	45.7
1876	33.2	38.8	38.6	42.3	45.9	54.3	56.2	52.1	53.2	50.5	40.9	33.9	45.0
1877	35.8	38.6	42.5	41.6	45.4	50.1	55.1	55.5	49.9	44.9	41.8	36.4	44.5
1878	35.5	39.0	42.7	41.4	45.4	51.0	53.4	54.3	49.5	43.8	40.7	34.3	44.2
1879	32.2	37.1	41.7	44.2	47.6	51.9	55.3	55.2	53.9	46.0	36.9	34.3	44.7
1880	37.6	33.6	35.0	40.7	44.5	51.2	54.4	54.1	50.2	44.6	36.3	34.4	43.0
1881	34.6	40.4	42.0	47.5	46.4	52.4	54.0	53.3	50.5	44.8	38.4	38.4	45.2
1882	35.2	33.2	36.9	40.8	47.0	54.3	55.2	54.8	50.6	45.7	37.7	41.6	44.4
1883	32.5	25.8	41.1	42.1	48.4	53.2	57.0	54.2	52.6	45.4	42.0	36.8	43.4
1884	33.3	29.4	37.8	45.3	48.7	53.7	55.9	57.7	49.4	45.0	42.0	25.5	43.6
1885	31.6	41.5	42.9	41.5	48.9	50.5	57.3	52.8	51.1	46.0	40.7	37.8	45.2
1886	31.7	39.1	37.5	42.6	48.5	53.5	56.4	55.3	52.2	44.5	34.6	40.2	44.7
1887	36.8	25.7	40.9	42.0	48.2	50.4	54.2	54.9	49.3	45.0	38.5	37.9	43.6
1888	22.0	36.0	36.4	44.1	49.6	54.5	54.8	56.3	54.7	48.9	38.7	38.8	44.5
1889	32.2	35.1	43.7	43.4	49.7	52.5	56.4	52.4	49.3	48.7	41.2	34.1	44.9
1890	26.8	31.9	37.9	41.7	48.8	52.2	54.4	54.9	50.2	43.3	38.6	37.6	43.2
1891	37.5	31.7	36.3	44.1	49.4	51.6	57.0	57.8	51.4	50.1	44.3	37.5	45.7
1892	35.1	36.9	42.4	41.3	48.9	51.9	54.4	55.2	53.1	45.1	40.9	33.9	44.9
1893	28.7	31.4	38.9	40.7	46.3	49.9	53.9	55.2	50.6	42.7	39.9	39.2	43.1
1894	35.8	32.2	37.4	42.0	46.5	51.4	55.7	57.5	51.6	45.5	42.6	34.7	44.4
1895	32.5	37.1	37.7	41.8	47.8	51.7	55.5	53.8	49.1	46.2	37.4	36.6	43.9
1896	37.0	40.3	37.6	39.9	44.9	51.8	58.7	57.9	51.1	47.1	34.0	39.6	45.0
1897	34.1	37.2	35.3	44.4	50.9	53.2	55.1	59.9	51.3	46.1	39.5	38.5	45.5
1898	35.1	40.8	36.3	42.7	47.7	53.7	55.6	58.5	54.1	45.7	38.8	32.9	45.2
1899	36.1	33.7	36.8	40.8	44.7	50.2	56.1	53.9	53.6	44.8	47.9	38.5	44.8
1900	38.8	36.6	44.2	43.6	49.2	54.5	56.1	53.9	51.4	45.1	40.2	39.4	46.1
1901	34.3	37.2	39.4	40.3	48.4	50.7	52.9	56.7	49.6	51.1	43.0	36.9	45.0
1902	33.2	39.4	39.5	41.4	49.0	51.7	55.1	54.8	51.2	48.4	41.3	36.2	45.1
1903	38.6	33.7	37.6	42.0	47.5	55.1	54.4	56.4	51.0	47.2	41.2	36.3	45.1
1904	38.2	36.4	38.2	45.7	47.5	52.2	56.6	55.1	52.5	48.3	46.2	38.9	46.3
1905	35.9	36.4	43.5	45.3	48.1	52.6	56.8	55.5	53.1	44.0	37.0	36.3	45.4
1906	38.5	39.9	38.2	44.7	48.3	50.8	59.8	56.0	51.8	47.9	41.6	38.8	46.4
1907	29.1	39.2	38.5	42.9	49.0	53.6	57.3	55.2	53.6	50.4	42.0	39.2	45.8
1908	37.1	37.1	39.4	43.3	44.8	51.3	59.0	55.5	49.2	45.4	42.5	34.8	45.0
1909	27.6	38.4	40.0	42.1	45.4	52.3	54.6	53.2	52.7	46.8	42.1	30.8	43.8
1910	32.8	34.1	43.6	44.7	50.4	51.3	56.1	53.5	50.9	49.6	47.8	38.9	45.6
1911	34.2	34.5	39.5	39.2	46.4	50.6	57.9	57.1	50.9	46.0	40.5	37.2	44.5
1912	36.6	39.8	38.2	41.8	49.5	53.6	57.8	56.4	52.2	44.0	41.8	37.0	45.7
1913	33.5	33.3	38.3	42.7	48.7	53.7	57.5	58.5	51.9	46.0	42.9	37.1	45.3

MONTHLY MIN TEMP

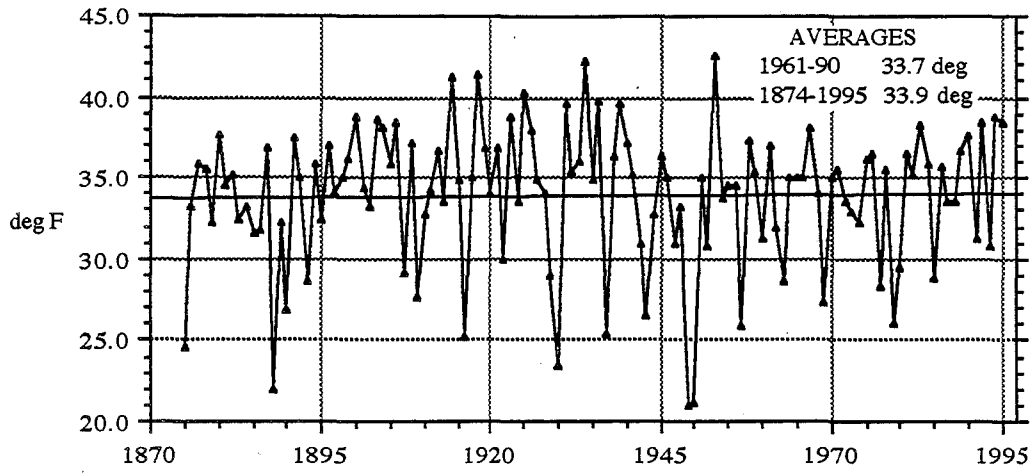
MONTHLY MEAN MINIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1914	41.2	38.8	44.2	44.8	50.6	52.4	57.1	57.0	51.4	50.6	41.6	32.1	46.8
1915	34.8	39.5	44.5	45.6	48.9	53.3	58.3	59.8	53.0	48.2	40.9	38.0	47.1
1916	25.2	36.5	40.7	44.0	46.2	52.3	55.6	57.5	52.6	43.4	38.3	34.4	43.9
1917	35.0	36.6	36.5	42.8	47.5	51.6	57.4	58.5	54.7	47.7	43.9	44.3	46.4
1918	41.4	36.1	39.6	42.3	46.6	55.4	57.1	57.4	56.9	49.3	41.6	37.7	46.8
1919	36.9	38.0	40.8	44.8	47.7	50.4	56.1	57.0	53.6	43.5	39.7	28.6	44.8
1920	34.1	34.4	38.9	40.7	44.5	52.4	57.1	58.0	53.3	47.2	40.9	40.5	45.2
1921	36.8	39.9	41.2	42.6	47.7	56.0	54.8	56.6	51.3	48.6	43.0	34.2	46.1
1922	29.9	34.3	36.8	41.0	48.2	54.8	56.9	57.3	53.8	48.8	38.3	33.6	44.5
1923	38.8	31.6	38.9	45.0	49.1	53.3	58.1	59.6	54.3	49.4	43.5	36.7	46.5
1924	33.5	42.2	38.1	42.7	50.1	53.9	55.8	57.1	53.1	47.8	40.7	31.8	45.6
1925	40.3	41.1	39.5	45.8	51.4	53.3	58.4	55.8	54.5	47.1	40.9	40.6	47.4
1926	38.0	42.9	43.6	50.0	50.3	56.2	58.2	58.7	52.3	50.2	44.6	36.3	48.4
1927	34.9	39.4	39.5	42.6	47.8	55.0	58.2	58.4	54.3	47.4	44.8	33.2	46.3
1928	34.0	37.7	44.1	44.1	50.7	54.7	58.8	56.7	52.8	48.2	41.2	35.0	46.5
1929	29.0	29.4	40.8	40.9	48.8	53.6	56.6	57.3	54.0	49.4	37.7	40.7	44.8
1930	23.5	39.5	41.7	47.1	46.3	52.5	55.7	59.0	55.0	46.0	39.8	36.2	45.2
1931	39.6	38.8	41.8	45.9	51.9	54.6	58.1	57.3	54.0	47.6	38.3	35.9	47.0
1932	35.3	35.8	42.4	44.9	48.7	55.2	55.8	58.8	53.9	49.8	43.5	33.5	46.5
1933	36.0	32.6	40.1	41.8	46.8	53.2	56.9	58.8	51.8	49.0	41.4	42.8	45.9
1934	42.3	42.5	46.4	49.5	52.1	54.1	57.1	58.5	53.2	49.2	45.7	40.1	49.2
1935	34.9	40.0	37.8	42.9	46.8	54.4	56.9	57.1	56.3	46.1	36.5	37.7	45.6
1936	39.8	28.9	38.1	46.6	51.7	56.5	57.8	58.6	53.7	49.1	38.1	40.2	46.6
1937	25.4	36.5	43.3	43.0	48.5	56.1	58.4	57.0	55.2	51.0	45.2	39.0	46.6
1938	36.3	38.6	40.5	45.4	49.0	54.5	59.2	55.8	57.4	49.9	40.1	39.2	47.6
1939	39.6	35.6	41.3	45.8	50.4	52.9	58.3	58.4	55.7	49.5	43.5	41.7	47.7
1940	37.2	42.4	44.5	47.1	51.9	55.8	58.7	59.0	57.5	51.8	38.8	39.0	48.6
1941	35.2	37.1	40.6	43.1	48.1	54.8	58.3	58.0	52.0	46.8	41.3	38.1	45.1
1942	30.9	36.3	37.1	43.5	47.8	51.6	58.6	57.6	50.3	45.8	39.4	38.3	44.8
1943	26.5	34.3	37.4	44.5	46.0	51.0	55.5	55.7	52.0	47.2	38.7	33.6	43.5
1944	32.8	35.4	36.0	41.8	46.6	51.6	55.6	55.6	52.5	49.1	38.9	33.9	44.2
1945	36.3	38.0	38.4	42.1	49.2	50.6	56.0	55.4	49.5	44.2	39.9	34.7	44.5
1946	35.1	36.0	38.7	41.4	48.8	51.8	56.1	55.5	51.5	42.4	35.3	36.5	44.1
1947	30.9	36.6	39.7	43.2	48.3	52.8	56.4	54.8	51.7	48.9	41.4	37.5	45.3
1948	33.3	34.0	37.1	41.3	47.1	57.1	56.9	57.4	53.2	44.8	37.9	33.3	44.4
1949	21.0	33.0	38.3	41.8	48.5	50.5	54.6	55.5	51.3	39.5	41.3	36.5	42.7
1950	21.2	32.1	38.6	39.2	43.2	52.2	54.7	55.7	53.8	46.1	41.2	41.4	43.3
1951	35.0	36.0	34.5	40.9	46.5	51.9	55.7	53.4	50.2	45.7	40.2	32.4	43.5
1952	30.8	35.0	38.3	40.4	46.5	51.1	55.0	56.1	50.6	45.5	31.8	36.4	43.1
1953	42.6	36.3	38.2	40.9	45.5	50.8	54.4	55.0	50.3	44.2	42.2	38.3	44.9
1954	33.8	35.3	33.6	39.8	46.0	49.7	53.5	55.0	50.4	43.1	43.5	35.7	43.3
1955	34.6	33.5	33.8	37.9	42.8	50.7	54.7	53.7	48.9	46.2	35.9	33.7	42.2
1956	34.6	30.8	36.5	41.7	48.4	50.4	55.9	55.1	49.6	44.4	34.6	35.3	43.1
1957	25.9	33.2	39.4	42.2	50.2	52.6	54.5	53.8	51.4	44.3	34.9	38.5	43.4

MONTHLY MIN TEMP

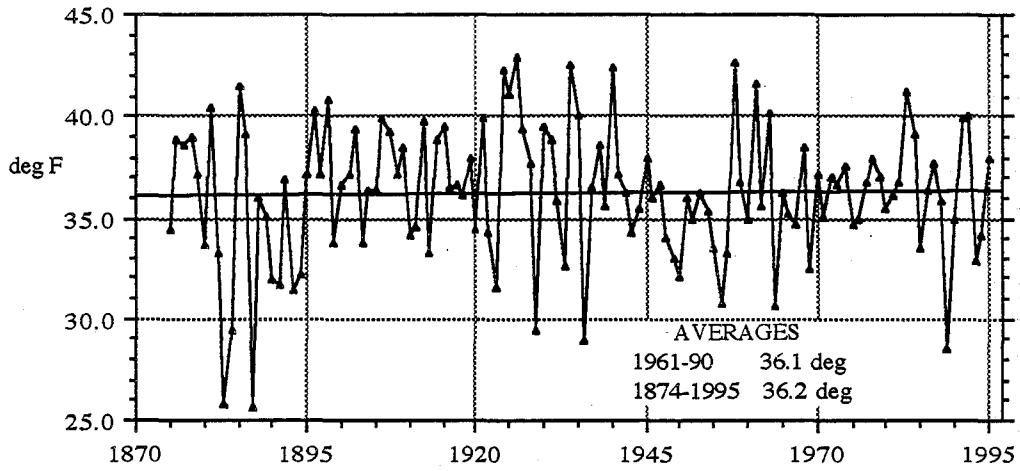
MONTHLY MEAN MINIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1958	37.3	42.6	36.1	41.2	50.2	56.8	57.6	57.3	50.6	43.1	39.2	38.0	45.8
1959	35.3	36.8	38.6	42.5	46.2	54.0	56.6	53.8	51.3	45.4	35.0	33.2	44.1
1960	31.3	35.0	36.5	41.1	45.5	51.6	55.3	55.3	49.8	44.8	39.5	32.5	43.2
1961	37.0	41.6	40.6	41.5	47.4	53.3	57.5	57.7	47.9	44.0	34.9	35.7	44.9
1962	31.9	35.6	37.0	42.7	46.6	50.5	53.8	55.2	51.8	46.6	41.2	36.6	44.1
1963	28.7	40.2	36.7	41.2	45.7	51.5	54.1	55.7	53.7	45.3	39.3	32.0	43.7
1964	35.1	30.6	35.6	37.4	41.9	49.0	53.1	52.2	46.5	41.9	34.4	31.4	40.8
1965	35.1	36.2	35.5	41.6	44.0	49.7	56.0	57.0	47.9	47.5	43.5	33.5	44.0
1966	35.0	35.2	38.1	40.2	44.3	50.6	55.5	54.6	53.4	43.9	40.7	39.5	44.3
1967	38.2	34.7	36.0	37.6	46.0	54.3	55.9	57.7	52.8	45.7	38.4	35.1	44.4
1968	34.0	38.5	39.3	38.2	47.0	51.7	55.9	55.8	51.6	43.3	39.5	32.4	43.9
1969	27.4	32.4	34.1	40.2	47.4	56.9	55.2	53.7	52.8	44.4	40.2	37.9	43.6
1970	35.0	37.1	36.6	39.3	45.1	53.9	55.8	54.9	49.3	42.3	40.0	34.1	43.6
1971	35.5	35.1	35.4	39.1	45.9	50.6	56.9	59.6	49.9	43.7	39.5	35.4	43.9
1972	33.5	37.0	41.2	38.6	48.9	53.3	57.8	58.4	49.5	41.9	41.4	31.7	44.4
1973	32.9	36.6	40.0	41.1	47.6	53.5	57.0	54.3	52.9	45.8	39.1	39.7	45.0
1974	32.2	37.6	39.1	43.3	47.0	53.1	56.2	57.4	52.7	42.5	41.5	38.6	45.1
1975	36.1	34.7	37.6	38.0	46.5	51.7	57.9	55.3	51.6	47.0	39.9	37.2	44.5
1976	36.5	35.0	35.7	40.4	45.9	49.9	55.8	56.7	53.8	44.5	37.8	33.5	43.8
1977	28.3	36.8	38.1	40.4	45.3	52.4	54.8	59.3	51.8	44.0	37.0	37.1	43.8
1978	35.6	38.0	38.9	42.1	44.8	54.6	56.7	57.3	52.8	42.5	31.2	28.9	43.6
1979	26.0	37.0	41.0	44.3	49.6	53.5	57.6	58.5	55.2	49.5	38.5	38.9	45.8
1980	29.4	35.5	39.0	43.1	48.5	52.8	57.7	55.1	52.4	45.2	42.2	37.8	44.9
1981	36.5	36.1	39.2	43.5	48.8	53.0	56.7	58.8	53.2	44.2	41.2	37.4	45.7
1982	35.2	36.8	39.0	39.3	46.3	55.2	56.9	57.5	53.1	45.9	37.4	36.2	44.9
1983	38.3	41.2	43.7	42.4	50.4	54.6	57.8	59.4	51.1	44.8	44.7	32.5	46.7
1984	35.8	39.1	43.1	42.8	48.0	53.1	57.2	57.7	53.6	45.9	40.9	33.8	45.9
1985	28.9	33.5	36.7	44.4	48.3	53.3	60.7	57.5	51.0	43.8	31.6	26.8	43.0
1986	35.7	36.4	42.0	40.9	47.9	55.2	55.1	58.4	52.3	46.8	41.6	34.7	45.6
1987	33.5	37.7	40.7	43.6	49.6	53.6	56.9	56.9	52.4	44.5	41.9	33.9	45.4
1988	33.6	35.8	37.7	43.7	46.9	51.8	55.9	55.0	51.0	49.8	42.2	36.4	45.0
1989	36.6	28.5	38.5	45.2	48.3	53.6	55.9	56.6	50.8	46.1	42.1	34.6	44.7
1990	37.7	35.0	39.9	44.6	47.8	54.0	58.5	59.6	56.0	45.2	42.3	29.4	45.8
1991	31.2	39.9	37.8	42.0	47.1	51.4	57.3	58.5	53.3	43.9	41.8	37.6	45.2
1992	38.5	40.0	40.8	46.5	49.6	55.2	58.7	56.6	51.0	47.2	40.5	34.6	46.6
1993	30.8	32.8	39.1	45.2	50.9	53.4	55.8	57.3	51.2	47.0	33.8	34.7	44.3
1994	38.8	34.1	39.5	44.7	50.0	52.1	57.5	58.2	55.8	43.8	37.0	37.0	45.7
1995	38.5	38.0	39.0	41.9	49.8	53.4	59.5	55.6	56.6	45.7	46.2	37.5	46.8
<b>Average Monthly Mean Minimum Temperature ALL YEARS (1874-1995)</b>													
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
AVG	33.9	36.2	39.2	42.6	47.7	52.8	56.4	56.4	52.1	46.2	40.1	36.2	45.0
<b>Average Monthly Mean Minimum Temperature 30 YEAR (1961-90)</b>													
AVG	33.7	36.1	38.6	41.3	47.0	52.9	56.5	56.9	52.0	44.9	39.5	34.8	44.5



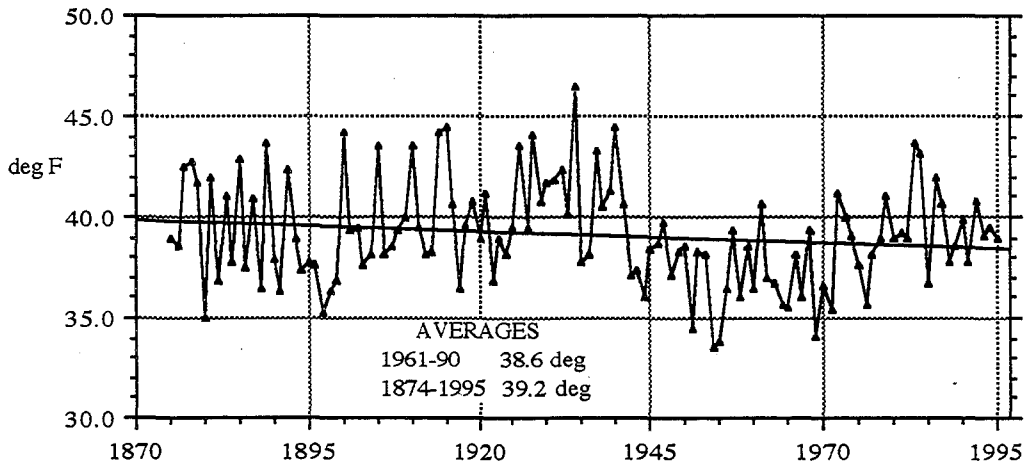
**JANUARY MINIMUM TEMPERATURE**



**FEBRUARY MINIMUM TEMPERATURE**

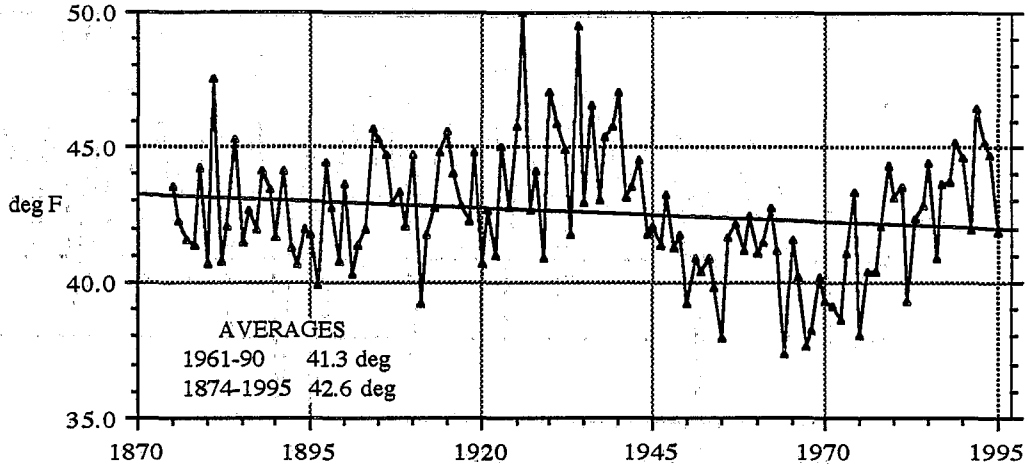


**MARCH MINIMUM TEMPERATURE**

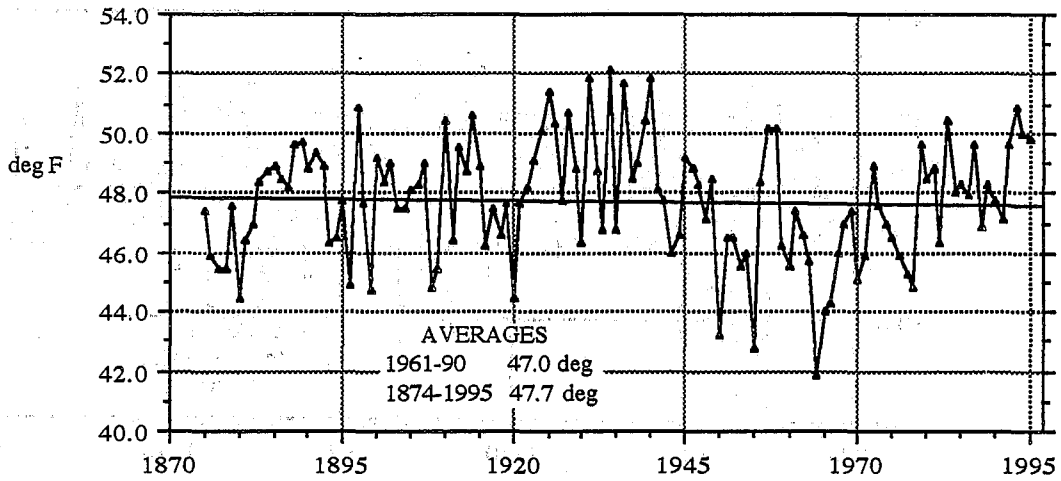


MIN TEMP GRAPHS

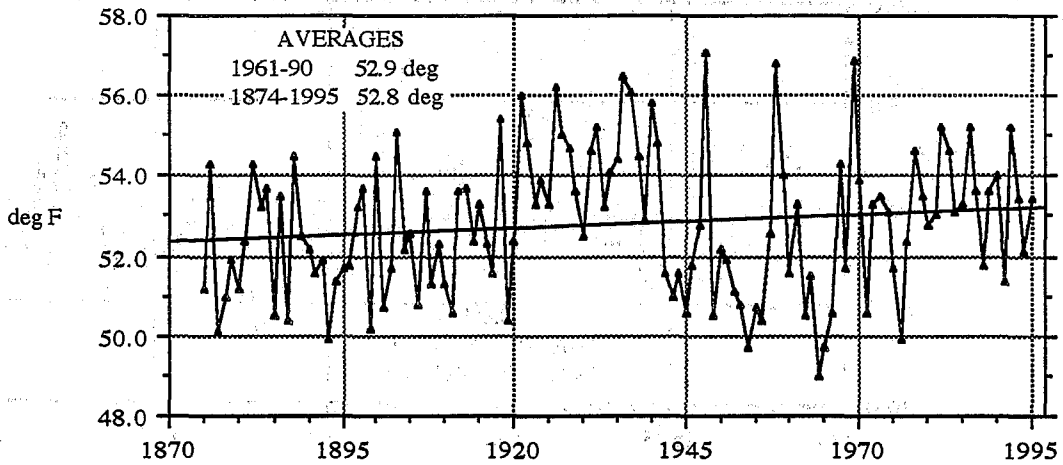
APRIL MINIMUM TEMPERATURE



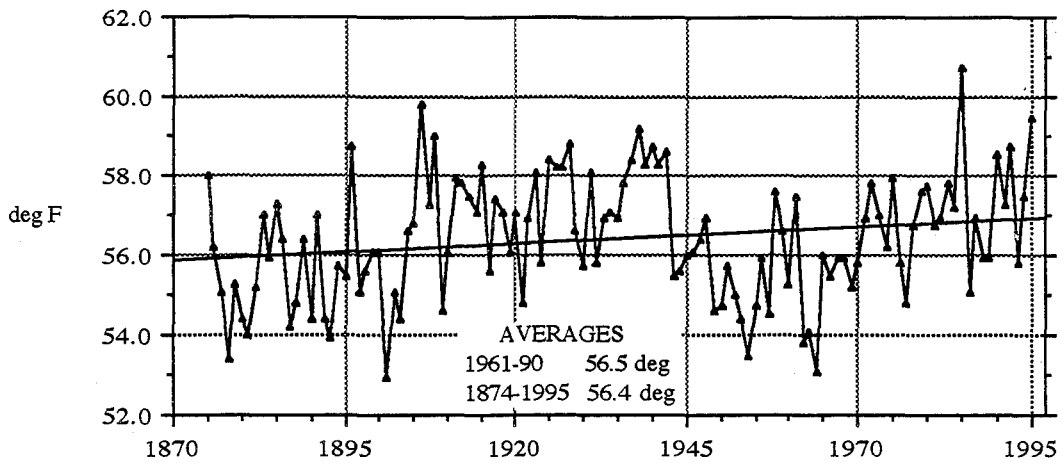
MAY MINIMUM TEMPERATURE



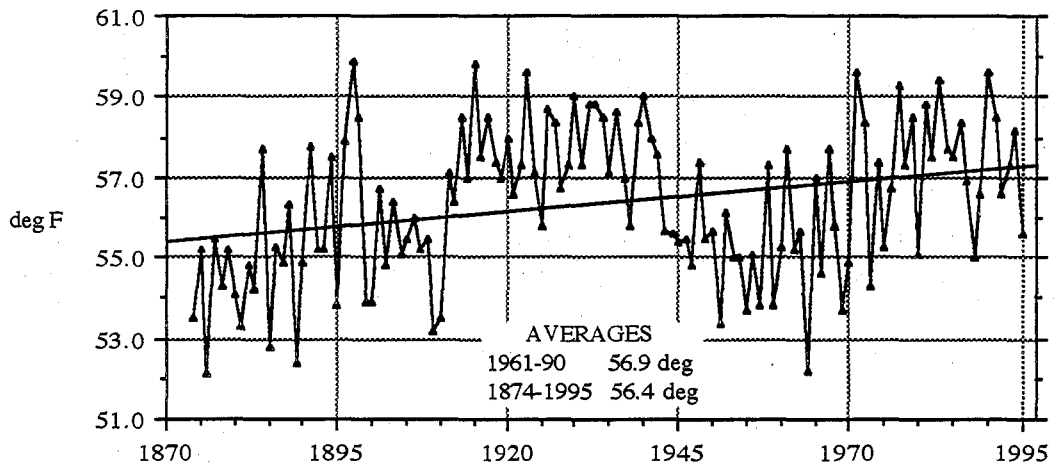
JUNE MINIMUM TEMPERATURE



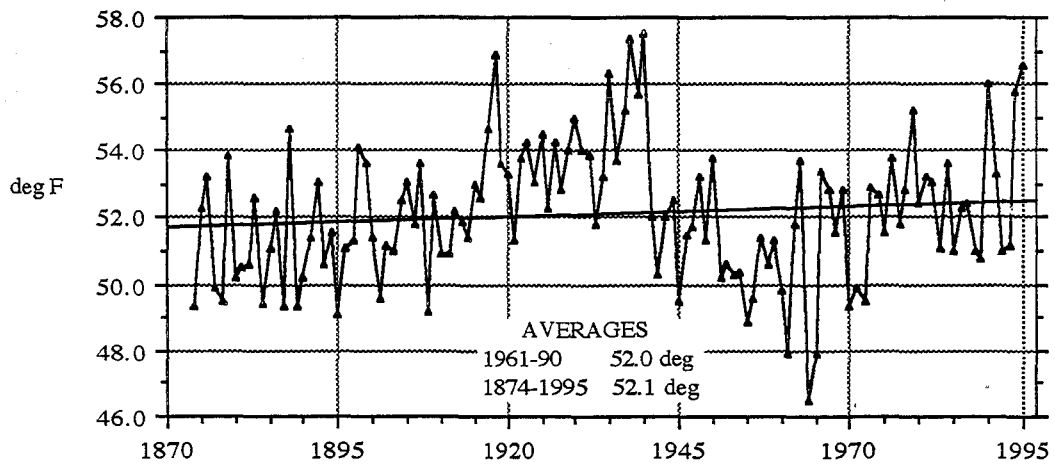
### JULY MINIMUM TEMPERATURE



### AUGUST MINIMUM TEMPERATURE

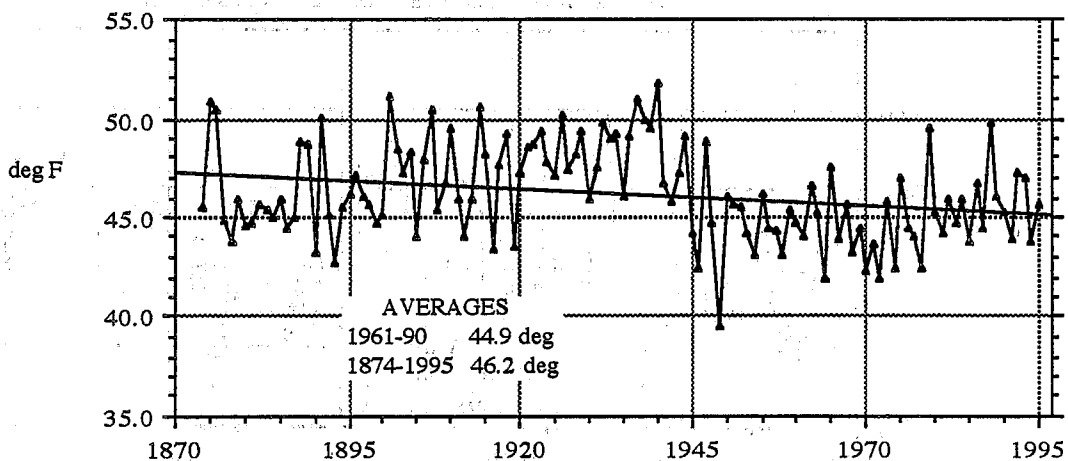


### SEPTEMBER MINIMUM TEMPERATURE

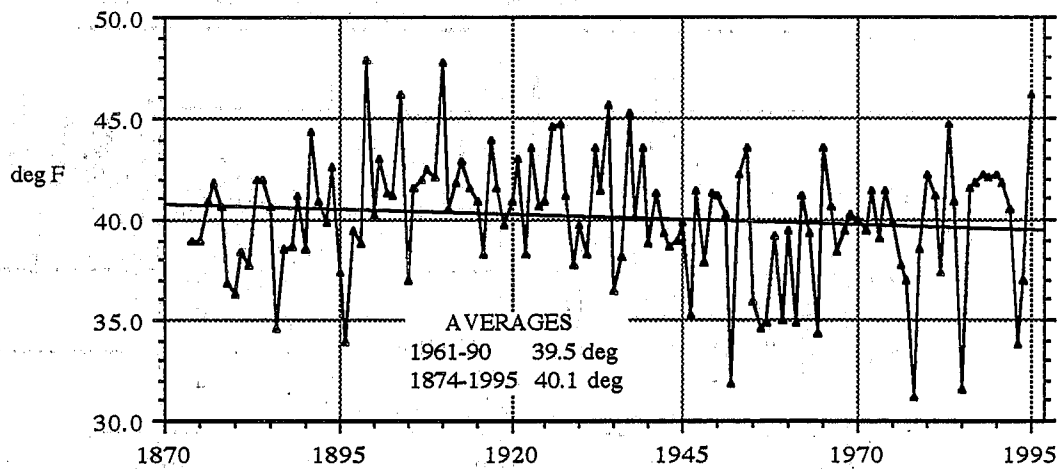


MIN TEMP GRAPHS

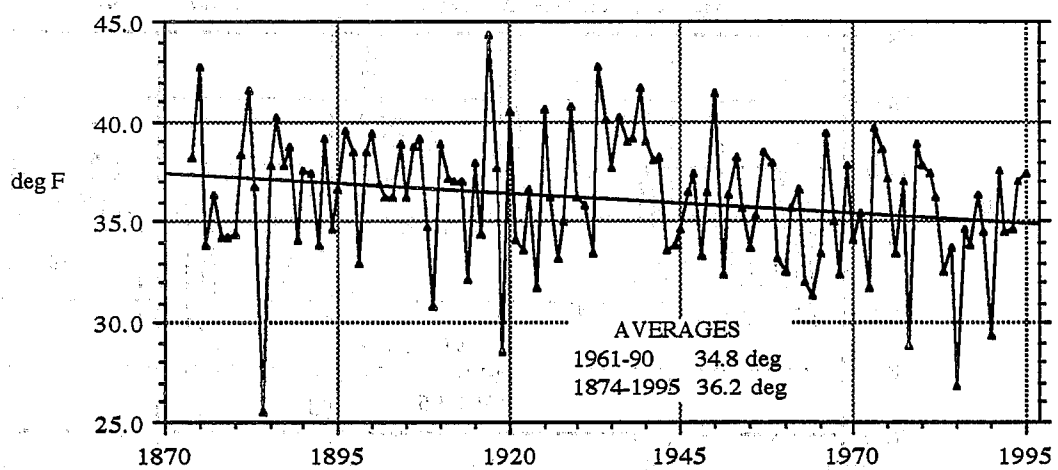
OCTOBER MINIMUM TEMPERATURE



NOVEMBER MINIMUM TEMPERATURE



DECEMBER MINIMUM TEMPERATURE



## MONTHLY MEAN TEMPERATURES (1871-1995)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
OFFICIAL RECORDS START NOVEMBER 1, 1871													
1871	---	---	---	---	---	---	---	---	---	---	45.3	38.1	---
1872	38.0	42.3	49.3	45.6	56.4	62.7	66.1	64.2	59.5	52.5	41.7	41.9	51.7
1873	44.4	40.6	48.1	51.3	55.9	61.5	68.0	67.7	61.9	49.9	47.4	37.0	52.8
1874	42.9	42.7	45.1	53.9	59.7	60.2	68.3	63.5	60.6	55.8	45.1	43.2	53.4
1875	30.2	41.2	44.8	55.0	55.8	60.7	70.4	66.1	63.2	58.4	44.9	47.7	53.2
1876	39.6	45.3	45.0	50.1	54.8	64.0	65.8	62.8	63.0	57.8	47.4	40.4	53.0
1877	42.0	46.3	49.8	50.2	55.1	60.4	65.8	66.0	59.4	53.2	48.2	42.4	53.2
1878	41.2	45.2	51.0	51.0	56.6	63.6	64.0	65.9	59.2	51.2	46.6	39.5	53.0
1879	37.8	43.6	48.6	52.5	55.2	60.4	65.2	66.8	63.7	52.5	43.6	38.9	52.4
1880	41.6	38.4	41.8	50.1	53.6	60.5	65.6	63.8	60.0	53.4	42.3	39.8	50.9
1881	39.4	45.5	49.6	55.4	56.8	61.2	64.6	63.3	60.0	50.3	44.2	44.0	52.9
1882	40.3	38.6	44.8	49.3	57.6	64.6	67.2	66.1	61.5	51.9	44.5	46.5	52.7
1883	38.4	33.9	51.4	50.6	59.1	64.4	68.5	64.0	62.4	51.9	47.4	42.9	52.9
1884	39.8	36.9	46.7	55.2	61.2	64.3	65.4	69.8	58.0	53.4	48.3	31.5	52.6
1885	36.6	47.4	53.2	54.9	61.7	62.1	70.2	67.6	62.4	57.6	49.2	43.9	55.6
1886	37.5	43.8	45.9	51.2	59.2	64.5	68.8	67.6	63.4	52.4	41.7	45.5	53.6
1887	42.2	32.0	49.8	50.8	58.8	60.9	66.4	65.4	60.6	54.2	44.6	42.4	52.3
1888	29.2	43.8	46.0	55.3	62.4	62.9	67.6	69.0	66.0	56.3	43.9	43.7	53.8
1889	38.4	44.2	53.8	54.3	60.3	66.0	70.4	64.8	61.4	57.2	47.6	38.6	54.8
1890	31.8	38.5	45.2	52.4	60.6	61.8	65.5	65.9	62.4	52.6	47.2	43.0	52.2
1891	43.2	37.0	44.0	52.3	59.9	60.2	68.8	70.0	60.8	57.6	49.0	41.8	53.7
1892	39.9	43.4	49.9	49.0	59.0	62.2	64.7	66.8	62.9	53.2	45.7	38.3	52.9
1893	34.1	37.2	44.4	45.9	54.4	57.6	64.5	66.2	57.9	49.5	45.6	43.8	50.1
1894	40.4	37.6	44.0	49.6	55.5	58.8	67.2	69.2	60.0	52.5	48.6	39.5	51.9
1895	37.3	42.8	45.9	51.5	55.9	62.2	65.6	65.4	57.4	56.0	43.8	40.8	52.0
1896	42.8	46.2	45.5	47.0	52.0	61.2	70.1	66.3	61.0	55.9	38.6	43.9	52.6
1897	38.8	42.3	40.5	55.0	61.4	61.2	64.6	71.1	60.0	54.2	44.7	43.2	53.1
1898	39.0	45.7	43.8	51.6	56.6	62.5	66.4	68.2	62.8	53.0	43.9	37.5	52.6
1899	40.6	39.3	43.8	48.8	51.1	58.8	66.8	61.5	64.1	51.8	52.5	43.1	51.9
1900	44.0	41.8	51.8	52.2	56.8	63.5	66.6	63.1	60.0	52.2	45.8	44.8	53.5
1901	39.5	43.0	46.6	48.8	56.7	58.0	62.8	68.4	58.3	59.1	48.4	41.1	52.6
1902	38.4	44.6	45.0	49.0	56.2	61.4	65.2	66.8	62.0	56.6	46.1	40.4	52.6
1903	42.8	41.0	45.8	49.8	56.9	64.2	64.2	66.0	61.4	55.6	46.2	41.0	52.9
1904	42.1	41.2	43.4	54.8	57.6	62.9	67.0	67.4	63.6	56.5	51.4	43.3	54.3
1905	40.4	42.6	50.8	55.4	56.2	61.4	68.5	66.2	62.0	51.3	44.4	40.6	53.3
1906	43.0	45.0	45.4	55.6	56.9	60.0	72.3	68.2	61.8	55.6	46.2	43.1	54.4
1907	34.0	45.2	44.9	52.2	59.2	62.6	67.9	64.6	62.8	57.3	48.8	44.0	53.6
1908	42.2	42.8	46.3	52.8	52.8	61.2	69.7	66.0	60.0	52.9	48.8	39.0	52.9
1909	32.8	43.3	47.6	51.0	54.8	62.7	63.9	65.0	63.2	54.6	47.2	35.6	51.8
1910	37.6	39.3	52.2	53.8	60.0	60.3	67.1	63.9	60.0	56.0	46.8	42.9	53.3
1911	38.4	40.2	49.2	48.8	54.3	59.6	69.5	67.0	58.4	54.2	46.0	41.4	52.2
1912	41.4	45.3	46.4	49.9	59.2	63.6	67.4	65.8	62.2	51.6	47.1	41.4	53.4
1913	38.2	39.7	44.6	51.0	57.6	62.9	67.8	68.6	62.3	53.2	47.5	40.7	52.8

MONTHLY MEAN TEMP

MONTHLY MEAN TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1914	45.8	43.4	51.2	53.7	61.1	61.4	68.6	68.0	59.4	57.4	47.0	36.8	54.5
1915	39.2	45.4	52.6	55.6	57.7	62.6	67.2	71.2	62.4	55.8	45.4	42.0	54.8
1916	29.6	42.2	47.0	53.0	54.8	62.0	64.2	68.0	62.5	53.2	43.7	38.1	51.5
1917	39.6	41.5	42.6	49.4	54.6	61.8	69.0	70.3	63.1	57.3	50.6	48.4	54.0
1918	45.4	41.6	46.7	52.8	55.6	67.1	67.8	67.4	67.4	56.4	46.6	42.3	54.8
1919	42.2	42.6	48.2	53.4	57.2	60.6	68.0	68.6	62.5	50.9	45.0	33.6	52.7
1920	39.4	42.2	45.8	48.2	55.1	62.1	68.0	69.3	61.2	53.1	46.8	44.1	52.9
1921	41.6	45.2	48.0	50.8	57.1	64.4	65.7	67.0	60.5	57.0	48.8	39.1	53.8
1922	35.2	39.9	43.3	48.7	58.0	65.5	68.2	67.2	63.8	55.4	43.6	38.0	52.2
1923	42.8	37.4	47.2	54.2	57.6	62.5	67.8	70.6	64.5	57.1	50.4	41.5	54.5
1924	38.5	48.0	45.8	53.0	61.2	64.3	67.0	66.5	63.4	54.6	45.6	36.6	53.7
1925	44.8	46.4	47.4	54.2	61.2	63.4	69.8	66.0	62.9	55.8	46.0	45.8	55.3
1926	42.8	48.7	53.5	60.2	59.2	67.0	70.5	69.2	61.6	57.8	50.6	41.0	56.8
1927	39.0	45.6	46.9	52.0	55.4	64.4	68.6	69.2	61.9	54.9	49.8	37.8	53.8
1928	38.6	44.2	50.8	51.4	62.4	62.2	69.0	67.5	61.5	54.7	46.6	40.1	54.1
1929	34.2	35.6	47.7	49.2	58.6	62.4	68.4	69.1	64.8	58.5	44.8	45.3	53.2
1930	28.0	46.3	50.3	55.8	55.0	62.2	66.6	69.8	63.7	53.7	46.0	40.4	53.2
1931	44.7	45.0	48.8	55.6	62.7	63.6	70.1	69.2	62.8	55.8	44.0	40.2	55.2
1932	39.8	41.4	48.0	53.2	57.6	65.8	65.8	68.0	65.6	57.2	49.3	38.1	54.2
1933	39.8	38.2	47.0	51.6	53.9	62.3	68.0	69.6	59.6	57.2	46.5	46.6	53.4
1934	46.9	49.4	55.2	59.8	61.4	64.0	67.0	69.5	62.8	57.4	50.3	44.1	57.3
1935	40.4	46.2	44.0	51.7	57.8	64.4	67.8	68.4	67.2	53.3	42.4	42.2	53.8
1936	44.2	33.9	45.3	55.6	61.2	65.2	67.8	69.5	63.4	58.6	45.6	43.8	54.5
1937	29.9	41.8	49.7	50.0	58.4	65.4	68.4	66.8	63.8	59.2	49.6	44.0	53.9
1938	41.4	43.4	47.0	54.4	59.4	64.9	71.0	66.2	67.5	57.2	44.8	43.6	55.1
1939	43.8	40.8	49.4	56.0	60.6	61.3	69.4	70.0	65.4	56.6	50.0	46.4	55.8
1940	42.2	47.2	51.8	55.3	62.6	67.5	69.0	70.4	65.6	58.6	44.2	44.0	56.5
1941	41.3	46.1	52.0	54.4	57.6	62.1	71.4	67.8	60.4	54.6	48.0	42.9	54.9
1942	35.4	42.8	46.4	52.8	56.4	61.0	69.4	69.0	63.2	55.6	44.9	43.0	53.3
1943	33.2	43.4	45.5	54.3	55.6	60.3	67.2	66.8	65.8	54.8	46.1	40.0	52.8
1944	39.2	42.2	45.4	50.8	57.5	61.6	67.9	66.8	65.2	58.5	45.2	39.4	53.3
1945	42.4	44.4	45.2	50.4	58.8	61.8	69.0	67.9	60.8	54.2	45.1	39.8	53.3
1946	40.9	42.7	46.6	51.4	59.7	61.2	67.6	67.8	62.0	50.6	43.2	41.8	53.0
1947	37.2	45.2	49.8	53.9	61.3	62.0	66.8	65.8	63.6	55.4	47.0	42.9	54.2
1948	39.5	40.8	44.8	48.9	56.0	66.5	66.8	65.8	61.8	53.5	43.7	38.1	52.2
1949	27.6	39.1	45.7	52.4	59.2	61.7	65.9	66.5	63.2	48.6	49.9	41.4	51.7
1950	27.0	38.8	45.1	48.6	54.5	61.8	66.9	68.8	61.8	52.4	46.4	46.4	51.5
1951	39.8	42.9	42.0	53.5	56.8	64.5	67.1	65.7	63.1	53.7	45.7	37.5	52.7
1952	35.6	41.7	45.4	52.4	57.5	60.3	68.0	67.9	64.8	58.7	40.7	41.6	52.9
1953	47.3	43.8	45.9	49.9	54.4	58.6	66.2	65.6	62.5	54.3	48.6	43.7	53.4
1954	39.0	42.6	43.8	49.6	56.7	58.0	63.1	63.3	60.2	53.1	49.7	40.9	51.7
1955	39.7	40.4	41.5	46.5	52.9	60.7	63.5	65.5	60.4	53.6	41.4	39.2	50.4
1956	39.9	35.9	44.2	52.7	59.1	59.0	68.0	65.4	60.8	51.7	42.6	40.7	51.7
1957	31.2	41.7	46.2	51.8	58.9	62.1	65.6	64.5	65.3	52.8	44.0	43.9	52.3

MONTHLY MEAN TEMP

MONTHLY MEAN TEMPERATURE (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1958	43.6	48.6	45.5	50.9	61.8	65.2	70.6	70.3	62.3	55.2	45.5	43.6	55.3
1959	40.4	42.7	46.8	52.3	55.7	62.8	68.7	65.5	60.3	54.2	42.8	39.6	52.7
1960	35.4	42.3	45.0	50.6	54.0	63.0	69.1	65.4	61.5	54.5	46.5	38.7	52.2
1961	43.6	47.2	47.7	50.1	56.6	65.3	69.4	70.3	59.5	53.3	42.9	40.9	53.9
1962	38.6	43.0	45.3	52.6	53.9	61.6	66.4	66.0	63.3	55.1	47.6	42.6	53.0
1963	35.0	47.8	45.2	48.6	56.6	60.0	63.1	66.1	65.1	54.2	46.0	38.0	52.1
1964	40.9	40.1	43.8	46.7	52.6	58.7	64.5	63.7	58.4	53.2	41.0	37.0	50.1
1965	40.2	43.4	47.6	51.8	54.3	61.8	69.7	68.6	60.4	57.5	49.7	39.5	53.7
1966	40.3	42.8	47.2	50.6	57.0	62.4	66.4	67.5	64.4	53.7	47.1	44.2	53.6
1967	43.6	43.7	44.0	46.9	57.1	65.9	69.3	72.9	66.4	54.8	46.2	40.4	54.3
1968	39.3	48.2	48.2	48.0	56.3	62.2	68.6	65.8	61.5	52.1	46.5	37.3	52.8
1969	31.9	39.7	46.5	50.1	59.5	66.5	66.6	66.1	63.4	53.3	47.2	42.9	52.9
1970	40.6	46.0	46.9	48.4	57.0	65.9	69.2	68.2	60.7	53.0	47.1	40.0	53.6
1971	40.4	42.8	43.7	49.6	56.8	60.2	69.2	71.6	60.8	52.4	45.5	40.4	52.8
1972	39.2	43.8	49.8	48.0	60.2	64.0	70.9	71.7	61.2	53.0	48.2	37.4	53.9
1973	39.0	44.9	47.9	52.3	59.4	63.9	70.3	65.9	64.4	54.3	44.2	44.7	54.2
1974	38.0	43.0	47.2	51.3	55.7	64.4	67.1	68.9	67.3	55.2	48.1	44.1	54.2
1975	41.5	41.2	45.0	47.3	57.5	61.9	69.0	65.3	65.7	53.5	46.0	42.7	53.1
1976	42.2	42.1	44.4	50.3	56.6	60.4	67.2	65.5	64.2	54.7	47.0	39.5	52.8
1977	35.7	44.6	45.5	52.9	53.8	63.9	66.3	71.7	60.8	53.8	43.3	42.0	52.9
1978	40.1	44.7	49.1	50.5	54.7	65.1	68.4	67.6	60.9	54.7	39.1	35.3	52.5
1979	30.7	42.9	50.8	53.1	60.1	65.1	70.5	68.6	66.3	58.1	45.0	44.4	54.6
1980	35.1	42.5	46.3	53.8	57.3	60.7	68.9	66.4	63.8	56.0	48.5	44.0	53.6
1981	43.9	44.0	48.8	52.5	57.5	61.8	67.5	72.2	64.9	53.3	48.8	42.7	54.8
1982	39.7	43.6	48.5	49.0	57.6	66.0	67.5	68.6	63.2	54.9	44.4	41.7	53.7
1983	44.4	47.3	50.7	52.7	60.4	62.8	66.5	69.1	61.5	54.2	49.3	36.4	54.6
1984	42.2	45.9	51.1	50.4	56.4	62.2	69.1	69.4	63.7	52.9	46.7	38.3	54
1985	36.1	41.1	45.8	53.9	58.3	64.4	74.1	69.3	60.8	52.7	37.3	33.0	52.2
1986	42.5	43.7	51.3	50.2	57.6	66.3	65.3	72.3	61.5	57.0	47.7	40.6	54.7
1987	39.6	45.2	48.7	54.2	60.4	66.5	67.2	70.5	65.5	58.2	48.8	39.1	55.3
1988	39.0	44.7	47.2	52.2	56.4	62.4	68.4	68.0	64.0	58.3	47.5	42.0	54.2
1989	42.2	36.0	45.6	56.0	58.0	64.3	65.5	66.1	65.3	54.9	48.6	40.3	53.6
1990	43.4	41.9	49.4	54.5	56.7	63.6	71.2	70.9	67.0	53.9	48.4	34.7	54.6
1991	38.9	48.8	46.2	50.8	54.7	59.9	69.9	70.1	67.4	55.4	47.5	42.7	54.4
1992	44.5	48.1	52.3	55.4	63.1	67.4	70.2	69.8	62.3	55.9	46.3	39.3	56.2
1993	36.5	40.1	47.9	52.6	61.1	62.5	64.3	68.5	65.7	57.4	41.5	41.4	53.3
1994	44.5	40.9	50.2	54.2	60.7	62.9	71.1	70.2	67.6	42.7	42.7	42.3	55.1
1995	43.4	46.5	48.3	51.3	60.7	63.8	70.6	67.3	67.1	54.5	51.7	42.5	55.6
<b>Average Monthly Mean Temperature ALL YEARS (1871-1995)</b>													
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
AVG	39.3	42.7	47.2	51.8	57.6	62.6	67.7	67.5	62.6	54.6	46.1	41.2	53.4
<b>Average Monthly Mean Temperature 30 YEAR (1961-90)</b>													
AVG	39.6	43.6	47.3	51.0	57.1	63.5	68.2	68.6	63.3	54.5	46.1	40.2	53.6

WARMEST/COLDEST MONTHS

MONTHLY and ANNUAL TEMPERATURE DATA  
WARMEST AND COLDEST 5\*

	AVERAGE MAXIMUM		AVERAGE MINIMUM		MEAN							
	Warmest 5	Coldest 5	Warmest 5	Coldest 5	Warmest 5	Coldest 5						
JAN	52.0	1953	32.6	1930	42.6	1953	21.0	1949	47.3	1953	27.0	1950
	51.5	1934	32.8	1950	42.3	1934	21.2	1950	46.9	1934	27.6	1949
	51.2	1981	34.1	1916	41.4	1918	22.0	1888	45.8	1914	28.0	1930
	50.5	1992	34.4	1937	41.2	1914	23.5	1930	45.4	1918	29.2	1888
	50.4	1983	34.5	1949	40.3	1925	24.6	1875	44.8	1925	29.6	1916
	NORMAL		45.4 deg			NORMAL		33.7 deg			NORMAL	
FEB	57.8	1968	38.4	1887	42.9	1926	25.7	1887	49.4	1934	32.0	1887
	57.7	1991	38.9	1936	42.6	1958	25.8	1883	48.8	1991	33.9	1936
	56.4	1934	40.9	1956	42.5	1934	28.5	1989	48.7	1926	35.6	1929
	56.2	1992	41.9	1929	42.4	1940	28.9	1936	48.6	1958	35.9	1956
	55.3	1963	42.0	1883	42.2	1924	29.4	1929	48.2	1968	36.0	1989
	NORMAL		51.0 deg			NORMAL		36.1 deg			NORMAL	
MAR	64.0	1934	45.7	1897	46.4	1934	33.6	1954	55.2	1934	40.5	1897
	63.9	1889	48.5	1880	44.5	1940	33.8	1955	53.8	1889	41.5	1955
	63.7	1992	48.6	1917	44.2	1914	34.1	1969	53.5	1926	41.8	1880
	63.5	1941	48.7	1904	44.1	1928	34.5	1951	53.2	1885	42.0	1951
	63.4	1926	49.2	1955	43.7	1889	35.0	1880	52.6	1915	42.6	1917
	NORMAL		56.0 deg			NORMAL		38.6 deg			NORMAL	
APRIL	70.4	1926	51.1	1893	50.0	1926	37.4	1964	60.2	1926	45.6	1872
	70.0	1934	54.1	1896	49.5	1934	37.6	1967	59.8	1934	45.9	1893
	68.3	1885	55.0	1955	47.5	1881	37.9	1955	56.0	1989	46.5	1955
	66.8	1989	55.8	1920	47.1	1940	38.0	1975	55.8	1930	46.7	1964
	66.6	1875	55.9	1963	46.6	1936	38.2	1968	55.6	1936	46.9	1967
	NORMAL		60.6 deg			NORMAL		41.3 deg			NORMAL	
MAY	76.6	1992	57.5	1899	52.1	1934	41.9	1964	63.1	1992	51.1	1899
	75.1	1881	59.6	1896	51.9	1940	42.8	1955	62.7	1931	52.0	1896
	74.5	1885	60.9	1908	51.7	1936	43.2	1950	62.6	1940	52.6	1964
	74.1	1928	61.0	1933	51.4	1925	44.0	1965	62.4	1928	52.8	1908
	73.6	1884	61.6	1962	50.9	1993	44.3	1966	61.8	1958	52.9	1955
	NORMAL		67.1 deg			NORMAL		47.0 deg			NORMAL	
JUNE	79.5	1992	65.3	1893	57.1	1948	49.0	1964	67.5	1940	57.6	1893
	79.4	1889	65.4	1901	56.9	1969	49.7	1965	67.4	1992	58.0	1954
	79.3	1987	66.2	1954	56.8	1958	49.9	1976	67.1	1918	58.6	1953
	79.2	1940	66.3	1894	56.5	1936	50.1	1877	67.0	1926	58.7	1964
	78.8	1918	66.4	1953	56.2	1926	50.2	1899	66.5	1987	58.8	1894
	NORMAL		74.0 deg			NORMAL		52.9 deg			NORMAL	
JULY	87.5	1985	72.0	1963	60.7	1985	52.9	1901	74.1	1985	62.8	1901
	84.8	1906	72.2	1955	59.8	1906	53.1	1964	72.3	1906	63.1	1963
	84.6	1994	72.6	1954	59.5	1995	53.4	1878	71.4	1941	63.5	1955
	84.5	1941	72.7	1916	59.2	1938	53.5	1954	71.2	1990	63.9	1909
	84.4	1889	72.8	1901	59.0	1908	53.8	1962	71.1	1994	64.0	1878
	NORMAL		79.9 deg			NORMAL		56.5 deg			NORMAL	



WARMEST/COLDEST MONTHS

TEMPERATURE DATA: WARMEST AND COLDEST 5\*  
(continued)

	AVERAGE MAXIMUM		AVERAGE MINIMUM		MEAN	
	Warmest 5	Coldest 5	Warmest 5	Coldest 5	Warmest 5	Coldest 5
AUG	88.1 1967	69.1 1889	59.9 1897	52.1 1876	72.9 1967	61.5 1899
	86.2 1986	71.6 1954	59.8 1915	52.2 1964	72.3 1986	62.8 1876
	85.5 1981	72.3 1900	59.6 1990	52.4 1889	72.2 1981	63.1 1900
	85.0 1972	73.3 1881	59.4 1983	52.8 1885	71.7 1977	63.3 1954
	84.1 1987	73.5 1876	59.3 1977	53.2 1909	71.6 1971	63.5 1874
	NORMAL	80.3 deg	NORMAL	56.9 deg	NORMAL	68.6 deg
SEP	81.9 1974	65.2 1893	57.5 1940	46.5 1964	67.6 1994	57.4 1895
	81.4 1991	65.7 1895	57.4 1938	47.9 1965	67.5 1938	57.9 1893
	80.1 1993	66.0 1911	56.9 1918	48.9 1955	67.4 1991	58.0 1884
	80.0 1967	66.5 1884	56.6 1995	49.1 1895	67.3 1974	58.3 1901
	79.7 1989	67.0 1901	56.3 1935	49.2 1908	67.2 1935	58.4 1964
	NORMAL	74.6 deg	NORMAL	52.0 deg	NORMAL	63.3 deg
OCT	71.9 1987	55.8 1881	51.8 1940	39.5 1949	59.2 1937	42.7 1994
	71.8 1952	56.3 1893	51.1 1901	41.9 1972	59.1 1901	48.6 1949
	69.1 1885	57.6 1949	51.0 1937	42.3 1970	58.7 1952	49.5 1893
	68.2 1936	58.1 1882	50.9 1875	42.4 1946	58.6 1940	49.9 1873
	67.9 1944	58.3 1919	50.6 1914	42.5 1978	58.5 1944	50.3 1881
	NORMAL	64.0 deg	NORMAL	44.9 deg	NORMAL	54.5 deg
NOV	58.4 1949	42.9 1985	47.9 1899	31.2 1978	52.5 1899	37.3 1985
	57.6 1885	43.2 1896	47.8 1910	31.6 1985	51.7 1995	38.6 1896
	57.4 1917	46.9 1955	46.2 1995	31.8 1952	51.4 1904	39.1 1978
	57.3 1923	47.6 1978	45.7 1934	33.8 1993	50.6 1926	40.7 1952
	57.1 1995	48.2 1935	45.2 1937	34.0 1896	50.4 1923	41.0 1964
	NORMAL	52.6 deg	NORMAL	39.5 deg	NORMAL	46.1 deg
DEC	52.7 1875	37.5 1884	44.3 1917	25.5 1884	48.4 1917	31.5 1884
	52.5 1914	38.5 1919	42.8 1933	26.8 1985	47.7 1875	33.0 1985
	51.4 1950	39.2 1985	42.7 1875	28.6 1919	46.6 1933	33.6 1919
	51.0 1939	40.0 1990	41.7 1939	28.9 1978	46.5 1882	34.7 1990
	50.9 1925	40.2 1983	41.6 1882	29.4 1990	46.4 1950	35.3 1978
	NORMAL	45.6 deg	NORMAL	34.8 deg	NORMAL	40.2 deg
<b>ANNUAL</b>						
	66.0 1885	57.1 1893	49.2 1934	40.8 1964	57.3 1934	50.1 1964
	65.8 1992	58.7 1955	48.6 1940	42.2 1955	56.8 1926	50.4 1955
	65.4 1994	58.8 1880	48.4 1926	42.7 1949	56.5 1940	50.9 1880
	65.2 1987	59.0 1899	47.7 1939	43.0 1880	56.2 1992	51.5 1950
	64.6 1958	59.2 1916	47.6 1938	43.1 1956	55.8 1939	51.7 1954
	NORMAL	62.6 deg	NORMAL	44.5 deg	NORMAL	53.6 deg

\*Results reflect data from official records dating from 1871-1995. Normal values are the 30-year value based on 1961-90 data. All temperatures are in degrees F. In some cases, identical months had the same temperature value. As a result the most recent occurrence is listed.

## EXTREME MAX TEMP

## MONTHLY EXTREME MAXIMUM TEMPERATURES (1871-1995)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
OFFICIAL RECORDS START NOVEMBER 1, 1871													
1871													
1872	Maximum Temperature Data missing from 1871-June 1874												
1873													
1874	---	---	---	---	---	82	88	84	88	77	63	57	---
1875	53	54	83	75	82	82	96	88	86	78	63	63	96
1876	58	59	59	67	82	99	90	84	90	79	63	56	99
1877	58	62	68	78	79	86	91	89	88	73	62	62	91
1878	55	58	69	74	86	97	85	87	86	70	62	59	97
1879	52	60	74	77	82	82	92	87	85	68	61	58	92
1880	57	52	58	85	76	90	92	88	80	74	64	63	92
1881	57	63	76	80	82	85	90	85	84	64	58	58	90
1882	55	52	70	78	85	94	95	91	85	67	60	60	95
1883	56	60	75	74	84	87	94	80	87	64	60	56	94
1884	59	65	67	80	90	89	84	94	72	72	63	55	94
1885	55	59	72	82	94	86	99	94	85	82	65	59	99
1886	60	65	79	74	89	95	94	90	93	76	58	65	95
1887	58	63	75	69	99	95	93	90	87	75	68	57	99
1888	62	61	68	84	91	87	97	92	90	82	58	59	97
1889	55	64	78	77	88	94	96	87	89	80	64	53	96
1890	55	60	66	85	87	82	95	96	84	72	73	57	96
1891	61	48	60	72	84	87	102	97	88	83	68	58	102
1892	58	60	76	76	93	94	88	90	90	82	62	55	94
1893	56	53	62	62	78	81	92	94	77	67	62	58	94
1894	61	54	67	76	89	90	94	94	89	73	57	56	94
1895	57	58	66	82	86	97	94	91	79	79	63	57	97
1896	61	62	68	67	81	90	93	91	89	78	60	62	93
1897	57	58	56	89	93	83	92	95	89	81	66	59	95
1898	50	61	63	81	85	90	95	97	88	70	57	55	97
1899	58	59	61	73	68	81	93	84	87	77	66	58	93
1900	61	57	76	84	78	90	90	81	87	74	63	60	90
1901	57	68	67	70	87	87	83	94	85	78	62	56	94
1902	61	66	62	72	90	86	95	97	87	82	62	58	97
1903	57	59	72	73	84	97	91	90	86	77	65	54	97
1904	58	58	61	87	81	99	100	95	87	80	67	55	100
1905	58	68	77	84	83	83	99	90	87	69	66	54	99
1906	56	59	70	90	89	92	101	89	84	83	65	60	101
1907	55	60	67	79	93	91	102	86	93	80	66	59	102
1908	54	60	66	82	77	92	92	94	86	79	70	54	94
1909	59	60	70	78	86	90	88	91	93	80	63	58	93
1910	53	56	74	89	86	94	97	91	82	75	65	56	97
1911	54	52	75	79	84	87	99	90	82	78	63	55	99
1912	58	60	71	72	89	93	96	93	84	72	61	54	96
1913	54	63	67	76	84	87	98	93	87	75	60	55	98

## EXTREME MAX TEMP

MONTHLY EXTREME MAXIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1914	62	57	71	76	87	94	94	93	84	72	64	51	94
1915	50	60	79	82	81	95	100	97	84	74	59	55	100
1916	54	58	68	73	81	92	86	96	85	73	58	51	96
1917	55	61	59	67	78	90	91	92	83	85	66	65	92
1918	59	59	76	82	79	91	91	94	90	78	60	61	94
1919	61	53	73	75	82	83	100	96	85	78	65	61	100
1920	57	60	62	78	87	87	97	98	89	73	61	58	98
1921	57	64	69	73	80	83	89	90	78	79	68	62	90
1922	52	56	63	72	94	89	95	92	93	78	56	61	95
1923	56	62	82	85	85	94	93	95	95	86	67	55	95
1924	60	64	60	80	88	98	99	88	92	71	59	60	99
1925	58	60	65	79	88	101	90	96	90	78	60	62	101
1926	60	65	76	93	87	99	104	91	90	77	69	63	104
1927	56	57	68	81	86	92	101	96	84	75	70	59	101
1928	59	60	76	74	93	86	99	88	90	74	61	59	99
1929	51	52	66	75	82	89	93	95	87	80	67	59	95
1930	54	63	83	77	78	94	92	96	97	69	69	55	97
1931	64	58	65	86	93	91	101	96	89	79	67	59	101
1932	54	68	67	75	81	91	86	95	91	86	67	57	95
1933	58	58	63	76	80	91	94	102	82	81	62	60	102
1934	59	62	76	90	90	88	88	95	95	85	68	57	95
1935	65	58	62	75	83	96	105	100	93	81	55	55	105
1936	55	56	67	85	89	85	88	97	88	88	64	58	97
1937	44	60	66	67	84	92	89	92	97	79	63	60	97
1938	56	57	69	75	89	92	101	86	95	78	57	61	101
1939	58	53	76	84	96	86	100	100	88	80	66	62	100
1940	60	58	72	82	91	98	92	99	88	78	59	62	99
1941	55	61	75	79	86	95	103	96	80	71	66	60	103
1942	54	55	74	77	80	100	105	96	91	81	59	57	105
1943	52	63	61	82	82	88	91	91	91	83	62	57	91
1944	55	57	68	79	90	90	104	95	101	78	60	58	104
1945	62	60	61	75	89	91	93	100	92	84	59	64	100
1946	55	58	69	79	85	86	102	93	86	71	58	57	102
1947	58	62	80	86	92	85	91	88	91	76	63	55	92
1948	52	65	72	70	85	93	92	85	94	73	55	52	93
1949	41	62	61	74	86	87	93	93	91	68	68	56	93
1950	48	61	62	77	85	88	90	93	91	72	60	64	93
1951	58	62	63	81	85	97	93	94	91	79	64	51	97
1952	57	59	65	76	85	83	98	99	96	89	62	56	99
1953	60	58	72	70	86	80	91	95	88	77	61	59	95
1954	58	60	63	73	86	84	82	82	83	72	69	54	86
1955	52	55	60	73	77	95	86	90	98	75	61	60	95
1956	57	50	70	84	89	81	102	89	85	81	58	58	102
1957	54	62	62	87	83	79	87	86	92	72	60	58	92

EXTREME MAX TEMP

MONTHLY EXTREME MAXIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1958	62	66	67	77	89	95	102	95	97	84	61	62	102
1959	57	61	65	77	83	86	98	88	89	73	62	59	98
1960	58	57	73	77	79	86	97	100	89	78	61	54	100
1961	59	60	65	71	91	94	104	98	83	80	61	59	104
1962	59	59	69	80	70	85	92	87	93	75	67	58	93
1963	55	65	67	70	91	90	83	93	89	74	59	52	93
1964	53	60	74	67	84	83	89	94	81	80	56	59	94
1965	55	61	72	80	78	93	107	91	88	82	63	60	107
1966	55	60	74	75	87	95	89	93	91	81	66	58	95
1967	58	62	61	66	87	91	99	102	94	73	63	58	102
1968	56	70	67	81	79	93	99	92	92	72	62	52	99
1969	53	57	73	72	88	97	91	88	92	74	70	56	97
1970	61	64	65	66	86	98	102	97	88	90	69	59	102
1971	60	62	65	76	91	90	97	101	82	82	60	55	101
1972	58	62	72	78	92	88	97	104	97	78	63	61	104
1973	59	63	68	74	92	93	99	94	97	70	58	56	99
1974	62	56	70	75	78	90	94	95	96	81	66	60	96
1975	59	64	63	72	88	90	95	87	92	86	73	60	95
1976	58	60	66	82	84	89	92	86	87	82	68	54	92
1977	56	68	64	79	76	88	93	105	88	72	63	61	105
1978	55	64	71	74	84	91	98	101	80	78	61	54	101
1979	49	57	73	83	88	92	104	88	92	86	64	62	104
1980	55	59	64	81	79	80	101	95	93	90	69	64	101
1981	60	64	67	79	82	87	95	107	99	72	67	57	107
1982	55	65	73	79	85	100	91	99	91	76	62	60	100
1983	58	63	67	78	100	88	93	91	80	72	62	55	100
1984	62	58	68	79	80	87	100	95	85	82	61	51	100
1985	53	61	66	79	88	96	101	93	82	78	65	48	101
1986	63	68	70	78	92	96	88	100	91	77	64	53	100
1987	55	61	71	86	93	95	93	102	94	92	68	60	102
1988	58	71	71	80	88	89	100	101	105	91	63	60	105
1989	60	54	64	81	80	93	87	87	92	78	65	61	93
1990	61	64	71	82	86	93	99	101	93	72	63	55	101
1991	62	67	71	78	75	83	100	92	94	86	63	54	100
1992	60	64	71	80	93	100	101	101	86	75	59	52	101
1993	59	58	67	70	87	86	85	97	93	84	62	65	97
1994	57	55	77	76	85	84	103	93	93	78	56	59	103
1995	62	67	72	79	87	97	99	92	92	75	67	63	99
<b>Monthly EXTREME MAXIMUM TEMP ALL YEARS (1874-1995)</b>													
Temp	64	71	83	93	100	101	107	107	105	92	73	65	107
Year	1931	1988	1930	1926	1983	1925	1965	1981	1988	1987	1975	1993	1981
<b>Monthly EXTREME MAXIMUM TEMP (1941-1995)</b>													
Temp	63	71	80	87	100	100	107	107	105	92	73	65	107
Year	1986	1988	1947	1957	1983	1992	1965	1981	1988	1987	1975	1993	1981

## MONTHLY EXTREME MINIMUM TEMPERATURES (1871-1995)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
OFFICIAL RECORDS START NOVEMBER 1, 1871													
1871													
1872	Minimum Temperature Data missing from 1871-June 1874												
1873													
1874	---	---	---	---	---	43	50	46	30	32	27	31	---
1875	3	24	34	28	40	39	46	46	44	36	28	33	3
1876	20	32	33	33	36	45	49	43	44	42	34	24	20
1877	27	25	31	35	38	44	47	48	39	31	32	25	25
1878	18	33	31	32	33	44	49	47	43	33	32	23	18
1879	20	25	33	36	41	44	48	50	44	37	25	3	3
1880	26	26	26	33	35	42	46	46	42	34	22	19	19
1881	24	26	31	40	40	45	46	46	40	32	29	29	24
1882	26	18	29	31	36	48	47	44	39	37	28	31	18
1883	8	7	34	36	40	44	48	44	45	37	34	24	7
1884	25	7	28	40	40	47	48	51	43	36	34	12	7
1885	17	32	33	35	40	42	49	48	41	34	34	27	17
1886	15	31	30	36	36	46	50	48	44	34	26	30	15
1887	29	9	31	31	34	44	46	45	40	33	25	29	9
1888	-2	30	24	32	38	48	46	52	44	37	31	31	-2
1889	24	23	35	33	42	43	46	46	38	38	32	25	23
1890	12	10	24	32	40	45	48	48	40	35	30	28	10
1891	25	25	23	37	39	42	50	51	39	40	34	28	23
1892	26	27	36	33	39	42	47	47	42	38	33	20	20
1893	12	8	32	32	40	44	48	46	43	33	28	28	8
1894	27	18	30	34	32	43	49	48	44	39	32	27	18
1895	25	28	27	32	36	44	47	44	36	31	27	30	25
1896	23	29	20	34	37	43	53	55	42	40	11	27	11
1897	22	30	23	36	40	41	50	51	42	37	29	27	22
1898	25	32	27	32	39	43	48	52	44	41	29	21	21
1899	20	9	31	31	38	39	51	46	46	34	38	30	9
1900	28	19	35	34	43	49	48	45	41	37	19	25	19
1901	26	28	34	33	41	43	45	50	41	44	35	26	26
1902	13	25	30	34	41	43	46	44	39	42	31	30	13
1903	29	24	30	34	39	45	48	49	41	38	31	29	24
1904	30	29	30	32	38	45	43	48	42	40	37	28	28
1905	25	17	32	37	41	48	51	46	45	32	30	27	17
1906	31	31	22	34	40	43	54	48	41	35	30	29	22
1907	13	28	32	35	41	46	52	49	46	44	34	32	13
1908	27	25	30	34	38	42	51	46	35	35	32	23	23
1909	6	33	34	36	37	43	47	46	41	40	28	24	6
1910	21	23	33	34	44	44	51	48	45	40	34	31	21
1911	23	27	31	30	39	43	47	51	43	34	24	29	23
1912	20	32	30	34	43	45	53	50	42	38	31	30	20
1913	22	26	29	36	41	47	51	50	44	38	34	30	22

EXTREME MIN TEMP

MONTHLY EXTREME MINIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1914	33	28	38	37	40	42	50	49	45	43	33	22	22
1915	26	30	38	37	36	47	54	54	46	38	32	26	26
1916	13	22	32	36	36	41	50	46	45	34	29	24	13
1917	22	30	29	37	39	43	50	51	50	34	34	34	22
1918	24	22	31	32	40	44	48	48	45	38	34	25	22
1919	23	33	33	34	39	44	49	50	44	30	26	3	3
1920	23	30	32	35	38	43	50	44	48	38	34	31	23
1921	27	31	34	32	40	50	46	50	44	42	29	21	21
1922	16	22	30	35	37	46	49	52	48	39	28	18	16
1923	26	14	27	39	40	48	52	53	45	39	32	17	14
1924	14	32	32	32	41	46	50	47	43	37	30	11	11
1925	29	34	32	38	45	47	52	47	48	38	29	32	29
1926	31	37	35	41	42	48	51	54	43	41	36	19	19
1927	12	31	34	34	43	46	53	49	47	34	34	14	12
1928	15	31	32	37	40	48	50	52	43	35	31	25	15
1929	15	16	33	33	43	47	53	50	45	38	30	34	15
1930	13	31	33	38	37	45	50	51	44	38	29	28	13
1931	30	32	33	37	40	47	53	52	45	39	25	25	25
1932	22	22	31	38	41	46	49	54	46	40	33	16	16
1933	23	12	33	34	43	45	52	52	40	38	35	34	12
1934	34	33	38	39	43	47	52	53	39	42	39	34	33
1935	12	29	32	36	41	42	49	49	50	29	23	28	12
1936	27	14	31	31	41	51	53	52	44	36	30	27	14
1937	14	19	36	38	39	47	50	48	44	44	38	32	14
1938	26	31	34	38	40	46	50	49	53	39	32	29	26
1939	33	24	32	38	40	47	52	49	47	38	35	28	24
1940	27	32	39	40	44	46	51	52	46	41	30	29	27
1941	28	28	30	37	38	46	49	51	43	39	28	24	27
1942	19	26	31	37	38	45	51	48	40	37	29	31	19
1943	3	29	31	36	37	45	48	48	42	39	32	27	3
1944	27	27	24	34	37	43	47	48	42	40	28	25	24
1945	24	28	29	31	43	43	47	48	37	35	29	22	22
1946	27	27	31	32	40	46	49	48	38	26	28	20	20
1947	18	25	30	34	41	45	50	46	40	42	29	31	18
1948	24	24	30	32	34	52	48	50	41	32	29	22	22
1949	9	23	31	32	36	41	48	45	40	27	29	28	9
1950	-2	-3	28	31	38	45	48	48	36	33	26	35	-3
1951	16	26	26	29	37	46	48	44	39	31	31	22	16
1952	20	28	28	32	33	42	47	49	42	37	18	25	18
1953	29	27	28	31	37	43	48	48	38	33	31	33	27
1954	19	25	23	31	29	42	45	48	35	32	27	30	26
1955	29	20	19	29	36	44	43	45	38	38	13	23	13
1956	13	16	24	30	36	46	48	48	42	35	22	23	13
1957	6	22	27	32	43	46	46	47	39	34	26	32	6

EXTREME MIN TEMP

MONTHLY EXTREME MINIMUM TEMPERATURES (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1958	26	27	27	34	36	50	51	50	42	30	23	27	23
1959	16	29	31	33	38	45	47	46	43	31	25	22	16
1960	22	19	22	33	33	47	47	47	41	33	30	23	19
1961	23	35	30	33	39	42	49	51	34	32	23	21	21
1962	9	20	28	35	34	44	44	46	42	38	31	22	9
1963	11	32	28	33	36	44	46	47	44	30	26	20	11
1964	28	23	29	30	32	42	47	46	39	32	25	6	6
1965	29	29	25	32	35	41	50	46	34	36	32	19	19
1966	24	26	29	32	37	39	52	48	46	34	33	32	24
1967	31	27	25	31	39	46	52	51	43	36	25	13	13
1968	24	26	27	30	38	45	48	49	44	35	31	8	8
1969	16	23	22	33	36	50	49	46	42	31	28	24	16
1970	23	31	29	30	37	45	50	45	36	29	27	26	23
1971	20	23	22	30	40	45	46	52	40	26	27	23	20
1972	18	18	29	30	37	47	49	51	39	30	30	8	8
1973	22	26	33	33	40	44	50	45	44	37	29	30	22
1974	12	29	25	34	39	45	49	48	43	35	31	28	12
1975	26	27	27	30	37	45	51	48	42	36	29	26	26
1976	26	24	25	31	41	42	46	49	45	33	22	23	22
1977	17	28	29	31	40	41	46	51	42	37	27	26	17
1978	23	27	28	33	35	47	49	48	44	31	18	13	13
1979	14	16	33	38	42	44	47	52	45	38	30	28	14
1980	13	25	33	31	42	45	53	44	44	33	33	22	13
1981	28	25	28	31	40	48	45	50	43	34	26	29	25
1982	14	21	31	31	37	47	49	47	43	35	24	22	14
1983	25	28	34	33	43	49	50	51	37	36	29	12	12
1984	19	30	32	36	42	46	50	50	42	35	31	18	18
1985	21	15	27	36	37	45	53	50	39	30	13	20	13
1986	28	25	33	33	37	46	47	50	42	39	30	27	25
1987	23	25	32	34	43	45	51	50	45	37	28	23	23
1988	22	22	29	32	38	42	48	50	44	35	31	26	22
1989	28	9	19	33	42	47	51	51	44	32	32	25	9
1990	26	20	29	36	38	49	51	50	47	37	32	12	12
1991	20	30	32	33	40	42	52	49	47	27	30	26	20
1992	29	29	31	37	39	46	54	47	42	33	31	27	27
1993	20	24	31	38	42	47	50	48	42	39	18	25	18
1994	27	22	29	36	41	46	51	51	49	38	28	24	22
1995	29	16	28	35	43	47	52	48	48	28	29	28	16
<b>Monthly EXTREME MINIMUM TEMP ALL YEARS (1874-1995)</b>													
Temp	- 2	- 3	19	28	29	39	43	44	30	26	11	3	- 3
Year	1950	1950	1989	1875	1954	1966	1955	1980	1874	1971	1896	1919	1950
<b>Monthly EXTREME MINIMUM TEMP (1941-1995)</b>													
Temp	- 2	- 3	19	29	29	39	43	44	34	26	13	6	- 3
Year	1950	1950	1989	1955	1954	1966	1955	1980	1965	1971	1985	1964	1950

FIRST AND LAST HIGHS

FIRST AND LAST OCCURRENCE OF HIGH TEMPERATURE OF AT LEAST...

Year	70 Degrees				80 Degrees				90 Degrees				100 Degrees			
	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date		
1875	73	4/10	75	10/14	80	4/12	80	9/25	90	7/4	90	7/26	-	-	-	-
1876	72	5/7	72	10/14	82	5/8	82	9/30	92	6/16	90	9/1	-	-	-	-
1877	74	4/25	73	10/17	80	6/8	83	9/2	90	7/15	91	7/16	-	-	-	-
1878	72	4/1	70	10/4	82	5/7	86	9/10	90	6/5	92	6/19	-	-	-	-
1879	74	3/31	71	9/26	82	5/31	80	9/20	91	7/25	92	7/26	-	-	-	-
1880	77	4/8	74	10/4	80	4/28	80	9/25	90	6/27	92	7/16	-	-	-	-
1881	76	3/29	72	9/22	80	4/2	81	9/14	90	7/23	90	7/23	-	-	-	-
1882	70	3/30	77	9/26	80	5/21	82	10/7	94	6/2	91	8/30	-	-	-	-
1883	71	3/14	74	9/23	84	5/10	87	9/21	90	7/5	94	7/7	-	-	-	-
1884	73	4/5	72	10/17	80	4/7	87	8/29	90	5/31	90	8/8	-	-	-	-
1885	70	3/14	70	10/21	80	4/10	80	9/30	94	5/5	90	8/28	-	-	-	-
1886	79	3/29	76	10/3	81	5/16	81	9/29	95	6/2	90	9/12	-	-	-	-
1887	75	3/22	71	10/30	80	5/15	84	9/28	90	5/17	90	8/10	-	-	-	-
1888	77	4/11	72	10/11	84	4/19	82	10/5	91	5/28	90	9/2	-	-	-	-
1889	70	3/4	70	10/21	82	5/10	80	10/4	94	6/2	91	7/26	-	-	-	-
1890	70	4/9	73	11/2	85	4/28	83	9/28	92	6/6	96	8/13	-	-	-	-
1891	70	4/15	72	10/18	80	5/2	82	10/8	92	6/26	90	8/28	102	7/23	102	7/23
1892	76	3/10	71	10/7	84	5/19	82	10/2	93	5/20	90	9/11	-	-	-	-
1893	74	5/6	72	9/25	81	6/4	80	8/31	90	7/30	94	8/31	-	-	-	-
1894	76	4/19	73	10/4	80	5/18	89	9/10	90	6/2	94	8/27	-	-	-	-
1895	78	4/21	73	10/20	82	4/22	83	8/29	91	6/26	91	8/5	-	-	-	-
1896	74	5/21	75	10/17	81	5/29	80	9/22	90	6/25	90	8/23	-	-	-	-
1897	77	4/9	71	10/17	83	4/15	81	10/6	92	5/12	91	8/21	-	-	-	-
1898	70	4/12	70	10/7	80	4/12	80	9/17	90	6/6	90	8/24	-	-	-	-
1899	73	4/7	73	10/5	81	6/16	80	9/28	93	7/26	91	7/27	-	-	-	-
1900	72	3/14	72	10/16	84	4/29	87	9/12	90	6/12	90	7/20	-	-	-	-
1901	70	4/10	75	10/25	87	5/25	81	9/19	92	8/4	91	8/22	-	-	-	-
1902	72	4/15	73	10/11	81	5/25	82	10/3	90	5/26	97	8/10	-	-	-	-
1903	70	3/22	72	10/23	84	5/5	83	9/27	97	6/7	90	8/11	-	-	-	-
1904	72	4/8	73	10/25	81	4/10	80	10/1	99	6/29	95	8/4	100	7/25	100	7/25
1905	72	3/7	70	9/23	84	4/23	81	9/23	99	7/8	90	8/8	-	-	-	-
1906	70	3/28	70	10/26	80	4/6	83	10/9	90	4/20	92	7/27	101	7/3	101	7/3
1907	71	4/12	76	10/11	85	5/15	80	10/10	95	5/30	93	9/9	102	7/30	102	7/30
1908	70	4/11	75	10/8	82	4/30	82	9/30	92	6/30	92	8/19	-	-	-	-
1909	78	4/8	70	10/15	86	5/2	80	10/11	90	6/10	93	9/5	-	-	-	-
1910	70	3/11	74	10/15	84	4/18	80	9/19	94	6/10	91	8/16	-	-	-	-
1911	70	3/19	70	10/15	82	5/29	82	9/1	91	7/12	90	8/23	-	-	-	-
1912	71	3/30	70	10/14	83	5/7	82	9/21	93	6/6	90	8/22	-	-	-	-
1913	70	4/9	75	10/1	84	5/6	85	9/20	92	7/18	91	8/21	-	-	-	-
1914	71	3/18	71	10/27	80	5/1	81	9/24	94	6/15	90	8/13	-	-	-	-
1915	72	3/20	70	10/28	82	4/16	84	9/20	95	6/30	94	8/29	100	7/20	100	7/20
1916	70	4/2	73	10/10	81	5/2	84	9/21	91	6/15	92	8/25	-	-	-	-
1917	78	5/8	70	10/14	80	6/13	84	10/8	90	6/13	90	8/24	-	-	-	-
1918	78	4/19	71	10/12	82	4/20	88	9/27	91	6/5	90	9/16	-	-	-	-
1919	71	3/22	77	10/7	82	5/21	83	9/25	90	7/14	92	8/24	100	7/14	100	7/14
1920	71	4/25	70	10/5	82	5/6	82	9/29	97	7/7	91	8/21	-	-	-	-
1921	71	4/8	71	10/10	80	5/13	80	8/29	90	8/7	90	8/7	-	-	-	-
1922	71	5/12	78	10/8	84	5/15	81	9/25	90	5/30	93	9/11	-	-	-	-
1923	71	3/26	70	10/20	82	3/29	86	10/1	94	6/28	95	9/7	-	-	-	-



FIRST AND LAST HIGHS

Year	70 Degrees				80 Degrees				90 Degrees				100 Degrees			
	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date		
1924	73	4/6	70	10/22	80	4/26	82	10/28	90	6/1	92	9/12	-	-	-	-
1925	78	4/8	71	10/21	82	5/4	80	9/23	99	6/24	90	9/23	101	6/25	101	6/25
1926	70	3/2	70	10/24	82	4/13	80	9/11	93	4/27	90	9/4	104	7/10	104	7/10
1927	70	4/12	70	11/3	81	4/24	81	9/11	92	6/20	94	8/17	101	7/23	101	7/23
1928	73	3/18	74	10/8	81	5/13	80	9/22	91	5/20	90	9/22	-	-	-	-
1929	72	4/24	73	10/24	81	5/18	80	10/15	90	7/1	95	8/10	-	-	-	-
1930	72	3/26	75	9/26	83	3/28	83	9/20	94	6/15	97	9/2	-	-	-	-
1931	70	4/9	79	10/15	81	4/26	89	5/4	91	5/29	96	8/28	101	7/19	101	7/19
1932	73	4/9	70	10/7	81	5/5	86	10/4	91	6/10	91	9/10	-	-	-	-
1933	70	4/5	72	10/23	80	5/28	80	10/6	91	6/12	91	8/26	102	8/13	102	8/13
1934	75	3/11	10	10/10	82	4/11	85	10/10	90	5/22	95	9/3	-	-	-	-
1935	70	4/10	71	10/17	83	5/20	81	10/1	90	6/5	93	9/8	105	7/13	100	8/12
1936	71	4/11	70	10/18	83	5/10	88	10/10	90	8/20	97	8/28	-	-	-	-
1937	76	5/1	70	10/27	84	5/2	80	9/14	90	6/1	97	9/14	-	-	-	-
1938	70	4/7	75	10/22	80	5/19	80	9/27	92	6/6	95	9/17	101	7/20	101	7/21
1939	70	3/18	70	10/20	81	5/11	80	10/13	96	5/13	94	8/19	100	8/2	100	8/2
1940	70	3/21	79	10/19	82	5/1	80	10/18	97	6/11	94	8/29	-	-	-	-
1941	70	3/25	71	10/22	84	5/10	80	9/24	95	6/11	93	8/19	101	7/13	100	7/17
1942	74	3/30	73	10/18	80	5/20	80	10/9	91	6/29	90	8/24	100	6/30	102	7/2
1943	77	4/11	71	10/14	82	4/12	83	10/7	91	7/20	90	9/24	-	-	-	-
1944	73	4/1	75	10/27	80	5/3	83	9/27	90	5/27	98	9/10	104	7/18	101	9/5
1945	70	4/19	76	10/14	83	5/1	80	10/8	91	6/17	92	9/12	100	8/5	100	8/5
1946	77	4/17	71	10/11	81	5/2	80	9/29	99	7/19	90	8/22	102	7/20	102	7/20
1947	74	3/14	71	10/12	80	3/16	87	9/24	90	5/23	91	9/23	-	-	-	-
1948	72	3/28	73	10/2	85	5/24	86	9/12	90	6/6	93	5/10	-	-	-	-
1949	74	4/4	70	9/29	81	5/6	80	9/27	93	7/14	91	9/27	-	-	-	-
1950	77	4/19	79	9/23	80	5/11	80	9/22	90	7/12	91	9/21	-	-	-	-
1951	70	4/2	75	10/9	81	4/12	84	9/21	95	6/28	91	9/14	-	-	-	-
1952	77	5/10	72	10/25	85	5/16	89	10/6	92	7/7	93	9/22	-	-	-	-
1953	70	4/19	70	10/8	80	5/4	82	9/20	91	7/6	95	8/14	-	-	-	-
1954	72	4/11	71	10/31	81	5/7	83	9/25	-	-	-	-	-	-	-	-
1955	73	4/6	73	10/17	85	6/7	86	9/6	94	6/8	93	9/5	-	-	-	-
1956	70	3/17	76	10/7	80	4/19	81	10/6	98	7/7	93	8/12	102	7/19	102	7/19
1957	72	4/27	70	10/11	81	4/28	80	9/30	90	9/13	90	9/22	-	-	-	-
1958	77	4/12	70	10/17	81	5/14	80	10/3	92	6/5	96	9/7	102	7/26	102	7/26
1959	73	4/9	71	10/23	82	5/12	82	9/10	90	7/17	95	7/31	-	-	-	-
1960	73	3/19	71	10/18	81	6/1	86	9/29	94	7/5	94	8/9	100	8/8	100	8/8
1961	71	4/28	73	10/18	80	5/17	80	10/14	91	5/19	92	8/21	104	7/11	102	7/12
1962	75	4/12	70	10/29	80	4/18	82	9/24	91	7/22	93	9/17	-	-	-	-
1963	70	4/28	70	10/16	84	5/17	85	9/27	91	5/20	93	8/8	-	-	-	-
1964	71	5/19	74	10/22	84	5/30	80	10/5	90	8/10	94	10/24	-	-	-	-
1965	70	3/6	73	10/26	80	4/26	82	10/2	93	6/30	90	8/31	107	7/30	102	7/31
1966	74	3/25	70	10/10	82	5/3	81	10/4	95	6/15	91	9/4	-	-	-	-
1967	71	5/5	71	10/17	85	5/16	82	9/28	90	6/18	94	9/27	102	8/9	102	8/28
1968	70	2/28	72	10/3	81	4/28	81	9/8	93	6/25	92	9/5	-	-	-	-
1969	71	3/25	70	11/1	87	5/7	87	9/11	94	6/16	90	9/10	-	-	-	-
1970	70	5/1	71	10/16	82	5/3	85	9/28	94	6/1	90	10/2	102	7/15	102	7/15
1971	73	4/4	78	10/9	82	5/7	82	10/8	91	5/11	90	8/12	100	8/8	100	8/11
1972	72	3/16	71	10/17	83	5/12	83	9/15	92	5/28	93	9/3	102	8/6	104	8/7
1973	70	4/3	70	10/17	87	5/12	82	9/28	92	5/13	95	9/10	-	-	-	-
1974	70	3/26	73	10/24	83	6/1	81	10/1	90	6/29	96	9/24	-	-	-	-

FIRST AND LAST HIGHS

Year	70 Degrees				80 Degrees				90 Degrees				100 Degrees			
	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date	First Date	Last Date		
1975	70	4/11	73	11/3	83	5/9	86	10/1	90	6/1	92	9/12	-	-	-	-
1976	71	4/4	70	10/19	82	4/30	82	10/7	92	7/15	92	7/15	-	-	-	-
1977	70	4/4	71	10/15	86	6/5	82	9/13	93	7/24	90	8/17	100	8/10	105	8/17
1978	71	3/17	71	10/19	81	5/19	80	9/1	90	6/4	94	8/9	101	8/7	101	8/8
1979	71	3/13	76	10/11	83	4/26	80	10/10	90	6/1	92	9/14	104	7/16	102	7/17
1980	70	4/11	74	10/10	81	4/27	81	10/6	90	7/21	90	10/5	101	7/21	101	7/21
1981	72	4/14	70	10/18	82	5/28	87	9/16	90	7/2	96	9/15	103	8/7	107	8/10
1982	73	3/23	74	10/14	85	5/24	84	9/23	90	6/10	91	9/2	100	6/18	100	6/18
1983	72	4/15	70	10/7	84	5/22	80	9/13	90	5/28	91	8/13	100	5/28	100	5/28
1984	79	4/14	72	10/9	86	5/28	82	10/7	91	7/15	91	8/26	100	7/24	100	7/24
1985	70	4/1	76	10/5	80	5/15	82	9/25	91	6/17	90	8/26	101	7/19	101	7/19
1986	70	3/20	72	10/24	80	5/24	86	9/6	91	5/30	91	9/5	100	8/26	100	8/26
1987	70	3/30	74	10/26	83	4/26	81	10/11	91	5/6	92	10/1	101	8/8	102	8/31
1988	71	2/28	70	10/16	80	4/12	80	10/1	91	7/18	91	10/1	100	7/25	105	9/2
1989	73	4/6	73	10/17	80	4/13	89	9/28	93	6/24	92	9/22	-	-	-	-
1990	71	3/27	72	10/4	82	4/15	83	9/28	93	6/21	93	9/22	100	8/5	101	8/11
1991	71	3/30	73	10/20	82	6/9	80	10/15	95	7/2	94	9/25	100	7/23	100	7/23
1992	70	3/29	73	10/23	80	4/25	82	9/30	93	5/24	91	8/26	100	6/22	101	8/11
1993	70	4/20	71	10/29	85	5/10	83	10/3	93	8/3	91	9/9	-	-	-	-
1994	70	3/12	70	10/24	80	5/5	87	9/27	90	7/7	93	9/22	102	7/19	101	7/21
1995	71	3/29	74	10/15	83	5/14	80	9/24	90	6/29	92	9/14	-	-	-	-
<b>EARLIEST OCCURRENCE IN THE YEAR OF HIGH TEMPERATURE OF AT LEAST...</b>																
	70 Deg	2/28/1988		80 Deg	3/16/1947		90 Deg	4/20/1906		100 Deg	5/28/1983					
<b>LATEST OCCURRENCE IN THE YEAR OF HIGH TEMPERATURE OF AT LEAST...</b>																
	70 Deg	11/3/1927		80 Deg	10/28/1924		90 Deg	10/5/1980		100 Deg	9/5/1944					

**MONTHLY AND SEASONAL COOLING DEGREE DAY UNITS  
(1969-95)**

Season	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1969	0	0	0	0	13	102	74	65	43	0	0	0	297
1970	0	0	0	0	8	106	150	120	8	2	0	0	394
1971	0	0	0	0	5	14	170	217	7	3	0	0	416
1972	0	0	0	0	27	39	200	221	44	0	0	0	531
1973	0	0	0	0	34	65	178	81	45	0	0	0	403
1974	0	0	0	0	1	60	102	144	102	0	0	0	409
1975	0	0	0	0	12	39	157	57	75	2	0	0	342
1976	0	0	0	0	4	23	89	66	30	4	0	0	216
1977	0	0	0	0	0	42	90	233	10	0	0	0	343
1978	0	0	0	0	3	69	141	112	18	0	0	0	343
1979	0	0	0	0	18	65	183	124	65	7	0	0	462
1980	0	0	0	1	0	2	141	75	35	12	0	0	266
1981	0	0	0	3	4	16	109	232	82	0	0	0	446
1982	0	0	0	0	4	107	103	127	50	0	0	0	391
1983	0	0	0	0	48	23	80	137	12	0	0	0	300
1984	0	0	0	0	10	34	140	144	47	6	0	0	381
1985	0	0	0	0	11	53	291	145	5	0	0	0	505
1986	0	0	0	0	40	87	52	235	50	0	0	0	464
1987	0	0	0	4	37	102	95	177	77	12	0	0	504
1988	0	0	0	0	10	39	147	115	67	8	0	0	386
1989	0	0	0	0	9	62	53	66	60	0	0	0	250
1990	0	0	0	2	3	45	206	193	83	0	0	0	532
1991	0	0	0	0	0	7	164	176	102	2	0	0	451
1992	0	0	0	1	57	114	174	164	31	0	0	0	541
1993	0	0	0	0	21	24	22	132	80	3	0	0	282
1994	0	0	0	0	15	31	210	168	109	0	0	0	533
1995	0	0	0	0	23	63	104	92	91	0	0	0	373
1961-90	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
NORMAL	0	0	0	0	0	46	127	147	51	0	0	0	371
MOST	0	0	0	4	57	114	291	235	109	12	0	0	541
YEAR*	-	-	-	1987	1992	1992	1985	1986	1994	1987	-	-	1992

**HOW TO CALCULATE COOLING DEGREE DAYS:**

Subtract 65 from the mean daily temperature. The difference is the number of cooling degree day units. All negative values are recorded as 0. Monthly and annual values are sums of the daily values during the appropriate period.

For example: Mean Temperature on July 4 was 69 deg F.  
According to the formula,  $69 - 65 = 4$ ,  
so there were 4 Cooling Degree Day units on July 4.

\* Most recent occurrence listed. In the case of a month with value of 0, no year is listed.

**MONTHLY AND SEASONAL HEATING DEGREE DAY UNITS  
(1941-95)**

Season	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
1940-41	-	-	-	-	-	-	735	529	402	328	245	102	2341
1941-42	5	28	144	319	502	689	921	627	569	370	282	154	4610
1942-43	9	18	71	289	599	683	985	601	606	328	290	160	4639
1943-44	26	34	156	321	568	776	800	659	608	424	208	125	4705
1944-45	21	28	80	201	591	796	699	575	613	434	202	131	4371
1945-46	21	15	138	332	554	780	749	628	570	404	167	124	4482
1946-47	28	18	116	442	656	716	862	557	470	329	141	103	4438
1947-48	15	35	83	299	541	684	787	701	630	484	283	49	4591
1948-49	32	17	143	356	634	832	1154	726	593	381	191	114	5173
1949-50	48	30	99	511	452	731	1172	727	611	487	319	115	5180
1950-51	20	17	120	382	548	571	776	612	709	337	253	64	4410
1951-52	18	43	90	343	570	845	901	667	600	371	230	144	4822
1952-53	18	15	66	197	725	718	539	586	586	445	326	186	4407
1953-54	32	41	91	323	485	653	797	624	649	456	254	205	4610
1954-55	63	57	142	365	452	741	777	681	724	552	368	152	5074
1955-56	80	33	173	346	701	793	770	838	639	364	201	174	5112
1956-57	22	47	120	407	662	746	1041	648	578	390	190	95	4946
1957-58	25	35	45	370	624	644	656	451	599	420	128	62	4059
1958-59	3	5	105	295	579	657	755	618	559	375	280	89	4320
1959-60	26	32	142	326	659	781	910	653	612	424	337	78	4980
1960-61	18	52	114	316	548	807	654	494	530	442	261	66	4302
1961-62	11	4	169	359	656	740	811	613	605	364	339	118	4789
1962-63	49	19	71	299	515	687	925	477	606	486	272	168	4574
1963-64	72	24	41	329	561	830	739	718	650	539	380	182	5065
1964-65	67	81	191	358	711	860	761	599	533	388	325	113	4987
1965-66	22	16	139	227	451	786	759	620	545	425	249	99	4338
1966-67	27	16	56	345	531	635	655	591	647	535	246	50	4334
1967-68	3	0	29	306	558	758	789	482	515	500	261	110	4311
1968-69	17	43	123	395	544	852	1022	703	570	442	178	51	4940
1969-70	17	22	85	357	526	678	751	526	553	493	246	71	4325
1970-71	14	14	130	369	530	771	757	615	653	454	253	149	4709
1971-72	33	5	123	388	578	756	793	607	466	501	174	61	4485
1972-73	10	6	153	363	497	848	799	560	525	378	202	89	4430
1973-74	6	47	59	326	618	624	832	610	545	403	282	72	4424
1974-75	32	16	29	301	500	640	722	660	615	523	240	127	4405
1975-76	24	41	48	354	565	686	698	658	632	437	258	155	4556
1976-77	15	41	47	319	536	783	901	564	596	358	340	68	4568
1977-78	40	19	131	339	644	707	764	561	485	430	317	58	4495
1978-79	29	26	134	312	772	915	1058	615	434	351	162	57	4865
1979-80	8	2	19	214	592	631	920	647	575	329	232	125	4294
1980-81	15	25	64	284	485	644	650	583	494	372	229	108	3953
1981-82	23	5	76	355	487	687	780	596	502	472	229	71	4274
1982-83	22	10	99	307	614	715	635	492	435	363	184	81	3957

SEASON	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
1983-84	27	2	109	325	463	880	701	546	425	430	269	115	4292
1984-85	9	2	80	377	539	820	893	664	588	327	213	62	4574
1985-86	0	7	124	373	826	982	691	591	417	437	265	43	4756
1986-87	37	0	148	242	510	750	780	550	495	321	173	51	4057
1987-88	22	2	54	214	479	798	801	581	544	380	272	109	4256
1988-89	33	15	91	208	518	705	699	805	594	263	219	77	4227
1989-90	32	27	44	306	486	759	664	641	476	308	251	78	4072
1990-91	10	5	14	336	492	933	802	446	575	420	310	156	4499
1991-92	4	13	25	295	517	685	627	483	387	282	108	35	3461
1992-93	5	9	107	274	556	789	877	692	522	366	135	94	4426
1993-94	37	17	57	231	698	726	630	668	451	316	143	85	4059
1994-95	16	0	23	330	662	696	666	514	510	485	149	95	4146
1995-96	3	15	20	318	391	693	—	—	—	—	—	—	—
1961-90	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
NORMAL	28	35	102	326	567	769	787	599	549	420	249	91	4522
Years marked with an * are 19xx													
LEAST YEAR#	0 '85	0 '86	20 '95	197 1952	391 1995	571 1950	539 1953	446 1991	387 1992	263 1989	108 '92	35 '92	3461 '91-92
MAX YEAR*	80 '55	81 '64	191 '64	511 1949	826 1985	982 1985	1172 1950	838 1956	724 1955	552 1955	380 '64	205 '54	5180 '49-50

**HOW TO CALCULATE HEATING DEGREE DAYS:**

Subtract the mean daily temperature from 65. The difference is the number of heating degree day units. All negative values are recorded as 0. Monthly and annual values are sums of the daily values during the appropriate period.

For example: Mean Temperature on Oct 4 was 45 deg F.  
According to the formula,  $65 - 45 = 20$ ,  
so there were 20 Heating Degree Day units on Oct 4.

Utility companies use cooling and heating degree days for determining energy consumption requirements.

# Most recent occurrence listed.

## FREEZE DATA

## Latest Killing in Spring, Earliest Killing in Autumn and Growing Season

Year	Latest Date in Spring		Earliest Date in Autumn		Growing Season (Days)	Year	Latest Date in Spring		Earliest Date in Autumn		Growing Season (Days)
	Temp.	Date	Temp.	Date			Temp.	Date	Temp.	Date	
1875	28	4/7	30	11/16	221	1922	32	3/27	28	11/27	245
1876	32	2/27	32	12/5	282	1923	32	3/15	32	11/18	248
1877	31	3/4	31	10/31	240	1924	32	4/15	30	11/12	211
1878	32	4/14	32	11/11	211	1925	32	3/6	29	11/23	262
1879	25	2/5	32	11/1	269	1926	31	1/25	29	12/12	321
1880	32	3/21	26	11/18	242	1927	32	2/14	29	12/7	296
1881	32	2/18	32	10/13	223	1928	32	3/14	31	11/18	249
1882	32	4/27	29	11/10	197	1929	30	2/18	31	11/13	268
1883	31	2/24	31	12/30	309	1930	31	2/28	30	11/24	269
1884	28	3/8	32	12/6	235	1931	32	2/22	32	11/21	272
1885	32	2/23	29	12/11	291	1932	31	3/3	32	12/6	278
1886	32	3/18	30	11/2	229	1933	31	2/14	NONE	NONE	320
1887	31	4/3	30	11/16	235	1934	NONE	NONE	NONE	NONE	365
1888	32	4/9	31	11/24	227	1935	32	3/9	29	10/30	235
1889	30	2/25	32	11/16	264	1936	32	4/4	30	11/2	212
1890	32	4/14	32	11/6	208	1937	32	2/10	32	12/6	299
1891	31	3/31	31	12/6	250	1938	31	2/1	32	11/12	284
1892	30	2/16	32	12/7	295	1939	32	3/10	29	12/24	288
1893	32	4/17	28	11/1	198	1940	32	2/12	32	11/19	281
1894	30	3/20	32	12/1	256	1941	30	3/14	29	11/20	250
1895	32	4/4	31	10/31	209	1942	32	3/24	29	11/12	233
1896	29	3/31	32	11/6	220	1943	31	3/18	32	11/23	269
1897	32	3/30	32	11/19	234	1944	32	3/29	31	11/14	229
1898	32	4/3	32	11/7	218	1945	31	4/2	32	11/19	230
1899	31	4/13	32	12/19	240	1946	32	4/7	30	10/16	191
1900	31	2/18	27	11/19	274	1947	31	3/6	32	11/21	259
1901	29	2/21	26	12/12	294	1948	32	4/27	32	10/27	182
1902	30	3/28	31	11/23	240	1949	32	4/3	31	10/18	200
1903	32	3/14	31	11/24	250	1950	32	4/24	32	11/10	199
1904	32	4/23	29	12/5	226	1951	29	4/21	31	10/30	191
1905	32	3/30	32	10/18	202	1952	32	4/8	32	11/8	213
1906	32	3/18	31	11/22	249	1953	32	4/2	31	11/2	213
1907	32	3/12	30	11/24	257	1954	29	5/1	32	10/27	179
1908	30	3/9	32	11/27	263	1955	32	4/25	26	11/11	199
1909	29	1/28	32	11/14	290	1956	30	4/6	25	11/19	226
1910	29	2/23	31	12/20	300	1957	32	4/7	27	11/4	211
1911	31	3/2	28	11/10	229	1958	28	3/16	30	10/24	221
1912	32	3/9	31	11/28	264	1959	32	3/20	31	10/29	222
1913	29	3/25	32	12/4	254	1960	30	3/19	32	11/7	232
1914	32	2/9	31	12/11	304	1961	30	3/28	32	10/20	205
1915	30	2/15	32	11/27	317	1962	28	3/28	28	11/28	243
1916	32	3/4	32	11/11	253	1963	31	3/17	30	10/26	222
1917	32	3/16	NONE	NONE	226	1964	32	5/2	32	10/23	203
1918	32	4/3	30	12/17	264	1965	32	4/6	32	11/29	236
1919	32	1/28	30	10/27	272	1966	32	4/19	32	12/25	249
1920	32	3/17	NONE	NONE	229	1967	31	4/15	32	11/6	204
1921	32	4/4	29	11/20	276	1968	32	4/22	31	11/1	192

FREEZEDATA

Year	Latest Date in Spring		Earliest Date in Autumn		Growing Season (Days)	Year	Latest Date in Spring		Earliest Date in Autumn		Growing Season (Days)
	Temp.	Date	Temp.	Date			Temp.	Date	Temp.	Date	
1969	29	3/24	31	10/14	203	1983	30	2/5	29	11/29	296
1970	30	4/12	32	10/26	196	1984	32	3/4	31	11/21	261
1971	32	4/3	32	10/27	206	1985	29	3/15	32	10/8	206
1972	30	4/22	30	10/29	220	1986	29	2/19	32	11/10	263
1973	29	2/20	29	11/2	254	1987	32	3/28	29	11/28	241
1974	30	3/18	31	11/28	254	1988	32	4/8	31	11/30	235
1975	31	4/5	30	11/17	222	1989	31	3/20	32	10/29	222
1976	31	4/2	32	11/20	231	1990	29	3/13	32	11/18	250
1977	31	4/17	32	11/3	199	1991	32	3/20	27	10/30	224
1978	28	3/15	32	10/26	214	1992	31	3/28	31	11/28	245
1979	32	2/21	31	11/11	262	1993	31	3/11	32	10/5	208
1980	31	4/2	30	12/6	247	1994	31	3/7	32	11/3	231
1981	31	4/13	30	11/27	227	1995	31	3/26	32	10/30	216
1982	31	4/19	32	11/2	196						

FREEZEDATES

Average Last Freeze.....March 30  
 Latest Date in Spring.....May 2, 1964

Average First Freeze.....November 8  
 Earliest Date in Autumn.....October 8, 1985

AVERAGE GROWING SEASON.....223 Days  
 (based on 1961-1990 data)

LONGEST GROWING SEASON  
 1934 with 365 days (no killing spring or autumn freeze)

SHORTEST GROWING SEASON  
 1954 with 179 days.

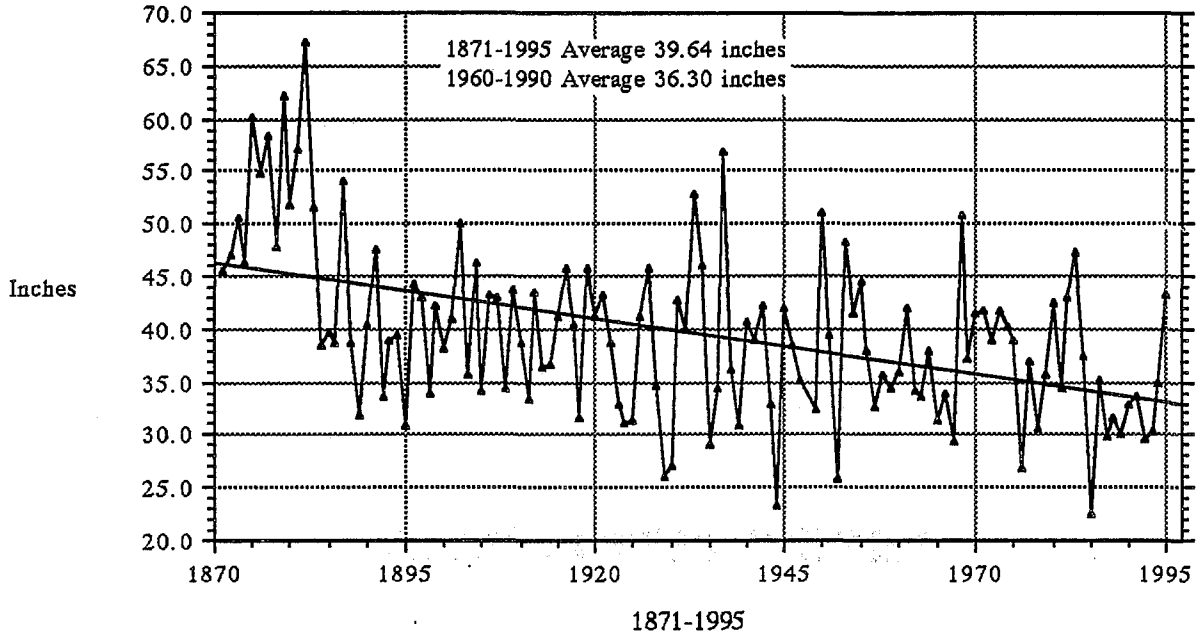
This page left intentionally blank.



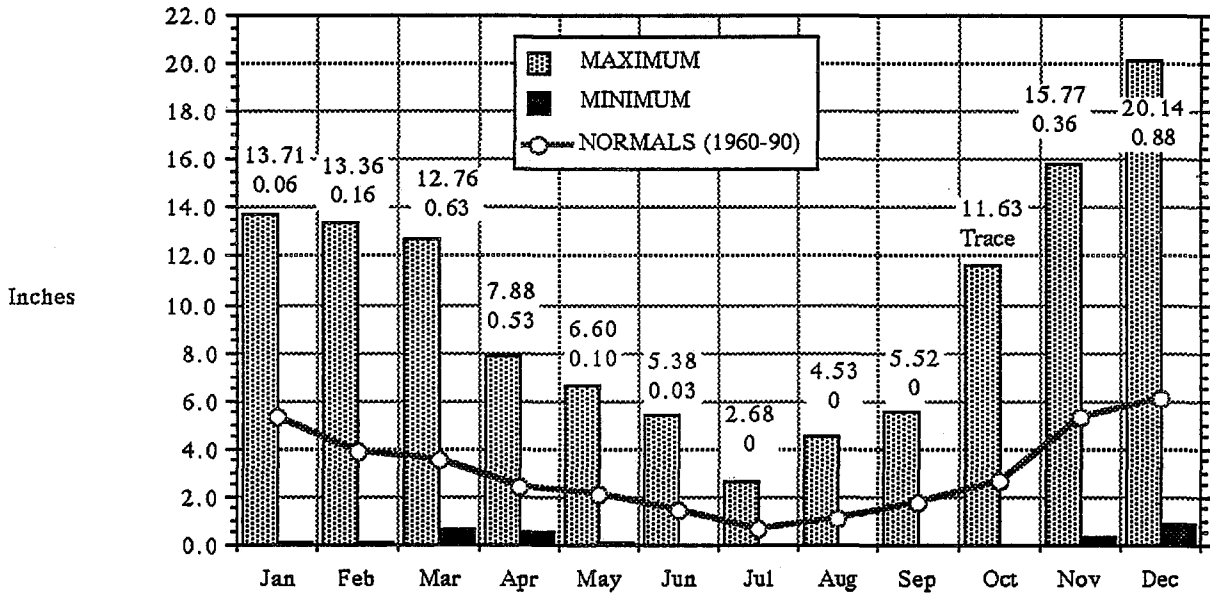
## **PRECIPITATION DATA**

# ANNUAL AND MONTHLY PRECIPITATION

## ANNUAL PRECIPITATION



## PRECIPITATION EXTREMES (1871-1995)



**JANUARY PRECIPITATION DATA  
(1871-1995)**

**FEBRUARY PRECIPITATION DATA  
(1871-1995)**

Day	NORMALS (1961-90)				GREATEST DAILY			
	Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995	
1	.19	.19	.19	14.33	1.03	1987	2.11	1933
2	.19	.38	.38	14.52	1.19	1951	1.64	1895
3	.19	.57	.57	14.71	1.32	1966	2.84	1907
4	.19	.76	.76	14.90	1.93	1956	1.93	1956
5	.18	.94	.94	15.08	.95	1966	1.68	1883
6	.18	1.12	1.12	15.26	2.48	1948	5.55	1883
7	.18	1.30	1.30	15.44	1.47	1953	1.47	1953
8	.18	1.48	1.48	15.62	1.46	1953	1.46	1953
9	.18	1.66	1.66	15.80	1.14	1980	1.14	1980
10	.18	1.84	1.84	15.98	1.35	1979	2.04	1881
11	.18	2.02	2.02	16.16	1.01	1972	1.63	1881
12	.18	2.20	2.20	16.34	1.38	1975	1.41	1936
13	.18	2.38	2.38	16.52	1.28	1980	1.28	1980
14	.18	2.56	2.56	16.70	1.50	1974	1.72	1901
15	.17	2.73	2.73	16.87	1.98	1974	1.98	1974
16	.17	2.90	2.90	17.04	1.13	1982	1.42	1919
17	.17	3.07	3.07	17.21	.93	1964	1.66	1911
18	.17	3.24	3.24	17.38	1.06	1974	4.50	1911
19	.17	3.41	3.41	17.55	1.27	1968	1.98	1950
20	.17	3.58	3.58	17.72	1.73	1972	1.73	1972
21	.17	3.75	3.75	17.89	1.10	1943	1.52	1919
22	.17	3.92	3.92	18.06	2.03	1970	2.03	1970
23	.16	4.08	4.08	18.22	1.48	1965	2.65	1887
24	.16	4.24	4.24	18.38	1.20	1964	1.73	1889
25	.16	4.40	4.40	18.54	1.54	1964	3.00	1920
26	.16	4.56	4.56	18.70	1.05	1956	1.15	1933
27	.16	4.72	4.72	18.86	1.56	1954	1.56	1954
28	.16	4.88	4.88	19.02	1.20	1990	1.79	1890
29	.16	5.04	5.04	19.18	.67	1958	1.99	1890
30	.16	5.20	5.20	19.34	.73	1995	.94	1907
31	.15	5.35	5.35	19.49	2.33	1987	2.33	1987
	NORMAL MONTHLY TOTALS				JAN. GREATEST DAILY			
	5.35	5.35	5.35	19.49	2.48	1948	5.55	1883

Day	NORMALS (1961-90)				GREATEST DAILY			
	Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995	
1	.15	.15	.15	19.64	1.15	1961	2.25	1881
2	.15	.30	.30	19.79	1.13	1968	3.81	1890
3	.15	.45	.45	19.94	.68	1952	1.46	1890
4	.15	.60	.60	20.09	.82	1942	1.20	1907
5	.15	.75	.75	20.24	1.54	1946	2.11	1940
6	.15	.90	.90	20.39	1.61	1943	1.61	1943
7	.14	1.04	1.04	20.53	1.14	1945	1.14	1945
8	.14	1.18	1.18	20.67	.76	1969	1.80	1919
9	.14	1.32	1.32	20.81	1.51	1949	1.51	1949
10	.14	1.46	1.46	20.95	1.72	1961	1.72	1961
11	.14	1.60	1.60	21.09	.78	1954	2.74	1879
12	.14	1.74	1.74	21.23	1.21	1954	1.21	1954
13	.14	1.88	1.88	21.37	.90	1959	1.08	1901
14	.14	2.02	2.02	21.51	.76	1947	1.24	1939
15	.14	2.16	2.16	21.65	1.11	1970	1.83	1901
16	.13	2.29	2.29	21.78	1.42	1970	1.42	1970
17	.13	2.42	2.42	21.91	1.78	1949	1.78	1949
18	.13	2.55	2.55	22.04	1.38	1968	1.38	1968
19	.13	2.68	2.68	22.17	1.27	1968	1.70	1884
20	.13	2.81	2.81	22.30	1.71	1982	1.71	1982
21	.13	2.94	2.94	22.43	.77	1949	1.66	1879
22	.13	3.07	3.07	22.56	1.09	1957	1.09	1957
23	.13	3.20	3.20	22.69	1.07	1950	1.07	1950
24	.13	3.33	3.33	22.82	1.89	1994	1.89	1994
25	.13	3.46	3.46	22.95	1.30	1957	1.53	1882
26	.13	3.59	3.59	23.08	.57	1946	.91	1904
27	.13	3.72	3.72	23.21	1.32	1976	2.06	1882
28	.13	3.85	3.85	23.34	.68	1955	1.71	1882
29	#	#	#	#	.25	1952	.62	1880
	NORMAL MONTHLY TOTALS				FEB. GREATEST DAILY			
	3.85	3.85	3.85	23.34	1.89	1994	3.81	1890

\* The Water Year begins on October 1st and ends September 30th.

**MARCH PRECIPITATION DATA  
(1871-1995)**

**APRIL PRECIPITATION DATA  
(1871-1995)**

Day	NORMALS (1961-90)				GREATEST DAILY				Day	NORMALS (1961-90)				GREATEST DAILY			
	Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995			Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995	
					Amt	Year	Amt	Year						Max	Year	Max	Year
1	.13	.13	9.33	23.47	.78	1972	.98	1940	1	.10	.10	12.86	27.00	.35	1941	1.36	1875
2	.13	.26	9.46	23.60	.53	1991	1.37	1916	2	.09	.19	12.95	27.09	.80	1988	1.34	1883
3	.13	.39	9.59	23.73	1.26	1987	1.26	1987	3	.09	.28	13.04	27.18	.68	1993	.81	1919
4	.13	.52	9.72	23.86	.54	1991	1.14	1902	4	.09	.37	13.13	27.27	.78	1991	.78	1991
5	.12	.64	9.84	23.98	.92	1989	1.33	1887	5	.09	.46	13.22	27.36	.74	1991	1.02	1907
6	.12	.76	9.96	24.10	.89	1970	1.12	1876	6	.09	.55	13.31	27.45	.49	1980	.61	1927
7	.12	.88	10.08	24.22	1.00	1957	1.16	1900	7	.09	.64	13.40	27.54	1.20	1984	1.20	1984
8	.12	1.00	10.20	24.34	.97	1954	1.18	1877	8	.09	.73	13.49	27.63	.69	1971	.69	1971
9	.12	1.12	10.32	24.46	1.27	1983	1.27	1983	9	.09	.82	13.58	27.72	1.17	1971	1.17	1971
10	.12	1.24	10.44	24.58	.53	1947	1.35	1879	10	.08	.90	13.66	27.80	.42	1982	.65	1911
11	.12	1.36	10.56	24.70	.82	1971	1.37	1903	11	.08	.98	13.74	27.88	.57	1982	.91	1883
12	.12	1.48	10.68	24.82	.84	1989	1.18	1877	12	.08	1.06	13.82	27.96	1.23	1955	1.83	1937
13	.12	1.60	10.80	24.94	1.02	1961	1.35	1877	13	.08	1.14	13.90	28.04	.75	1982	.81	1884
14	.12	1.72	10.92	25.06	.83	1967	.91	1908	14	.08	1.22	13.98	28.12	.68	1960	1.06	1937
15	.12	1.84	11.04	25.18	.88	1946	1.40	1908	15	.08	1.30	14.06	28.20	.45	1958	.82	1883
16	.12	1.96	11.16	25.30	.97	1992	1.73	1921	16	.08	1.38	14.14	28.28	.71	1992	1.11	1886
17	.11	2.08	11.28	25.42	.58	1949	1.13	1931	17	.08	1.46	14.22	28.36	.55	1987	1.71	1908
18	.11	2.19	11.39	25.53	.67	1975	1.08	1938	18	.08	1.54	14.30	28.44	.55	1970	.94	1883
19	.11	2.30	11.50	25.64	.39	1973	.80	1916	19	.08	1.62	14.38	28.52	1.01	1965	1.01	1965
20	.11	2.41	11.61	25.75	.53	1964	.78	1905	20	.07	1.69	14.45	28.59	.59	1958	.62	1916
21	.11	2.52	11.72	25.86	1.36	1948	1.36	1948	21	.07	1.76	14.52	28.66	1.25	1988	1.25	1988
22	.11	2.63	11.83	25.97	.96	1993	.97	1886	22	.07	1.83	14.59	28.73	.95	1961	.95	1961
23	.11	2.74	11.94	26.08	.62	1986	.90	1917	23	.07	1.90	14.66	28.80	.67	1960	.82	1891
24	.11	2.85	12.05	26.19	.83	1948	1.27	1879	24	.07	1.97	14.73	28.87	.54	1970	1.05	1892
25	.11	2.96	12.16	26.30	1.23	1962	2.39	1916	25	.07	2.04	14.80	28.94	1.00	1989	1.00	1989
26	.10	3.06	12.26	26.40	.57	1985	2.25	1883	26	.07	2.11	14.87	29.01	.45	1978	1.17	1881
27	.10	3.16	12.36	26.50	.82	1974	1.54	1934	27	.07	2.18	14.94	29.08	1.03	1962	1.03	1962
28	.10	3.26	12.46	26.60	1.25	1943	1.65	1883	28	.07	2.25	15.01	29.15	.60	1969	1.21	1929
29	.10	3.36	12.56	26.70	1.54	1983	1.54	1983	29	.07	2.32	15.08	29.22	.62	1992	.62	1992
30	.10	3.46	12.66	26.80	.78	1943	1.32	1931	30	.07	2.39	15.15	29.29	.58	1952	1.10	1940
31	.10	3.56	12.76	26.90	1.47	1943	2.06	1931									
NORMAL MONTHLY TOTALS				MAR. GREATEST DAILY				NORMAL MONTHLY TOTALS				APRIL GREATEST DAILY					
3.56				1.54 1983 2.39 1916				2.39 2.39 15.15 29.29				1.25 1988 1.83 1937					

\* The Water Year begins on October 1st and ends September 30th.

**MAY PRECIPITATION DATA  
(1871-1995)**

**JUNE PRECIPITATION DATA  
(1871-1995)**

Day	NORMALS (1961-90)				GREATEST DAILY				Day	NORMALS (1961-90)				GREATEST DAILY			
	Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995			Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995	
					Amt	Year	Amt	Year						Max	Year	Max	Year
1	.07	.07	15.22	29.36	1.15	1949	1.15	1949	1	.06	.06	17.27	31.41	.97	1968	.97	1968
2	.07	.14	15.29	29.43	.71	1975	.99	1889	2	.06	.12	17.33	31.47	.46	1962	.46	1962
3	.07	.21	15.36	29.50	.66	1948	.66	1948	3	.06	.18	17.39	31.53	.55	1977	.85	1894
4	.07	.28	15.43	29.57	.74	1979	1.29	1887	4	.06	.24	17.45	31.59	.79	1984	.79	1984
5	.07	.35	15.50	29.64	1.07	1948	1.07	1948	5	.06	.30	17.51	31.65	.46	1942	.51	1929
6	.07	.42	15.57	29.71	.80	1963	.88	1887	6	.06	.36	17.57	31.71	1.70	1958	1.70	1958
7	.07	.49	15.64	29.78	.81	1991	.91	1885	7	.06	.42	17.63	31.77	1.02	1981	2.03	1927
8	.07	.56	15.71	29.85	.51	1970	.55	1933	8	.06	.48	17.69	31.83	.59	1981	1.92	1933
9	.07	.63	15.78	29.92	.45	1956	.80	1892	9	.06	.54	17.75	31.89	.72	1950	.74	1888
10	.07	.70	15.85	29.99	.40	1977	.66	1907	10	.06	.60	17.81	31.95	.66	1948	.66	1948
11	.07	.77	15.92	30.06	.29	1987	.51	1899	11	.05	.65	17.86	32.00	.47	1952	.89	1910
12	.07	.84	15.99	30.13	.49	1988	.52	1880	12	.05	.70	17.91	32.05	.50	1982	.54	1891
13	.07	.91	16.06	30.20	1.08	1978	1.08	1978	13	.05	.75	17.96	32.10	.89	1980	.89	1980
14	.07	.98	16.13	30.27	.70	1959	.70	1959	14	.05	.80	18.01	32.15	.55	1978	.88	1888
15	.07	1.05	16.20	30.34	.59	1942	1.65	1908	15	.05	.85	18.06	32.20	.56	1954	1.03	1906
16	.07	1.12	16.27	30.41	1.34	1945	1.34	1945	16	.05	.90	18.11	32.25	.49	1973	.68	1875
17	.07	1.19	16.34	30.48	1.20	1991	1.20	1991	17	.05	.95	18.16	32.30	.58	1943	.58	1943
18	.07	1.26	16.41	30.55	.53	1981	.53	1981	18	.05	1.00	18.21	32.35	.22	1995	.54	1995
19	.07	1.33	16.48	30.62	1.47	1968	1.47	1968	19	.05	1.05	18.26	32.40	.43	1991	.85	1913
20	.07	1.40	16.55	30.69	.55	1961	.75	1879	20	.05	1.10	18.31	32.45	1.46	1984	1.46	1984
21	.06	1.46	16.61	30.75	.42	1972	.51	1898	21	.04	1.14	18.35	32.49	.44	1967	.59	1931
22	.06	1.52	16.67	30.81	.78	1984	.89	1905	22	.04	1.18	18.39	32.53	.47	1993	.82	1913
23	.06	1.58	16.73	30.87	.58	1945	.58	1945	23	.04	1.22	18.43	32.57	.87	1969	.87	1969
24	.06	1.64	16.79	30.93	.64	1973	1.01	1911	24	.04	1.26	18.47	32.61	.82	1971	.93	1876
25	.06	1.70	16.85	30.99	.63	1989	.72	1900	25	.04	1.30	18.51	32.65	.29	1973	.39	1915
26	.06	1.76	16.91	31.05	.93	1953	.93	1953	26	.04	1.34	18.55	32.69	.58	1969	.62	1912
27	.06	1.82	16.97	31.11	.59	1990	.59	1990	27	.04	1.38	18.59	32.73	.37	1955	.75	1903
28	.06	1.88	17.03	31.17	.80	1985	.80	1985	28	.04	1.42	18.63	32.77	.63	1955	.76	1877
29	.06	1.94	17.09	31.23	.53	1954	.53	1954	29	.03	1.45	18.66	32.80	.37	1984	.40	1992
30	.06	2.00	17.15	31.29	.58	1943	.58	1943	30	.03	1.48	18.69	32.83	.81	1954	.81	1954
31	.06	2.06	17.21	31.35	1.08	1993	1.08	1993									
	NORMAL MONTHLY TOTALS				MAY GREATEST DAILY					NORMAL MONTHLY TOTALS				JUNE GREATEST DAILY			
	2.06	2.06	17.21	31.35	1.47	1968	1.47	1968		1.48	1.48	18.69	32.83	1.70	1958	2.03	1927

\* The Water Year begins on October 1st and ends September 30th.

**JULY PRECIPITATION DATA  
(1871-1995)**

**AUGUST PRECIPITATION DATA  
(1871-1995)**

Day	NORMALS (1961-90)				GREATEST DAILY				Day	NORMALS (1961-90)				GREATEST DAILY			
	Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995			Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995	
					Amt	Year	Amt	Year						Max	Year	Max	Year
1	.03	.03	18.72	32.86	.28	1983	.40	1916	1	.02	.02	19.34	33.48	.39	1989	.63	1896
2	.03	.06	18.72	32.89	.81	1966	1.01	1902	2	.02	.04	19.36	33.50	.54	1956	.54	1956
3	.03	.09	18.78	32.92	.25	1986	.92	1927	3	.02	.06	19.38	33.52	.41	1962	.52	1877
4	.03	.12	18.81	32.95	.16	1992	.30	1900	4	.02	.08	19.40	33.54	.05	1943	.47	1933
5	.02	.14	18.83	32.97	.48	1992	.80	1923	5	.03	.11	19.43	33.57	.26	1943	.35	1874
6	.02	.16	18.85	32.99	.20	1963	.82	1923	6	.03	.14	19.46	33.60	.94	1976	.94	1976
7	.02	.18	18.87	33.01	.45	1976	.50	1923	7	.03	.17	19.49	33.63	.63	1976	.63	1976
8	.02	.20	18.89	33.03	.89	1946	.89	1946	8	.03	.20	19.52	33.66	.08	1985	1.25	1900
9	.02	.22	18.91	33.05	1.06	1995	1.06	1995	9	.03	.23	19.55	33.69	.41	1982	.50	1900
10	.02	.24	18.93	33.07	.63	1986	.63	1986	10	.03	.26	19.58	33.72	.36	1957	.46	1922
11	.02	.26	18.95	33.09	.32	1988	1.10	1879	11	.03	.29	19.61	33.75	.36	1982	.40	1922
12	.02	.28	18.97	33.11	.06	1988	.76	1920	12	.03	.32	19.64	33.78	.38	1978	.73	1908
13	.02	.30	18.99	33.13	.15	1957	.35	1915	13	.03	.35	19.67	33.81	.34	1987	.68	1881
14	.02	.32	19.01	33.15	.50	1942	.50	1942	14	.03	.38	19.70	33.84	.26	1948	.37	1881
15	.02	.34	19.03	33.17	.80	1978	.80	1978	15	.03	.41	19.73	33.87	.73	1976	.73	1976
16	.02	.36	19.05	33.19	.81	1989	.81	1989	16	.04	.45	19.77	33.91	.46	1972	.83	1912
17	.02	.38	19.07	33.21	.64	1993	.64	1993	17	.04	.49	19.81	33.95	.90	1948	.90	1948
18	.02	.40	19.09	33.23	.63	1987	.70	1884	18	.04	.53	19.85	33.99	.45	1968	.45	1968
19	.01	.41	19.10	33.24	.89	1983	.89	1983	19	.04	.57	19.89	34.03	1.20	1968	1.20	1968
20	.01	.42	19.11	33.25	.84	1954	.84	1954	20	.04	.61	19.93	34.07	.30	1978	.36	1926
21	.01	.43	19.12	33.26	.51	1945	.51	1945	21	.04	.65	19.97	34.11	.27	1971	.40	1879
22	.02	.45	19.14	33.28	.05	1963	.34	1898	22	.04	.69	20.01	34.15	.69	1975	.69	1975
23	.02	.47	19.16	33.30	.06	1959	.83	1918	23	.04	.73	20.05	34.19	1.20	1977	1.20	1977
24	.02	.49	19.18	33.32	.51	1949	.51	1949	24	.04	.77	20.09	34.23	.89	1973	.89	1973
25	.02	.51	19.20	33.34	.42	1983	.77	1909	25	.04	.81	20.13	34.27	1.47	1977	1.47	1977
26	.02	.53	19.22	33.36	.52	1947	.52	1947	26	.04	.85	20.17	34.31	.44	1953	.80	1899
27	.02	.55	19.24	33.38	.25	1947	.25	1947	27	.04	.89	20.21	34.35	.42	1975	.42	1975
28	.02	.57	19.26	33.40	.36	1993	.36	1993	28	.05	.94	20.26	34.40	.61	1983	.73	1880
29	.02	.59	19.28	33.42	.14	1993	.45	1881	29	.05	.99	20.31	34.45	1.13	1983	1.13	1983
30	.02	.61	19.30	33.44	.52	1982	.52	1982	30	.05	1.04	20.36	34.50	.64	1954	.71	1937
31	.02	.63	19.32	33.46	.38	1985	.38	1985	31	.05	1.09	20.41	34.55	.52	1961	.94	1939
NORMAL MONTHLY TOTALS					JULY GREATEST DAILY				NORMAL MONTHLY TOTALS					AUG. GREATEST DAILY			
0.63 0.63 19.32 33.46					1.06 1995 1.10 1879				1.09 1.09 20.41 34.55					1.47 1977 1.47 1977			

\* The Water Year begins on October 1st and ends September 30th.

**SEPTEMBER PRECIPITATION DATA  
(1871-1995)**

**OCTOBER PRECIPITATION DATA  
(1871-1995)**

Day	NORMALS (1961-90)				GREATEST DAILY				Day	NORMALS (1961-90)				GREATEST DAILY			
	Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995			Daily	Month To Date	Year To Date	Water Yr To Date*	1941-1995		1871-1995	
					Amt	Year	Amt	Year						Max	Year	Max	Year
1	.05	.05	20.46	34.60	1.48	1971	1.48	1971	1	.06	.06	22.22	.06	.73	1951	1.07	1883
2	.05	.10	20.51	34.65	.86	1979	.86	1979	2	.06	.12	22.28	.12	.79	1957	.79	1957
3	.05	.15	20.56	34.70	1.18	1945	1.18	1945	3	.06	.18	22.34	.18	.69	1967	1.11	1905
4	.05	.20	20.61	34.75	1.00	1959	1.68	1911	4	.06	.24	22.40	.24	1.00	1949	1.00	1949
5	.05	.25	20.66	34.80	.65	1984	1.24	1911	5	.06	.30	22.46	.30	.80	1950	.80	1950
6	.06	.31	20.72	34.86	.60	1973	.92	1927	6	.07	.37	22.53	.37	1.24	1981	1.24	1981
7	.06	.37	20.78	34.92	.26	1951	.67	1925	7	.07	.44	22.60	.44	.79	1962	1.78	1893
8	.06	.43	20.84	34.98	.27	1952	.49	1893	8	.07	.51	22.67	.51	.87	1955	.94	1889
9	.06	.49	20.90	35.04	.84	1972	.84	1972	9	.07	.58	22.74	.58	1.66	1955	1.66	1955
10	.06	.55	20.96	35.10	1.18	1985	1.18	1985	10	.07	.65	22.81	.65	1.65	1959	2.93	1882
11	.06	.61	21.02	35.16	.44	1966	.79	1882	11	.07	.72	22.88	.72	.82	1968	1.48	1884
12	.06	.67	21.08	35.22	.23	1985	.72	1905	12	.07	.79	22.95	.79	.82	1968	2.31	1882
13	.06	.73	21.14	35.28	.50	1955	.82	1920	13	.07	.86	23.02	.86	.34	1973	1.36	1908
14	.06	.79	21.20	35.34	.61	1946	.84	1935	14	.08	.94	23.10	.94	.51	1951	1.65	1908
15	.06	.85	21.26	35.40	.57	1955	.57	1955	15	.08	1.02	23.18	1.02	1.06	1947	1.37	1906
16	.06	.91	21.32	35.46	.22	1944	1.03	1926	16	.08	1.10	23.26	1.10	.79	1956	1.19	1918
17	.06	.97	21.38	35.52	2.23	1969	2.23	1969	17	.08	1.18	23.34	1.18	.77	1947	2.11	1876
18	.06	1.03	21.44	35.58	.53	1988	1.05	1921	18	.09	1.27	23.43	1.27	1.40	1979	1.57	1882
19	.06	1.09	21.50	35.64	.97	1988	.97	1988	19	.09	1.36	23.52	1.36	1.32	1947	1.32	1947
20	.06	1.15	21.56	35.70	1.56	1982	1.56	1982	20	.09	1.45	23.61	1.45	.99	1956	.99	1956
21	.06	1.21	21.62	35.76	.76	1972	1.77	1898	21	.09	1.54	23.70	1.54	1.10	1951	1.64	1876
22	.06	1.27	21.68	35.82	.73	1948	.94	1920	22	.10	1.64	23.80	1.64	1.31	1951	1.31	1951
23	.06	1.33	21.74	35.88	.86	1986	.97	1878	23	.10	1.74	23.90	1.74	.79	1951	.98	1934
24	.06	1.39	21.80	35.94	.74	1950	.74	1950	24	.10	1.84	24.00	1.84	1.31	1943	1.41	1891
25	.06	1.45	21.86	36.00	1.48	1986	1.48	1986	25	.11	1.95	24.11	1.95	1.10	1955	1.79	1922
26	.06	1.51	21.92	36.06	1.11	1948	1.14	1940	26	.11	2.06	24.22	2.06	2.33	1994	2.33	1994
27	.06	1.57	21.98	36.12	1.30	1955	1.30	1955	27	.11	2.17	24.33	2.17	2.44	1994	2.44	1994
28	.06	1.63	22.04	36.18	.78	1962	1.75	1927	28	.12	2.29	24.45	2.29	1.62	1982	1.62	1982
29	.06	1.69	22.10	36.24	.59	1951	.75	1889	29	.12	2.41	24.57	2.41	.99	1992	1.22	1933
30	.06	1.75	22.16	36.30	.77	1944	1.17	1887	30	.13	2.54	24.70	2.54	.59	1990	1.16	1875
									31	.13	2.67	24.83	2.67	2.44	1994	2.44	1994
NORMAL MONTHLY TOTALS				SEPT. GREATEST DAILY				NORMAL MONTHLY TOTALS				OCT. GREATEST DAILY					
1.75				2.23 1969				2.23 1969				2.67 2.67 24.83 2.67					
1.75				22.16				36.30				2.44 1994 2.93 1882					

\* The Water Year begins on October 1st and ends September 30th.

**NOVEMBER PRECIPITATION DATA  
(1871-1995)**

**DECEMBER PRECIPITATION DATA  
(1871-1995)**

Day	NORMALS (1961-90)				GREATEST DAILY				Day	NORMALS (1961-90)				GREATEST DAILY			
	Daily	Month	Year	Water Yr	1941-1995		1871-1995			Daily	To Date	To Date	To Date*	1941-1995		1871-1995	
		To Date	To Date	To Date*	Amt	Year	Amt	Year						Max	Year	Max	Year
1	.13	.13	24.96	2.80	1.31	1984	1.31	1984	1	.20	.20	30.37	8.21	1.69	1987	1.69	1987
2	.14	.27	25.10	2.94	1.33	1984	1.67	1902	2	.20	.40	30.57	8.41	2.08	1980	2.08	1980
3	.14	.14	25.24	3.08	1.88	1983	1.88	1983	3	.20	.60	30.77	8.61	1.69	1980	1.69	1980
4	.15	.56	25.39	3.23	1.87	1969	1.87	1969	4	.20	.80	30.97	8.81	1.56	1966	1.56	1966
5	.15	.71	25.54	3.38	.83	1988	1.62	1877	5	.20	1.00	31.17	9.01	1.80	1981	2.27	1933
6	.16	.87	25.70	3.54	1.31	1980	3.48	1903	6	.20	1.20	31.37	9.21	1.11	1952	2.43	1923
7	.16	1.03	25.86	3.70	.91	1980	3.10	1885	7	.20	1.40	31.57	9.41	.86	1985	.98	1935
8	.16	1.19	26.02	3.86	1.38	1968	2.05	1937	8	.20	1.60	31.77	9.61	.89	1971	2.12	1929
9	.17	1.36	26.19	4.03	1.40	1973	1.80	1928	9	.20	1.80	31.97	9.81	1.30	1987	2.25	1877
10	.17	1.53	26.36	4.20	1.30	1962	1.52	1910	10	.20	2.00	32.17	10.01	1.43	1992	1.51	1882
11	.17	1.70	26.53	4.37	2.01	1995	1.37	1966	11	.20	2.20	32.37	10.21	1.30	1969	1.30	1969
12	.17	1.87	26.70	4.54	.93	1989	1.01	1888	12	.20	2.40	32.57	10.41	.93	1973	4.07	1882
13	.18	2.05	26.88	4.72	1.37	1941	1.37	1941	13	.20	2.60	32.77	10.61	1.84	1977	6.68	1882
14	.18	2.23	27.06	4.90	1.28	1948	2.18	1876	14	.20	2.80	32.97	10.81	1.35	1946	1.35	1946
15	.18	2.41	27.24	5.08	2.43	1950	2.66	1896	15	.20	3.00	33.17	11.01	1.84	1982	1.84	1982
16	.18	2.59	27.42	5.26	1.13	1953	1.13	1953	16	.20	3.20	33.37	11.21	1.19	1994	1.09	1884
17	.19	2.78	27.61	5.45	1.46	1946	1.91	1875	17	.20	3.40	33.57	11.41	1.02	1972	2.26	1885
18	.19	2.97	27.80	5.64	1.99	1946	1.99	1946	18	.20	3.60	33.77	11.61	1.01	1941	1.66	1932
19	.19	3.16	27.99	5.83	.75	1960	2.68	1921	19	.20	3.80	33.97	11.81	1.72	1953	2.01	1895
20	.19	3.35	28.18	6.02	1.50	1962	3.41	1921	20	.20	4.00	34.17	12.01	1.28	1961	2.95	1925
21	.19	3.54	28.37	6.21	1.57	1992	1.57	1992	21	.20	4.20	34.37	12.21	1.99	1955	2.14	1915
22	.20	3.74	28.57	6.41	1.08	1979	2.36	1901	22	.20	4.40	34.57	12.41	1.50	1964	2.20	1936
23	.20	3.94	28.77	6.61	1.80	1942	2.69	1874	23	.20	4.60	34.77	12.61	1.19	1971	1.19	1971
24	.20	4.14	28.97	6.81	2.31	1960	2.31	1960	24	.20	4.80	34.97	12.81	1.72	1980	1.72	1980
25	.20	4.34	29.17	7.01	1.57	1962	1.57	1962	25	.19	4.99	35.16	13.00	1.73	1980	1.73	1980
26	.20	4.54	29.37	7.21	2.26	1945	3.60	1883	26	.19	5.18	35.35	13.19	1.05	1974	3.99	1937
27	.20	4.74	29.57	7.41	1.97	1984	1.97	1984	27	.19	5.37	35.54	13.38	2.17	1942	2.17	1942
28	.20	4.94	29.77	7.61	.89	1940	1.30	1923	28	.19	5.56	35.73	13.57	.88	1965	1.64	1934
29	.20	5.14	29.97	7.81	.67	1942	3.05	1875	29	.19	5.75	35.92	13.76	1.66	1983	2.21	1912
30	.20	5.34	30.17	8.01	1.63	1994	1.39	1875	30	.19	5.94	36.11	13.95	1.37	1970	1.37	1970
									31	.19	6.13	36.30	14.14	1.30	1979	2.79	1875
NORMAL MONTHLY TOTALS					NOV. GREATEST DAILY				NORMAL MONTHLY TOTALS					DEC. GREATEST DAILY			
	5.34	5.34	30.17	8.01	2.43	1950	3.60	1883		6.13	6.13	36.30	14.14	2.17	1942	6.68	1882

\* The Water Year begins on October 1st and ends September 30th.



MONTHLY PRECIPITATION

MONTHLY PRECIPITATION (1871-1995)

Year	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Ann
OFFICIAL PRECIPITATION RECORDS START JAN 1871													
1871	7.60	5.06	9.84	3.64	5.18	0.50	0.55	0.45	1.15	1.19	2.77	7.62	45.55
1872	6.56	12.13	5.28	2.96	0.92	1.52	0.20	0.13	1.26	1.80	4.67	9.47	46.90
1873	8.49	6.58	12.76	2.35	2.18	2.96	1.02	0.84	0.00	3.86	4.33	5.15	50.52
1874	9.46	4.28	5.15	3.68	2.38	2.68	0.19	0.83	1.70	0.36	10.22	5.24	46.17
1875	4.49	1.99	9.41	2.10	2.87	2.07	0.02	0.53	0.71	6.73	15.77	13.41	60.10
1876	4.80	7.50	9.12	5.34	1.88	2.35	0.96	0.56	1.09	10.53	9.93	0.88	54.94
1877	2.75	7.56	11.31	2.44	2.24	2.05	0.54	1.70	3.36	5.03	12.45	6.87	58.30
1878	6.67	12.16	6.23	1.85	2.17	0.13	1.10	0.50	3.54	3.22	5.61	4.52	47.70
1879	5.28	13.22	11.70	2.19	6.60	2.18	1.75	0.97	2.18	4.23	4.56	7.36	62.22
1880	12.27	5.67	4.48	2.92	3.13	1.59	0.59	1.31	1.34	1.47	3.17	13.93	51.87
1881	8.57	13.36	2.83	3.51	1.38	2.34	1.16	2.11	2.64	6.60	5.91	6.64	57.05
1882	5.06	10.49	2.53	4.60	1.84	1.91	0.95	0.07	0.91	11.63	7.11	20.14	67.24
1883	13.71	2.34	6.40	7.88	1.67	0.08	0.00	0.19	0.67	3.91	8.26	6.34	51.45
1884	3.70	4.88	2.25	3.57	1.34	1.42	1.80	0.33	4.25	4.01	3.24	7.52	38.31
1885	4.57	6.72	0.63	1.12	4.69	1.77	0.24	0.00	2.48	1.68	8.52	7.17	39.59
1886	9.37	1.96	5.39	3.16	1.32	0.67	0.32	0.03	1.19	2.87	1.00	11.52	38.76
1887	12.31	2.81	8.00	5.06	4.77	1.44	0.03	0.58	3.06	1.34	3.43	11.34	54.17
1888	8.50	2.42	2.87	2.06	0.68	5.38	1.04	0.05	1.13	4.97	4.47	5.19	38.76
1889	4.78	1.07	1.80	2.72	4.02	0.51	T	0.90	1.61	4.59	3.97	5.79	31.76
1890	11.13	9.85	6.23	1.41	1.08	2.23	0.59	0.13	0.10	2.79	0.50	4.34	40.38
1891	3.62	6.26	2.06	4.00	1.83	4.07	0.24	0.93	2.17	5.04	5.74	11.45	47.41
1892	4.79	2.48	2.82	4.82	1.57	1.41	0.70	0.17	1.63	2.16	4.34	6.69	33.58
1893	2.12	5.19	3.48	4.89	2.30	0.99	0.14	T	2.56	5.01	7.74	4.61	39.03
1894	9.65	5.16	7.48	2.57	1.09	2.16	0.10	T	1.32	3.56	2.76	3.47	39.32
1895	8.53	1.01	2.84	1.91	3.42	0.57	0.23	0.37	1.16	T	2.93	7.79	30.76
1896	6.52	3.44	2.19	4.09	3.55	1.41	T	1.32	0.47	1.76	13.12	6.26	44.13
1897	3.25	5.57	4.00	1.76	0.90	1.35	0.65	0.26	2.79	1.99	11.65	8.84	43.01
1898	3.91	6.51	2.17	2.12	1.78	1.88	0.79	0.15	2.69	1.58	6.03	4.29	33.90
1899	6.42	4.20	2.30	3.73	3.16	0.62	0.47	2.50	1.37	3.97	7.56	5.91	42.21
1900	4.58	3.36	4.63	1.30	3.90	1.76	0.34	2.04	1.93	3.87	4.50	6.01	38.22
1901	7.80	6.52	4.12	4.05	2.41	1.39	0.12	0.17	3.57	0.75	6.14	4.01	41.05
1902	3.11	8.66	5.79	3.71	2.19	0.80	1.76	0.44	1.75	1.72	9.94	10.28	50.15
1903	5.43	1.44	4.29	2.25	1.71	2.00	0.51	0.81	1.13	2.20	10.71	3.14	35.62
1904	5.22	11.08	8.73	2.26	0.59	0.45	0.73	0.20	0.28	2.29	7.40	7.14	46.37
1905	3.66	1.77	5.03	1.71	2.56	2.12	0.12	0.19	2.79	4.73	3.01	6.41	34.10
1906	5.72	6.76	2.23	2.02	2.00	3.03	T	0.05	2.20	3.43	8.30	7.55	43.29
1907	8.23	3.54	3.86	3.57	1.37	1.84	1.19	1.02	1.73	0.93	6.51	9.10	42.89
1908	4.73	2.85	4.39	3.38	4.66	0.67	0.05	1.34	0.23	5.17	3.10	3.80	34.37
1909	9.29	7.03	2.35	0.89	1.79	0.17	2.26	0.05	0.95	2.01	12.49	4.47	43.75
1910	6.26	6.45	2.25	3.78	1.82	1.61	T	0.13	1.15	3.43	8.24	3.53	38.65
1911	8.53	3.34	0.63	2.11	3.95	0.87	0.01	0.28	5.19	0.99	2.64	4.74	33.28
1912	8.01	4.85	1.41	2.04	1.89	3.03	0.48	3.39	1.18	3.36	5.80	8.03	43.47
1913	6.25	1.13	4.04	2.94	1.63	4.24	0.24	0.76	2.58	3.62	5.39	3.48	36.30

MONTHLY PRECIPITATION

MONTHLY PRECIPITATION (cont.)													
Year	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Ann
1914	11.53	4.19	2.28	3.08	1.22	1.52	0.01	0.01	3.10	3.47	3.70	2.56	36.67
1915	5.90	3.07	2.15	2.03	2.59	1.47	1.52	0.01	0.53	1.98	11.32	8.73	41.30
1916	5.69	7.87	10.57	2.85	2.05	1.83	2.55	0.27	0.71	1.26	6.31	3.81	45.77
1917	2.54	3.32	5.33	5.36	2.31	1.17	0.01	T	1.96	0.03	4.24	14.23	40.50
1918	4.68	6.77	3.47	1.13	1.38	0.12	1.08	0.31	0.66	4.47	4.30	3.13	31.50
1919	9.08	8.36	4.64	3.60	1.95	0.91	0.23	0.10	3.18	1.43	7.44	4.78	45.70
1920	4.84	0.16	3.94	4.75	0.91	2.11	1.18	1.25	4.16	3.71	5.84	8.32	41.17
1921	7.82	7.21	4.28	2.26	0.99	1.36	T	0.30	3.08	2.78	10.04	3.09	43.21
1922	3.08	3.29	6.57	3.05	1.60	0.14	T	2.06	1.90	4.70	2.94	9.43	38.76
1923	9.57	1.81	1.83	1.90	1.48	1.19	2.17	0.26	0.59	1.61	4.15	6.25	32.81
1924	3.94	5.21	1.40	0.91	0.45	0.68	0.03	0.62	1.93	5.50	6.11	4.44	31.22
1925	6.94	6.46	1.76	1.92	0.74	0.73	T	0.71	1.50	0.02	5.44	5.14	31.36
1926	3.64	7.71	0.80	0.80	2.83	0.35	0.00	1.95	2.14	5.26	9.78	5.91	41.17
1927	9.18	6.95	2.11	1.69	2.24	2.68	0.95	0.35	5.52	2.65	7.99	3.47	45.78
1928	5.11	1.19	7.21	4.47	0.74	0.44	0.42	T	0.65	1.65	5.30	7.51	34.69
1929	3.50	0.97	2.90	4.06	1.14	2.19	0.02	0.23	0.31	1.33	0.67	8.79	26.11
1930	3.43	5.03	2.21	2.72	3.08	0.69	T	0.06	1.79	2.15	2.84	3.16	27.16
1931	4.30	2.40	8.12	2.40	1.09	3.13	T	0.04	2.10	4.32	6.38	8.40	42.68
1932	5.63	2.58	6.08	3.57	1.50	0.07	0.48	0.45	0.11	3.76	7.88	7.87	39.98
1933	7.94	4.26	5.10	0.95	3.59	2.60	T	0.86	2.97	4.59	2.54	17.45	52.85
1934	6.02	1.40	5.18	2.46	1.60	0.96	0.11	0.33	1.32	5.30	10.47	10.83	45.98
1935	3.45	3.17	5.28	2.48	0.61	0.50	0.28	0.20	0.86	3.20	3.27	5.89	29.19
1936	8.55	4.73	3.10	0.80	3.72	2.43	0.40	0.07	1.41	0.44	0.36	8.28	34.29
1937	6.02	6.34	2.81	6.22	1.06	3.88	0.20	1.41	2.06	2.91	10.08	13.86	56.85
1938	5.06	7.83	6.42	2.02	0.65	0.45	0.25	0.35	1.38	2.87	4.83	4.16	36.27
1939	4.69	5.26	2.29	0.55	1.08	1.73	0.79	1.52	0.60	2.14	1.73	8.37	30.75
1940	2.36	10.82	5.12	2.76	1.57	0.06	0.39	0.07	3.56	4.26	4.82	5.03	40.82
1941	5.24	1.45	2.01	1.56	4.97	1.05	T	1.63	3.58	2.45	4.62	10.38	38.94
1942	3.63	3.64	1.63	2.38	2.84	1.94	1.40	0.17	0.06	3.49	11.57	9.37	42.12
1943	5.50	3.27	5.54	2.21	1.42	2.80	0.32	1.39	0.06	5.59	2.20	2.70	33.00
1944	2.81	3.11	1.93	2.28	1.07	0.81	0.06	0.03	2.73	1.64	5.00	1.90	23.37
1945	4.10	4.36	5.30	2.42	4.57	0.07	0.51	0.37	3.96	2.11	8.58	5.61	41.96
1946	5.12	4.99	4.23	0.78	1.24	1.91	1.08	0.18	1.15	4.81	7.57	5.47	38.53
1947	3.72	2.77	4.11	1.81	0.66	2.93	0.94	0.29	1.06	8.04	4.08	4.64	35.05
1948	5.87	5.02	4.24	3.41	3.76	**	**	**	3.28	2.39	6.89	8.06	**
1949	1.02	9.46	2.78	0.72	2.12	0.68	0.91	0.24	1.66	2.35	5.56	4.86	32.36
1950	10.10	5.77	4.76	2.74	0.57	2.50	0.50	0.72	1.45	7.00	8.67	6.31	51.09
1951	7.71	5.02	3.86	1.14	1.75	0.03	0.28	0.02	2.55	6.81	5.31	5.06	39.54
1952	4.40	3.59	3.82	1.45	0.78	2.23	T	0.18	0.33	0.72	1.44	6.76	25.70
1953	12.83	3.71	3.82	1.89	3.45	2.04	0.03	1.79	1.16	3.56	6.16	7.85	48.29
1954	8.95	4.57	2.55	2.54	1.83	3.58	1.24	1.92	0.85	3.40	5.09	5.01	41.53
1955	2.30	3.37	3.06	4.72	1.24	1.83	0.89	T	2.86	6.69	7.34	10.14	44.44
1956	11.66	3.03	4.30	0.53	2.50	2.03	0.01	2.56	1.12	5.10	1.47	3.64	37.95
1957	2.23	4.14	7.52	1.84	1.97	0.73	0.19	0.69	0.49	3.53	3.07	6.15	32.55

MONTHLY PRECIPITATION

MONTHLY PRECIPITATION (cont.)													
Year	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Ann
1958	6.56	5.13	2.20	3.33	1.35	3.04	T	0.02	1.05	1.49	6.39	5.06	35.62
1959	7.57	4.18	3.22	0.92	2.89	2.38	0.56	0.09	2.81	3.51	3.30	3.08	34.51
1960	3.93	4.00	4.77	3.33	3.37	0.52	T	1.00	1.37	2.39	8.63	2.61	35.92
1961	4.50	8.92	6.04	3.59	2.80	0.47	0.42	1.07	0.64	2.89	4.67	5.94	41.95
1962	1.58	3.43	4.25	3.15	2.56	0.78	0.06	1.49	1.66	3.31	9.32	2.59	34.18
1963	2.27	3.48	4.69	3.78	2.74	1.71	1.17	0.87	0.75	3.04	5.64	3.60	33.74
1964	9.51	0.78	2.30	1.56	1.04	1.96	0.68	0.90	1.61	0.84	6.78	9.92	37.88
1965	7.44	2.22	1.10	2.20	1.31	0.83	0.44	0.73	0.01	2.03	5.64	7.34	31.29
1966	5.74	1.70	4.71	0.85	0.91	1.02	1.19	0.59	1.70	3.06	5.50	6.89	33.86
1967	6.21	2.02	4.31	2.17	1.02	1.01	0.00	T	0.76	4.72	2.27	4.75	29.24
1968	4.58	6.64	2.68	1.91	3.63	2.20	0.14	4.53	2.20	5.03	6.23	11.12	50.89
1969	7.60	3.14	1.13	2.28	1.61	2.99	0.14	0.04	3.86	3.02	3.18	8.12	37.11
1970	11.81	4.77	2.58	2.94	1.55	0.49	0.05	T	1.18	2.85	5.72	7.49	41.35
1971	7.09	3.36	4.87	2.72	1.00	1.76	0.26	0.95	3.53	2.37	5.76	8.05	41.72
1972	5.71	4.08	5.41	2.98	2.23	0.68	0.56	0.67	3.06	0.87	3.78	8.79	38.82
1973	3.69	1.94	2.45	1.33	1.43	1.45	0.06	1.41	3.29	3.14	11.55	9.93	41.67
1974	8.51	4.61	5.65	1.76	1.74	0.80	2.01	0.07	0.21	2.14	6.73	6.05	40.28
1975	8.43	4.75	3.45	1.88	1.35	1.13	0.43	2.10	T	4.76	4.10	6.68	39.06
1976	5.14	4.92	2.93	2.34	2.29	0.78	0.66	3.29	0.73	1.48	0.77	1.38	26.71
1977	1.07	2.49	3.50	1.04	4.30	0.83	0.39	3.26	3.33	2.28	5.56	8.98	37.03
1978	4.85	3.28	1.49	3.96	3.17	1.69	1.36	2.05	2.07	0.36	3.83	2.51	30.62
1979	2.55	6.53	2.51	2.47	2.41	0.64	0.25	1.18	1.75	4.85	3.38	7.23	35.75
1980	8.51	4.01	3.11	2.58	2.19	2.50	0.19	0.39	1.56	1.18	6.47	9.72	42.41
1981	1.47	3.86	2.33	1.79	2.25	3.23	0.24	0.15	1.86	4.12	4.62	8.37	34.29
1982	6.31	5.98	2.38	3.56	0.46	1.66	0.94	1.66	3.98	4.44	3.51	8.16	43.04
1983	6.23	7.78	6.80	1.87	1.30	1.95	2.68	2.29	0.39	1.95	8.65	5.30	47.19
1984	2.01	3.93	3.19	3.20	3.41	4.06	T	0.09	1.46	3.85	9.74	2.56	37.50
1985	0.06	1.79	3.08	1.07	1.52	2.34	0.55	0.48	2.76	2.75	3.89	2.19	22.48
1986	4.65	5.31	2.60	1.91	2.19	0.23	1.20	0.10	4.30	1.99	6.26	4.30	35.04
1987	6.93	2.45	4.91	1.94	1.63	0.14	1.03	0.35	0.30	0.27	1.96	8.00	29.91
1988	4.95	1.17	3.13	4.57	2.53	2.34	0.69	0.10	1.76	0.19	7.92	2.37	31.72
1989	3.30	2.84	6.73	2.08	2.87	0.78	0.91	1.07	1.48	1.73	3.18	3.08	30.05
1990	7.95	3.43	2.52	2.31	2.37	1.94	0.32	0.95	0.34	4.65	3.68	2.40	32.86
1991	2.56	3.65	4.64	4.05	3.34	2.31	0.07	0.70	0.02	1.51	6.36	4.34	33.55
1992	4.31	4.12	1.87	3.82	0.10	0.60	0.67	0.49	1.12	2.87	4.55	4.98	29.50
1993	3.06	0.72	4.39	5.26	4.36	1.69	2.41	0.37	T	1.59	1.50	5.01	30.36
1994	3.56	4.92	1.84	1.91	0.56	1.67	0.07	0.13	1.13	8.41	5.91	4.85	34.96
1995	5.56	3.19	3.82	3.49	1.65	2.62	1.23	0.81	1.31	3.15	11.15	5.91	43.32
<b>Average Monthly PRECIPITATION (1871-1995)</b>													
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Ann
AVG	5.88	4.69	4.15	2.67	2.12	1.57	0.56	0.73	1.74	3.19	5.84	6.54	39.64
<b>Average Monthly PRECIPITATION 30 YEAR (1961-90)</b>													
AVG	5.35	3.85	3.56	2.39	2.06	1.48	0.63	1.09	1.75	2.67	5.34	6.13	36.30

\*\*Airport location flooded-office temporarily moved to downtown Portland. Data not available.

WETTEST/DRIEST MONTHS

**MONTHLY and ANNUAL PRECIPITATION: WETTEST AND DRIEST 5**

	1871-1995 DATA				1941-1995 DATA			
	WETTEST 5		DRIEST 5		WETTEST 5		DRIEST 5	
JANUARY	13.71	1883	0.06	1985	12.83	1953	0.06	1985
	12.83	1953	1.02	1949	11.81	1970	1.02	1979
	12.31	1887	1.07	1977	11.66	1956	1.07	1977
	12.27	1880	1.47	1981	10.10	1950	1.47	1981
	11.81	1970	1.58	1962	9.64	1964	1.58	1962
	AVERAGE		5.88 inches		AVERAGE (1961-90)		5.35 inches	
FEBRUARY	13.36	1881	0.16	1920	9.46	1949	0.72	1993
	13.22	1879	0.72	1993	8.92	1961	0.78	1964
	12.16	1878	0.78	1964	7.78	1983	1.70	1966
	12.13	1872	0.97	1929	6.64	1968	1.79	1985
	11.08	1904	1.01	1889	6.53	1979	1.94	1973
	AVERAGE		4.69 inches		AVERAGE (1961-90)		3.85 inches	
MARCH	12.76	1873	0.63	1911	7.52	1957	1.10	1965
	11.70	1879	0.80	1926	6.80	1983	1.13	1969
	11.31	1877	1.10	1965	6.73	1989	1.49	1979
	10.57	1916	1.13	1969	6.04	1961	1.63	1942
	9.84	1871	1.40	1924	5.65	1974	1.84	1994
	AVERAGE		4.15 inches		AVERAGE (1961-90)		3.56 inches	
APRIL	7.88	1883	0.53	1956	5.26	1993	0.53	1956
	6.22	1937	0.55	1939	4.72	1955	0.72	1949
	5.36	1917	0.72	1949	4.57	1988	0.78	1946
	5.34	1876	0.78	1946	4.05	1991	0.85	1966
	5.26	1993	0.80	1926	3.96	1978	0.92	1959
	AVERAGE		2.67 inches		AVERAGE (1961-90)		2.39 inches	
MAY	6.60	1879	0.10	1992	4.57	1945	0.10	1992
	5.18	1871	0.45	1924	4.36	1993	0.46	1982
	4.97	1941	0.46	1982	4.30	1977	0.56	1994
	4.77	1887	0.56	1994	3.76	1948	0.57	1950
	4.69	1885	0.57	1950	3.63	1968	0.66	1947
	AVERAGE		2.12 inches		AVERAGE (1961-90)		2.06 inches	
JUNE	5.38	1888	0.03	1951	4.06	1984	0.03	1951
	4.24	1913	0.06	1940	3.58	1954	0.07	1945
	4.07	1891	0.07	1945*	3.23	1981	0.14	1987
	4.06	1984	0.08	1883	3.04	1958	0.23	1986
	3.88	1937	0.12	1918	2.99	1969	0.47	1961
	AVERAGE		1.57 inches		AVERAGE (1961-90)		1.48 inches	
JULY	2.68	1983	0.00	1967*	2.68	1983	0.00	1967
	2.55	1916	Trace	1984*	2.41	1993	Trace	1984*
	2.41	1993	0.01	1956*	2.01	1974	0.01	1956
	2.26	1909	0.02	1929*	1.40	1942	0.03	1953
	2.17	1923	0.03	1953*	1.36	1978	0.05	1970
	AVERAGE		0.56 inch		AVERAGE (1961-90)		0.63 inch	

WETTEST/DRIEST MONTHS

WETTEST AND DRIEST 5 MONTHS (cont.)

	1871-1995 DATA				1941-1995 DATA			
	WETTEST 5		DRIEST 5		WETTEST 5		DRIEST 5	
AUGUST	4.53	1968	0.00	1885	4.53	1968	Trace	1970*
	3.39	1912	Trace	1970*	3.29	1976	0.02	1958
	3.29	1976	0.01	1915*	3.26	1977	0.03	1944
	3.26	1977	0.02	1958*	2.56	1956	0.04	1969
	2.56	1956	0.03	1944	2.29	1983	0.07	1974
	AVERAGE		0.73 inch		AVERAGE (1961-90)		1.09 inches	
SEPTEMBER	5.52	1927	0.00	1873	4.30	1986	Trace	1993
	5.19	1911	Trace	1993	3.38	1982	0.01	1965
	4.30	1986	0.01	1965	3.96	1945	0.02	1991
	4.25	1884	0.02	1991	3.86	1969	0.21	1974
	4.16	1920	0.06	1943	3.53	1973	0.30	1987
	AVERAGE		1.74 inches		AVERAGE (1961-90)		1.75 inches	
OCTOBER	11.63	1882	Trace	1895	8.41	1994	0.19	1988
	10.53	1876	0.02	1925	8.04	1947	0.27	1987
	8.41	1994	0.03	1917	7.00	1950	0.36	1978
	8.04	1947	0.19	1988	6.81	1951	0.72	1952
	7.00	1950	0.27	1987	6.69	1955	0.84	1964
	AVERAGE		3.19 inches		AVERAGE (1961-90)		2.67 inches	
NOVEMBER	15.77	1875	0.36	1936	11.57	1942	0.77	1976
	13.12	1896	0.50	1890	11.55	1973	1.44	1952
	12.49	1909	0.67	1929	11.15	1995	1.47	1956
	12.45	1877	0.77	1976	9.74	1984	1.50	1993
	11.65	1897	1.00	1886	9.32	1962	1.96	1987
	AVERAGE		5.84 inches		AVERAGE (1961-90)		5.34 inches	
DECEMBER	20.14	1882	0.88	1876	11.12	1968	1.38	1976
	17.45	1933	1.38	1976	10.14	1955	1.90	1944
	14.23	1917	1.90	1944	9.93	1973	2.19	1985
	13.93	1880	2.19	1985	9.92	1964	2.37	1988
	13.86	1937	2.37	1988	9.72	1980	2.40	1990
	AVERAGE		6.54 inches		AVERAGE (1961-90)		6.13 inches	
ANNUAL	67.24	1882	22.48	1985	51.09	1950	22.48	1985
	62.22	1879	23.37	1944	50.89	1968	23.37	1944
	60.10	1875	25.70	1952	48.29	1953	25.70	1952
	58.30	1877	26.11	1929	47.19	1983	26.71	1976
	57.05	1881	26.71	1976	44.44	1955	29.24	1967
	AVERAGE		39.64 inches		AVERAGE (1961-90)		36.30 inches	

NOTES: \* indicates most recent occurrence is listed  
All totals are in units of inches.

MORE RAINFALL RECORDS

MORE RAINFALL RECORDS

**Greatest 24-Hour Rainfall Records**

**1941-1995**

**1872-1995**

January	2.61 inches	14-15th	1974
February	2.46 inches	23-24th	1994
March	1.83 inches	30-31st	1943
April	1.47 inches	26-27th	1962
May	1.47 inches	19th	1968
June	1.82 inches	5-6th	1958
July	1.09 inches	15-16th	1978
August	1.54 inches	25-26th	1977
September	2.38 inches	19-20th	1982
October	4.44 inches	26-27th	1994
November	2.82 inches	10-11th	1995
December	2.59 inches	12-13th	1977
Greatest	4.44 inches	Oct 26-27,	1994

January	6.86 inches	5-6th	1883
February	3.81 inches	1-2nd	1890
March	2.50 inches	30-31st	1931
April	1.96 inches	12-13th	1937
May	1.83 inches	14-15th	1908
June	2.16 inches	8-9th	1933
July	1.35 inches	1-2nd	1902
August	1.75 inches	8-9th	1900
Sept.	2.88 inches	4-5th	1911
October	4.44 inches	26-27th	1994
Nov.	4.43 inches	19-20th	1921
December	7.66 inches	12-13th	1882
Greatest	7.66 inches	Dec 12-13,	1882

**Consecutive Days with Measurable Rain (more than 0.01 inch)  
(1871-1995)**

40 days	15.50 inches	February 6-March 16, 1872
37 days	17.02 inches	January 15-February 20, 1878
29 days	10.01 inches	January 2-31, 1950
26 days	7.73 inches	February 21-March 18, 1919
24 days	10.78 inches	December 18, 1964-January 10, 1965
24 days	6.30 inches	January 29-February 21, 1885
24 days	10.25 inches	February 6-29, 1872
23 days	10.62 inches	December 23, 1965-January 14, 1966
22 days	7.23 inches	February 8-March 1, 1983
22 days	9.46 inches	February 1-22, 1949

**Consecutive Days with No Rainfall  
(1941-1995)**

71 days	June 23-September 1, 1967
62 days	June 30-August 30, 1984
55 days	June 20-August 13, 1960
55 days	June 30-August 23, 1952
53 days	July 5-August 26, 1980
52 days	June 7-July 30, 1985
47 days	July 13-August 28, 1981
46 days	August 11-September 25, 1957
42 days	August 25-October 5, 1993
41 days	July 7-August 16, 1990

**GREATEST RAINFALL (inches) DURING A TIME SPAN OF...**

**PDX Airport Location (1953-1995)**

Month	5 Min.	Date	10 Min.	Date	15 Min.	Date	30 Min.	Date	1 Hr	Date	2 Hrs.	Date	3 Hrs.	Date
JAN	0.18	22/1970	0.27	22/1970	0.31	22/1970	0.48	22/1970	0.92	22/1970	1.16	22/1970	1.28	22/1970
FEB	0.12	7/1978	0.15	7/1978	0.25	7/1978	0.36	7/1978	0.36	20/1991	0.56	1/1961	0.71	25/1957
MAR	0.12	12/1972	0.19	12/1972	0.29	12/1970	0.34	29/1983	0.43	9/1983	0.69	9/1983	0.79	21/1953
APR	0.15	29/1992	0.17	29/1992	0.18	29/1992	0.24	7/1991	0.35	7/1984	0.52	25/1989	0.75	25/1989
MAY	0.30	19/1968	0.42	19/1968	0.52	19/1968	0.55	19/1968	0.67	19/1968	0.82	19/1968	0.94	19/1968
JUNE	0.40	14/1978	0.43	14/1978	0.44	14/1978	0.44	14/1978	0.44	14/1978	0.47	6/1990	0.50	6/1950
JULY	0.28	30/1982	0.34	30/1982	0.37	30/1982	0.48	8/1983	0.50	9/1995	0.65	9/1995	0.94	9/1995
AUG	0.35	30/1954	0.52	19/1968	0.61	19/1968	0.82	19/1968	0.89	19/1968	0.89	19/1968	0.89	19/1968
SEPT	0.28	11/1966	0.41	9/1972	0.46	19/1988	0.51	19/1988	0.59	17/1970	0.99	17/1970	1.36	17/1970
OCT	0.22	6/1982	0.25	6/1982	0.26	25/1984	0.30	25/1984	0.42	25/1984	0.69	26/1994	0.94	26/1994
NOV	0.15	3/1983	0.21	13/1966	0.24	13/1966	0.28	8/1980	0.43	12/1989	0.65	12/1989	0.73	15/1973
DEC	0.16	9/1953	0.23	6/1981	0.24	6/1981	0.28	2/1980	0.40	10/1992	0.68	10/1992	1.05	4/1968
Greatest 1953-95	0.40	June 14 1978	0.52	Aug 19 1968	0.61	Aug 19 1968	0.82	Aug 19 1968	0.92	Jan 22 1970	1.16	Jan 22 1970	1.36	Sept 17 1970

89

**ALL YEARS: City Office (1890-1950) and Airport Location (1953-1995)**

Month	5 Min.	Date	10 Min.	Date	15 Min.	Date	30 Min.	Date	1 Hr	Date	2 Hrs.	Date
JAN	0.18	22/1970	0.27	22/1970	0.31	22/1970	0.48	22/1970	0.92	22/1970	1.16	22/1970
FEB	0.15	4/1942	0.21	4/1942	0.25	7/1978	0.36	7/1978	0.41	5/1938	0.76	5/1938
MAR	0.16	30/1947	0.27	28/1934	0.37	28/1934	0.50	28/1934	0.56	28/1934	0.69	9/1983
APR	0.17	27/1930	0.26	25/1906	0.34	25/1906	0.35	25/1906	0.43	27/1930	0.55	27/1930
MAY	0.30	19/1968	0.42	19/1968	0.52	19/1968	0.55	19/1968	0.67	19/1968	0.82	19/1968
JUNE	0.40	14/1978	0.46	7/1927	0.64	7/1927	1.06	7/1927	1.31	7/1927	1.74	7/1927
JULY	0.28	30/1982	0.34	30/1982	0.39	2/1907	0.69	2/1907	0.82	2/1907	0.93	2/1907
AUG	0.40	8/1900	0.70	8/1900	0.83	8/1900	1.10	8/1900	1.25	8/1900	1.25	8/1900
SEPT	0.28	11/1966	0.53	6/1927	0.61	6/1927	0.69	6/1927	0.87	6/1927	1.09	28/1927
OCT	0.22	6/1982	0.25	6/1982	0.28	28/1933	0.42	28/1933	0.50	28/1933	0.69	26/1994
NOV	0.21	2/1933	0.25	2/1933	0.28	2/1933	0.37	8/1937	0.49	14/1896	0.84	20/1921
DEC	0.16	9/1953	0.23	6/1981	0.24	6/1981	0.28	2/1980	0.42	6/1923	0.68	10/1992
Greatest All Years	0.40	June 14 1978	0.70	Aug 8 1900	0.83	Aug 8 1900	1.10	Aug 8 1900	1.31	June 7 1927	1.74	June 7 1927

DAYS WITH MEASURABLE PRECIPITATION OF 0.01 INCH OR MORE, 1940-1995*												
DAY	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	34	34	33	35	23	15	10	5	13	12	32	43
2	34	27	32	26	27	11	12	5	9	18	24	36
3	33	29	35	21	24	19	10	8	11	15	29	41
4	31	32	34	28	25	20	14	5	14	20	34	39
5	35	31	30	28	24	23	13	2	10	16	34	39
6	27	28	29	28	21	26	9	7	12	21	35	39
7	34	28	24	24	20	17	8	8	16	21	37	37
8	37	30	29	31	24	11	11	4	12	19	32	37
9	35	32	33	32	23	17	10	3	14	22	38	36
10	39	30	31	29	22	21	11	4	17	27	33	32
11	36	36	34	26	22	19	5	5	11	23	37	32
12	38	39	33	23	24	22	5	6	10	25	35	31
13	37	28	34	24	23	21	4	9	13	19	38	31
14	33	36	34	25	28	26	7	8	19	16	36	31
15	38	39	33	28	23	15	10	9	19	12	34	32
16	40	37	29	29	17	19	6	11	15	14	34	30
17	35	35	29	26	19	16	6	6	18	19	44	29
18	29	32	30	27	17	13	3	6	17	20	35	35
19	26	33	26	30	26	16	5	12	17	20	39	34
20	27	27	29	26	16	14	8	5	19	30	34	36
21	28	26	27	31	17	11	5	10	13	28	35	38
22	34	31	36	28	24	13	2	11	13	28	31	34
23	35	33	35	30	20	13	3	15	12	28	36	35
24	36	31	33	28	22	18	5	16	14	25	40	35
25	33	25	33	24	20	18	7	16	18	31	36	32
26	33	33	30	25	26	13	6	11	19	27	33	37
27	30	30	27	27	22	17	7	11	15	28	40	37
28	27	31	27	32	21	20	5	15	17	31	30	36
29	32	7	31	22	17	16	3	15	10	28	33	36
30	30		32	27	18	21	4	16	16	32	39	35
31	36		35		20		4	13		29		35

\*Based on observations taken at the National Weather Service office on Marine Drive near Portland International Airport.

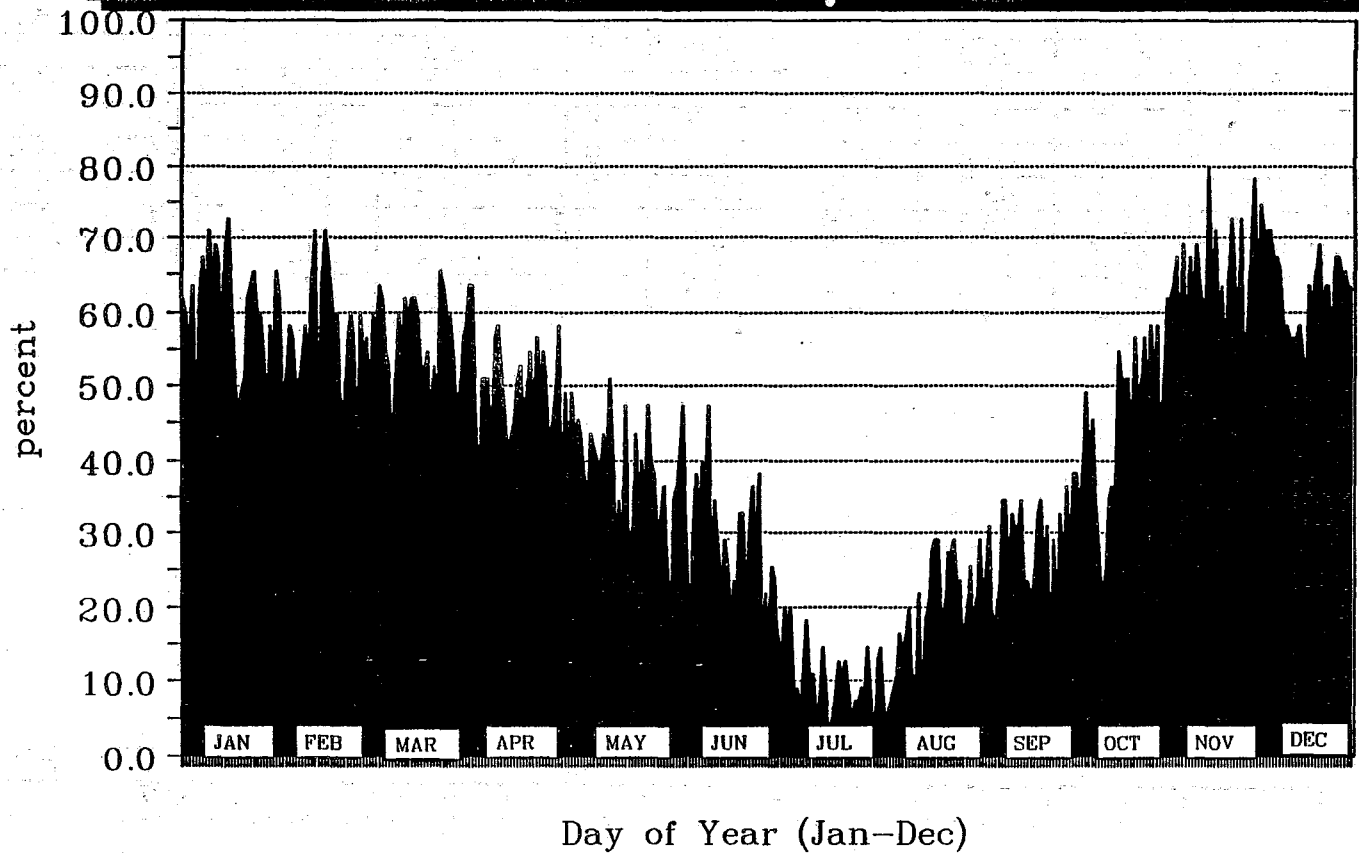


DAILY PROBABILITY OF MEASURABLE PRECIPITATION (0.01 inch or greater)*												
DAY	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	61.8	61.8	60.0	63.6	41.8	27.3	18.2	9.1	23.6	21.8	58.2	78.2
2	61.8	49.1	58.2	47.3	49.1	20.0	21.8	9.1	16.4	32.7	43.6	65.5
3	60.0	52.7	63.6	38.2	43.6	34.5	18.2	14.5	20.0	27.3	52.7	74.5
4	56.4	58.2	61.8	50.9	45.5	36.4	25.5	9.1	25.5	36.4	61.8	70.9
5	63.6	56.4	54.5	50.9	43.6	41.2	23.6	3.6	18.2	29.1	61.8	70.9
6	49.1	50.9	52.7	50.9	38.2	47.3	16.4	12.7	21.8	38.2	63.6	70.9
7	61.8	50.9	43.6	43.6	36.4	30.9	14.5	14.5	29.1	38.2	67.3	67.3
8	67.3	54.5	52.7	56.4	43.6	20.0	20.0	7.3	21.8	34.5	58.2	67.3
9	63.6	58.2	60.0	58.2	41.8	30.9	18.2	5.5	25.5	40.0	69.1	65.5
10	70.9	54.5	56.4	52.7	40.0	38.2	20.0	7.3	30.9	49.1	60.0	58.2
11	65.5	65.5	61.8	47.3	40.0	34.5	9.1	9.1	20.0	41.8	67.3	58.2
12	69.1	70.9	60.0	41.8	43.6	40.0	9.1	10.9	18.2	45.5	63.6	56.4
13	67.3	50.9	61.8	43.6	41.8	38.2	7.3	16.4	23.6	34.5	69.1	56.4
14	60.0	65.5	61.8	45.5	50.9	47.3	12.7	14.5	34.5	29.1	65.5	56.4
15	69.1	70.9	60.0	50.9	41.8	27.3	18.2	16.4	34.5	21.8	61.8	58.2
16	72.7	67.3	52.7	52.7	30.9	34.5	10.9	20.0	27.3	25.5	61.8	54.5
17	63.6	63.6	52.7	47.2	34.5	29.1	10.9	10.9	32.7	34.5	80.0	52.7
18	52.7	58.2	54.5	49.1	30.9	23.6	5.5	10.9	30.9	36.4	63.6	63.6
19	47.3	60.0	47.3	54.5	47.3	29.1	9.1	21.8	30.9	36.4	70.9	61.8
20	49.1	49.1	52.7	47.3	29.1	25.5	14.5	9.1	34.5	54.5	61.8	65.5
21	50.9	47.3	49.1	56.4	30.9	20.0	9.1	18.2	23.6	50.9	63.6	69.1
22	61.8	56.4	65.5	50.9	43.6	23.6	3.6	20.0	23.6	50.9	56.4	61.8
23	63.6	60.0	63.6	54.5	36.4	23.6	5.5	27.3	21.8	50.9	65.5	63.6
24	65.5	56.4	60.0	50.9	40.0	32.7	9.1	29.1	25.5	45.5	72.7	63.6
25	60.0	45.5	60.0	43.6	36.4	32.7	12.7	29.1	32.7	56.4	65.5	58.2
26	60.0	60.5	54.5	45.5	47.3	23.6	10.9	20.0	34.5	49.1	60.0	67.3
27	54.5	54.5	49.1	49.1	40.0	30.9	12.7	20.0	27.3	50.9	72.7	67.3
28	49.1	56.4	49.1	58.2	38.2	36.4	9.1	27.3	30.9	56.4	54.5	65.5
29	58.2	50.9	56.4	40.0	30.9	29.1	5.5	27.3	18.2	50.9	60.0	65.5
30	54.5		58.2	49.1	32.7	38.2	7.3	29.1	29.1	58.2	70.9	63.6
31	65.5		63.6		36.4		7.3	23.6		52.7		63.6

\*Probabilities based on rainfall measurements taken at the National Weather Service office on Marine Drive near Portland International Airport from 1940 through 1995.

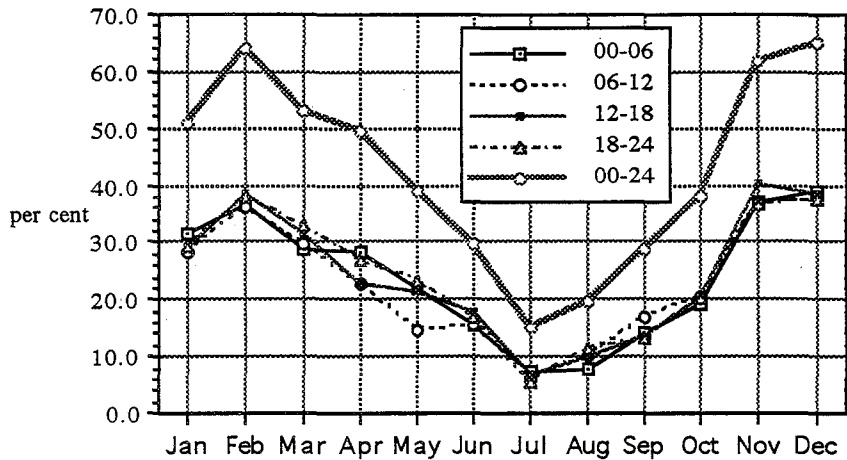
# DAILY PROBABILITY OF RAINFALL

(based on rainfall data 1940-1995)



**PROBABILITY OF RECEIVING 0.01 INCH OR MORE OF RAINFALL  
BASED ON TIME OF DAY\***

**PROBABILITY OF RECEIVING AT LEAST 0.01 INCH**



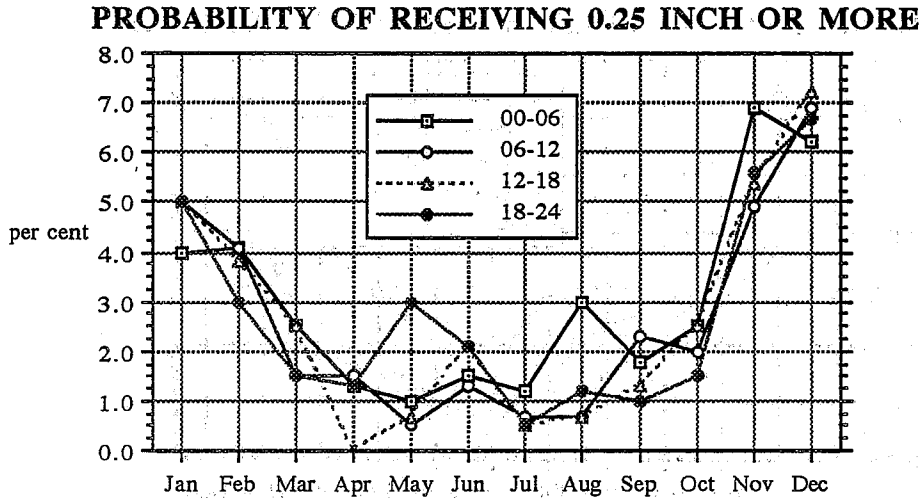
**PROBABILITY (%) OF RECEIVING AT LEAST 0.01 INCH**

MONTH	INTERVAL OF TIME OF DAY						
	00-06	06-12	12-18	18-24	00-12	12-24	00-24
January	31.5	28.3	29.3	29.5	40.7	37.5	50.6
February	36.8	36.2	38.4	38.1	49.6	51.8	64.0
March	28.6	29.8	31.5	33.0	39.6	43.9	53.2
April	28.5	22.8	22.8	26.9	36.4	36.9	49.2
May	21.8	14.6	21.3	23.3	25.6	30.8	39.0
June	15.7	15.4	17.7	16.9	21.6	23.3	29.8
July	7.2	6.0	6.7	5.7	9.9	10.7	15.1
August	7.9	9.9	9.9	11.4	12.7	13.9	19.9
September	14.4	16.7	13.6	13.3	21.8	18.7	28.7
October	19.1	20.8	20.6	20.1	29.3	27.4	37.9
November	36.9	37.2	40.3	36.4	48.7	50.8	61.8
December	38.7	37.5	38.5	37.7	49.1	50.4	64.8

\*NOTE: Time of day is denoted in military clock hours. For example 00-06 represents the interval between midnight and 6 am. Data is based on 1972-1985 rainfall data.

RAINFALL PROBABILITY

**PROBABILITY OF RECEIVING 0.25 INCH OR MORE OF RAINFALL  
BASED ON TIME OF DAY\***



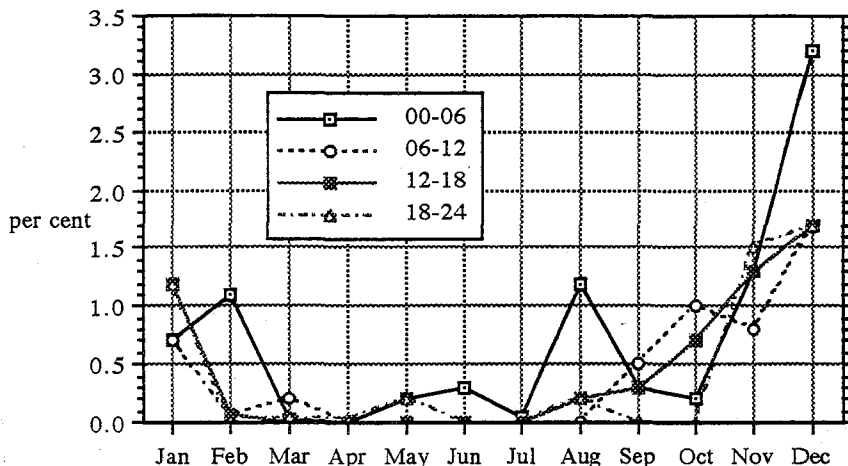
**PROBABILITY (%) OF RECEIVING AT LEAST 0.25 INCH**

MONTH	INTERVAL OF TIME OF DAY				TOTAL		
	00-06	06-12	12-18	18-24	00-12	12-24	00-24
January	4.0	5.0	5.0	5.0	8.9	10.7	18.9
February	4.1	4.1	3.8	3.0	10.9	9.0	22.6
March	2.5	1.5	2.5	1.5	6.7	5.7	16.7
April	1.3	1.5	0.0	1.3	4.6	3.3	11.0
May	1.0	0.5	0.7	3.0	2.7	5.2	8.4
June	1.5	1.3	2.1	2.1	3.1	4.9	7.5
July	1.2	0.7	0.5	0.5	2.0	1.0	2.7
August	3.0	0.7	0.7	1.2	3.5	3.0	6.2
September	1.8	2.3	1.3	1.0	4.4	3.8	8.7
October	2.5	2.0	2.5	1.5	5.5	4.5	12.2
November	6.9	4.9	5.4	5.6	12.8	11.0	24.9
December	6.2	6.9	7.2	6.7	14.4	12.7	26.8

\*NOTE: Time of day is denoted in military clock hours. For example 00-06 represents the interval between midnight and 6 am. Data is based on 1972-1985 rainfall data.

**PROBABILITY OF RECEIVING 0.50 INCH OR MORE OF RAINFALL  
BASED ON TIME OF DAY\***

**PROBABILITY OF RECEIVING 0.50 INCH OR MORE**



**PROBABILITY (%) OF RECEIVING AT LEAST 0.50 INCH**

MONTH	INTERVAL OF TIME OF DAY						
	00-06	06-12	12-18	18-24	00-12	12-24	00-24
January	0.7	0.7	1.2	1.2	3.7	4.0	8.7
February	1.1	0.5	0.8	0.3	3.3	2.2	9.0
March	0.2	0.2	0.0	0.5	1.5	1.0	5.0
April	0.0	0.0	0.0	0.3	0.3	0.3	0.3
May	0.2	0.0	0.0	0.2	0.2	1.2	2.7
June	0.3	0.0	0.0	0.0	0.8	1.3	3.3
July	0.5	0.0	0.0	0.0	0.5	0.0	1.2
August	1.2	0.0	0.2	0.2	1.5	0.5	2.7
September	0.3	0.5	0.3	0.0	1.3	1.0	3.1
October	0.2	1.0	0.7	0.0	1.5	1.7	4.7
November	1.3	0.8	1.3	1.5	4.4	4.1	11.0
December	3.2	1.7	1.7	1.7	5.7	5.7	14.4

\*NOTE: Time of day is denoted in military clock hours. For example 00-06 represents the interval between midnight and 6 am. Data is based on 1972-1985 rainfall data.

RAINFALL PROBABILITY

**PROBABILITY OF RECEIVING 1.00 INCH OR MORE OF RAINFALL  
BASED ON TIME OF DAY\***

**PROBABILITY (%) OF RECEIVING AT LEAST 1.00 INCH**

MONTH	INTERVAL OF TIME OF DAY						
	00-06	06-12	12-18	18-24	00-12	12-24	00-24
January	0.0	0.2	0.2	0.0	1.0	0.5	3.7
February	0.0	0.0	0.3	0.0	0.0	0.3	1.1
March	0.0	0.0	0.0	0.0	0.0	0.2	0.5
April	0.0	0.0	0.0	0.0	0.0	0.0	0.0
May	0.0	0.0	0.0	0.0	0.0	0.0	0.5
June	0.0	0.0	0.0	0.0	0.0	0.0	0.3
July	0.0	0.0	0.0	0.0	0.0	0.0	0.2
August	0.0	0.0	0.0	0.0	0.2	0.0	0.5
September	0.0	0.3	0.0	0.0	0.3	0.0	0.5
October	0.0	0.0	0.0	0.0	0.2	0.0	0.7
November	0.0	0.0	0.0	0.0	1.0	1.0	2.8
December	0.0	0.2	0.5	0.0	1.5	1.5	5.2

**PROBABILITY (%) OF RECEIVING AT LEAST 2.00 INCH**

MONTH	INTERVAL OF TIME OF DAY						
	00-06	06-12	12-18	18-24	00-12	12-24	00-24
January	0.0	0.0	0.0	0.0	0.0	0.0	0.2
February	0.0	0.0	0.0	0.0	0.0	0.0	0.3
March	0.0	0.0	0.0	0.0	0.0	0.0	0.0
April	0.0	0.0	0.0	0.0	0.0	0.0	0.0
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0
June	0.0	0.0	0.0	0.0	0.0	0.0	0.0
July	0.0	0.0	0.0	0.0	0.0	0.0	0.0
August	0.0	0.0	0.0	0.0	0.0	0.0	0.0
September	0.0	0.0	0.0	0.0	0.0	0.0	0.3
October	0.0	0.0	0.0	0.0	0.0	0.0	0.0
November	0.0	0.0	0.0	0.0	0.0	0.0	0.5
December	0.0	0.0	0.0	0.0	0.0	0.0	0.2

\*NOTE: Time of day is denoted in military clock hours. For example 00-06 represents the interval between midnight and 6 am. Data is based on 1972-1985 rainfall data.

**MONTHLY AND SEASONAL SNOWFALL (1871-1995)**  
(includes accumulations of snow, sleet, ice pellets, and hail)

Season	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
1871-72	0	0	0	0	5.0	25.0	4.6	15.4	0	0	0	0	50.0
1872-73	0	0	0	0	8.6	20.0	0	1.7	0	0	0	0	30.3
1873-74	0	0	0	0	T	4.9	12.9	3.1	15.2	0	0	0	36.1
1874-75	0	0	0	0	0	0	3.2	0	0	0	0	0	3.2
1875-76	0	0	0	0	7.8	13.6	5.5	2.0	0	0	0	0	28.6
1876-77	0	0	0	0	0	0	T	3.4	0	0	0	0	3.4
1877-78	0	0	0	0	0	0	1.0	0	0	0	0	0	1.0
1878-79	0	0	0	0	0	0.5	2.0	9.0	0	0	0	0	11.5
1879-80	0	0	0	0	0	9.1	9.5	0.1	0.1	0	0	0	18.8
1880-81	0	0	0	0	0.4	6.1	4.7	10.6	T	0	0	0	21.8
1881-82	0	0	0	0	0	0.4	4.7	7.2	0	0	0	0	12.3
1882-83	0	0	0	0	0	0	2.0	1.0	0	0	0	0	3.0
1883-84	0	0	0	0	0	0	7.0	18.5	0	0	0	0	25.5
1884-85	0	0	0	0	0	34.1	1.0	0	0	0	0	0	35.1
1885-86	0	0	0	0	0	0	9.3	0	0	0	0	0	9.3
1886-87	0	0	0	0	0	0	12.3	18.9	T	0	0	0	31.2
1887-88	0	0	0	0	2.0	T	12.0	0	0	0	0	0	14.0
1888-89	0	0	0	0	0	0	0.3	1.0	0	0	0	0	1.3
1889-90	0	0	0	0	0	5.9	35.3	0.4	T	T	0	0	41.6
1890-91	0	0	0	0	0	0	0	11.4	1.6	0	0	0	13.0
1891-92	0	0	0	0	0	0.7	0	0	0	0	0	0	0.7
1892-93	0	0	0	0	0	29.0	11.8	20.0	0.1	0	0	0	60.9
1893-94	0	0	0	0	T	0	4.1	10.0	2.4	0	0	0	16.5
1894-95	0	0	0	0	0	1.0	20.4	1.5	T	0.1	0	0	23.0
1895-96	0	0	0	0	0	1.1	6.0	0.8	1.2	0	0	0	9.1
1896-97	0	0	0	0	2.0	0	1.8	T	5.0	0	0	0	8.8
1897-98	0	0	0	0	3.0	0.2	1.8	T	1.5	0	0	0	6.5
1898-99	0	0	0	0	0.3	5.7	11.6	5.8	0.4	0	0	0	23.8
1899-1900	0	0	0	0	0	0	0	1.4	0	0	0	0	1.4
1900-01	0	0	0	0	0	0	15.7	T	0	0.2	0	0	15.9
1901-02	0	0	0	0	0	T	6.8	0.4	T	T	0	0	7.2
1902-03	0	0	0	0	0	0.7	0.8	0.6	2.6	0.2	0	0	4.9
1903-04	0	0	0	0	0	0	0.9	1.5	T	T	0	0	2.4
1904-05	0	0	0	0	0	T	2.5	0.1	T	0	0	0	2.6
1905-06	0	0	0	0	T	T	T	0	4.0	0	0	0	4.0
1906-07	0	0	0	0	0	0	3.0	3.5	T	0	0	0	6.5
1907-08	0	0	0	0	0	0.1	T	1.8	0	0	0	0	1.9
1908-09	0	0	0	0	0	0.7	15.1	0	0	T	0	0	15.8
1909-10	0	0	0	0	0	10.3	2.1	2.1	0	0	0	0	14.5
1910-11	0	0	0	0	0	0	5.1	0.2	0	T	0	0	5.3
1911-12	0	0	0	0	2.2	T	7.9	0	T	T	0	0	10.1
1912-13	0	0	0	0	0	T	11.3	T	1.2	0	0	0	12.5
1913-14	0	0	0	0	0	T	1.5	T	0	0	0	0	1.5

SNOWFALL

Season	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
1914-15	0	0	0	0	0	T	T	0	0	0	0	0	T
1915-16	0	0	0	0	0	T	32.9	8.2	1.9	0	0	0	43.0
1916-17	0	0	0	0	0	1.6	4.5	13.3	0.2	0	0	0	19.6
1917-18	0	0	0	0	0	0	0	6.6	T	0	0	0	6.6
1918-19	0	0	0	0	0	0	0	T	0	0	0	0	T
1919-20	0	0	0	0	0	17.5	T	T	1.5	T	0	0	19.0
1920-21	0	0	0	0	T	0.1	0.7	2.4	T	T	0	0	3.2
1921-22	0	0	0	0	0	4.3	1.7	T	T	T	T	0	6.0
1922-23	0	0	0	0	T	7.9	1.0	13.3	T	0	0	0	22.2
1923-24	0	0	0	0	0	0.1	4.8	0	T	0.1	0	0	5.0
1924-25	0	0	0	0	0	3.7	T	0	0	0	0	0	3.7
1925-26	0	0	0	0	0	0	0	0	0	0	0	0	0
1926-27	0	0	0	0	0	4.2	16.2	0	0	T	0	0	20.4
1927-28	0	0	0	0	0	2.3	2.0	T	0	T	0	0	4.3
1928-29	0	0	0	0	0	0.2	13.2	T	0.2	T	T	0	13.6
1929-30	0	0	0	0	0	T	16.4	T	0	0	0	0	16.4
1930-31	0	0	0	0	0	T	0	0	T	0	0	0	T
1931-32	0	0	0	0	0	1.0	9.8	4.3	T	0	0	0	15.1
1932-33	0	0	0	0	0	1.2	8.7	2.4	T	1.7	0	0	14.0
1933-34	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1
1934-35	0	0	0	0	0	T	6.7	0	T	0	0	0	6.7
1935-36	0	0	0	0.6	0	0	0	3.3	1.6	5.2	0	0	10.7
1936-37	0	0	0	0	0	0.5	18.0	15.9	0	0	0	0	34.3
1937-38	0	0	0	0	0	2.4	0.9	1.4	0.7	0	0	0	5.4
1938-39	0	0	0	0	T	0.6	T	5.4	T	0	0	0	6.0
1939-40	0	0	0	0	0	0	T	0	0	0	0	0	T
1940-41	0	0	0	0	0	0	T	0	0	0	0	0	T
1941-42	0	0	0	0	0	T	0.5	T	0	0	0	0	0.5
1942-43	0	0	0	0	0	2.0	17.3	T	T	0	0	0	19.3
1943-44	0	0	0	0	0	0	0.2	0	0	0	0	0	0.2
1944-45	0	0	0	0	0	0	0	0	T	0	0	0	T
1945-46	0	0	0	0	0	0	T	T	0.6	0	0	0	0.6
1946-47	0	0	0	0	0.5	0	2.0	0	0	0	0	0	2.5
1947-48	0	0	0	0	0	0	0.9	0.3	T	T	0	0	1.2
1948-49	0	0	0	0	0	T	9.8	13.2	0	0	0	0	23.0
1949-50	0	0	T	0	0	0.2	41.4	2.1	0.8	0	T	0	44.5
1950-51	0	0	0	0.2	0	0	0.2	T	12.9	0	0	0	13.3
1951-52	0	0	0	0	0	0.7	8.9	T	T	T	0	0	9.6
1952-53	0	0	0	0	T	T	T	T	T	0	0.6	0	0.6
1953-54	0	0	0	0	T	T	10.6	0	T	T	0	0	10.6
1954-55	0	0	0	0	0	1.2	1.1	1.3	0.8	T	T	0	4.4
1955-56	0	0	0	T	8.2	2.0	9.3	1.1	1.8	0	0	0	22.4
1956-57	0	0	0	0	0	2.6	4.2	1.4	T	0	0	0	8.2
1957-58	0	0	0	0	0	T	0	0	0	0	0	0	T
1958-59	0	0	0	0	T	0	0.9	2.0	T	0	0	0	2.9



SNOWFALL

Season	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
1959-60	0	0	0	0	0	T	10.3	T	2.6	0	T	0	12.9
1960-61	0	0	0	0	0	0	0	T	T	T	0	0	T
1961-62	0	0	0	0	0	1.0	0.7	3.8	0.1	0	0	0	5.6
1962-63	0	0	0	0	0	0	5.0	0	0	T	0	0	5.0
1963-64	0	0	0	0	T	0	T	0	T	0	0	0	T
1964-65	0	0	0	0	T	11.0	T	0	0.3	0	T	0	11.3
1965-66	0	0	0	0	0	T	T	T	0.6	0	0	0	0.6
1966-67	0	0	0	0	0	0	T	T	T	T	0	0	T
1967-68	0	0	0	0	0	5.7	5.2	0	0	T	0	0	10.9
1968-69	0	0	0	0	0	15.7	18.3	T	0	0	0	0	34.0
1969-70	0	0	0	0	0	0	T	T	T	T	0	0	T
1970-71	0	0	0	0	T	1.4	6.9	1.7	T	T	0	0	10.0
1971-72	0	0	0	T	0	4.6	0.4	T	T	T	0	0	5.0
1972-73	0	0	0	0	0	6.1	0.4	T	T	T	0	0	6.5
1973-74	0	0	0	0	T	0	T	T	T	0	T	0	T
1974-75	0	0	0	0	0	T	T	0.1	T	T	T	0	0.1
1975-76	0	0	0	0	T	T	T	T	T	T	T	0	T
1976-77	0	0	0	0	0	0	T	0	T	0	T	0	T
1977-78	0	0	0	0	7.6	T	0	0	0.1	T	T	0	7.7
1978-79	0	0	0	0	3.0	2.4	1.9	1.1	T	T	0	0	8.4
1979-80	0	0	0	0	0	T	12.4	T	T	T	0	T	12.4
1980-81	0	0	0	0	T	T	0	T	T	T	T	T	T
1981-82	0	0	0	0	0	2.0	2.1	T	T	T	0	0	4.1
1982-83	0	0	0	T	T	0	0	0	T	T	T	0	T
1983-84	0	0	0	0	0	2.3	0.1	T	T	0	T	0	2.4
1984-85	0	0	0	T	0	2.8	T	4.8	T	T	0	0	7.6
1985-86	0	0	0	0	3.4	1.6	T	5.8	T	T	T	0	10.8
1986-87	0	0	0	0	T	0.1	0	T	T	T	T	0	0.1
1987-88	0	0	0	0	0	2.9	0.6	0	0	T	T	0	3.5
1988-89	0	0	0	0	T	T	0.9	0.3	2.0	T	0	0	3.2
1989-90	0	T	0	T	0	0	T	8.3	T	0	0	0	8.3
1990-91	0	0	0	0	0	1.3	0.6	0	T	T	0	0	1.9
1991-92	0	0	0	0	T	0	0	0	0	T	0	0	T
1992-93	0	0	0	0	T	4.6	2.9	6.6	0	T	T	0	14.1
1993-94	0	0	0	0	T	T	0	2.6	T	T	0	T	2.6
1994-95	0	0	0	0	0.3	1.1	T	3.6	0.4	T	0	0	5.4
1995-96	0	0	0	0	0	T							
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
NORMAL	0	T	T	T	0.4	1.4	3.3	1.0	0.4	T	T	T	6.6
Years marked with * are 19xx													
MAX YEAR	0	T	T	0.6	8.2	17.5	41.4	15.9	12.9	5.2	0.6	T	44.5
	—	'89	'49	1935	1955	1919	1950	1937	1951	1936	'53	'94	'49-50

SNOWFALL EXTREMES

SNOWFALL EXTREMES

Month	1871-1940						1941-1995					
	Greatest 24-Hour Snowfall			Greatest Daily Snow Depth			Greatest 24-Hour Snowfall			Greatest Daily Snow Depth		
	Amt	Days	Year	Amt	Days	Year	Amt	Days	Year	Amt	Days	Year
January	16.0	31-1	1937	22.0	3rd	1895	10.6	13-14	1950	15.0	31st	1950
February	11.3	13-14	1923	16.0	1st	1937	6.4	18-19	1993	14.0	1st	1950
March	4.0	18th	1906	2.0	18th	1906	7.7	7-8	1951	5.0	8th	1951
April	5.2	1st	1936	2.9	1st	1936	Trace <sup>1</sup>	18th	1995	Trace	9th	1980
May	-	-	-	-	-	-	0.5	8th	1953	-	-	-
June	-	-	-	-	-	-	Trace <sup>1</sup>	6th	1994	-	-	-
July	-	-	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	Trace <sup>1</sup>	22nd	1989	-	-	-
September	-	-	-	-	-	-	Trace <sup>1</sup>		1949	-	-	-
October	0.6	29th	1935	0.1	29th	1935	0.2 <sup>1</sup>	5th	1950	Trace	13th	1984
November	3.0	19th	1897	0.8	10th	1911	7.4	21-22	1977	5.0	23rd	1977
December	14.0	22nd	1892	13.7	10th	1919	8.0	19th	1964	11.0	20th	1964
<b>Greatest</b>	<b>16.0</b>	<b>Jan 31-Feb 1</b>	<b>1937</b>	<b>22.0</b>	<b>January 3</b>	<b>1898</b>	<b>10.6</b>	<b>Jan. 13-14</b>	<b>1950</b>	<b>15.0</b>	<b>January 31</b>	<b>1950</b>

**MOST CONSECUTIVE DAYS WITH SNOW ON THE GROUND OF...**  
**(1950-1995)**

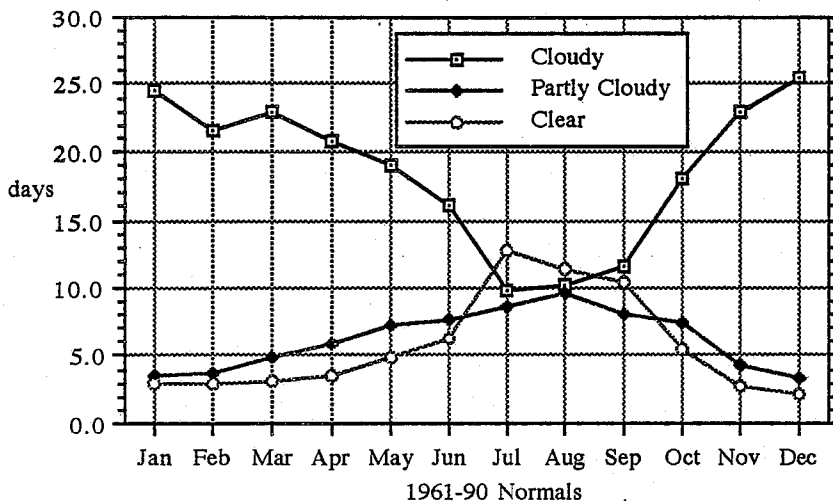
Accumulation	Days	Dates	Daily Snow Depth (inches)
<b>1 Inch or More Accumulation</b>	28 days	Jan 12-Feb 12, 1950	7/8/7/8/8/8/13/12/8/6/4/5/4/ 6/11/12/12/15/15/14/13/13/ 14/13/9/6/3/2
	12 days	Jan 27-Feb 8, 1956	9/6/3/2/2/1/1/1/1/1/1
	10 days	Dec 29, 1968-Jan 7, 1969	1/5/9/9/7/7/7/5/4/1
	8 days	Jan 26-Feb 3, 1969	4/8/6/6/10/8/5/3
	6 days	January 3-7, 1952	1/5/4/5/4/1
	5 days	January 8-14, 1980	2/5/10/7/2
	5 days	January 19-26, 1960	4/5/5/2/1
	3-4 days occurred often, especially in the 1960s.		
<b>6 Inches or More Accumulation</b>	13 days	Jan 26-Feb 7, 1950	6/11/12/12/15/15/14/13/13/ 14/13/9/6
	10 days	January 13-22, 1950	7/8/7/8/8/8/13/12/8/6
	5 days	Dec 31, 1968-Jan 4, 1969	9/9/7/7/7
	2 days	January 10-11, 1980	10/7
	2 days	December 19-20, 1964	11/7
	2 days	January 27-28, 1956	11/7
<b>12 Inches or More Accumulation</b>	9 days	Jan 28-Feb 5 1950	12/12/15/15/14/13/13/14/13
	2 days	January 19-20, 1950	13/12

<sup>1</sup>Precipitation fell as hail.

## **SUNSHINE AND CLOUD DATA**

**DAYS CLOUDY, PARTLY CLOUDY, AND CLEAR**

**NUMBER OF DAYS CLOUDY, PARTLY CLOUDY, AND CLEAR**



**AVERAGE DAYS CLEAR/PARTLY CLOUDY/CLOUDY\***

MONTH	CLR	P.C.	CLDY	MONTH	CLR	P.C.	CLDY
JANUARY	2.9	3.6	24.5	JULY	12.7	8.6	9.8
FEBRUARY	2.9	3.8	21.6	AUGUST	11.4	9.6	10.1
MARCH	3.2	4.9	22.9	SEPTEMBER	10.3	8.1	11.6
APRIL	3.5	5.8	20.7	OCTOBER	5.5	7.5	18.0
MAY	4.9	7.2	19.0	NOVEMBER	2.8	4.3	22.9
JUNE	6.2	7.7	16.1	DECEMBER	2.1	3.3	25.5
				<u>ANNUALLY</u>	<u>68.3</u>	<u>74.3</u>	<u>222.7</u>

TERMINOLOGY: CLEAR = 0.0 to 0.3 cloud cover, PARTLY CLOUDY = 0.4 to 0.7 cloud cover, CLOUDY = 0.8 to 1.0 cloud cover.

NOTE: Values based on 1961-90 Normals.

**LONGEST PERIODS WITH CONSECUTIVE DAYS WITH...**  
(1949-1995)

CLOUDY SKIES:	61 days	December 1, 1966-January 30, 1967
	54 days	February 1-March 26, 1961
	38 days	November 4-December 11, 1953
	35 days	January 5-February 8, 1953
	35 days	January 3-February 6, 1952
	35 days	December 2, 1950-January 5, 1951
	34 days	December 14, 1989-January 16, 1990
	34 days	January 16-February 18, 1978
CLEAR DAYS:	12 days	August 23-September, 3 1972
	11 days	July 16-26, 1988
	11 days	July 14-24, 1960
	11 days	July 15-25, 1956
	10 days	July 25-August 3, 1966
	9 days	Occurs frequently

FOG**DAYS WITH DENSE FOG**  
(Visibility 1/4 mile or less)

<u>Month</u>	<u>Normals</u>	<u>Greatest</u>	<u>Year</u>
January	4.3 days	11 days	1963
February	3.7 days	9 days	1988
March	2.4 days	6 days	1981
April	1.1 days	4 days	1979
May	0.2 days	2 days	1965
June	0.1 day	1 day	1985
July	0.1 day	1 day	1983
August	0.2 day	4 days	1984
September	2.7 days	10 days	1950
October	7.2 days	16 days	1949
November	6.1 days	18 days	1976
December	4.9 days	17 days	1976
Annually	32.9 days	63 days	1976

NOTE: Normals based on 1961-90 data and greatest values are for period of record 1911-1995.  
Most recent occurrence listed.

**MOST CONSECUTIVE DAYS WITH...**  
(1949-1995)

**DENSE FOG:**  
(visibility 1/4 mile or less)

10 days	October 14-23, 1986
8 days	October 18-25, 1949
7 days	February 12-18, 1985
5 days	November 7-11, 1993
5 days	December 16-20, 1993
4 days	January 16-19, 1991
4 days	December 5-8, 1984

3 days are common, especially in October through December.

**ALL FOG:**  
(no visibility restrictions)

20 days	October 13-November 1, 1983
17 days	November 5-21, 1993
15 days	December 29, 1983-January 13, 1984
14 days	November 21-December 4, 1995
13 days	December 19-31, 1989
11 days	November 28-December 8, 1959
10 days*	November 10-19, 1995
9 days*	October 18-26, 1988
8 days*	February 11-18, 1985
7 days	December 9-15, 1995

6 days are common, especially October through December.

\* Has occurred frequently, most recent occurrence is listed.

MONTHLY SUNSHINE

MONTHLY PERCENTAGE OF POSSIBLE SUNSHINE RECEIVED IN  
PORTLAND (1891-1995)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Ann
OFFICIAL RECORDS START JANUARY 1, 1891													
1891	34	24	32	24	54	31	72	65	47	43	20	17	39
1892	22	35	40	30	56	52	58	59	39	47	31	33	42
1893	38	18	30	22	38	42	72	66	37	44	31	16	38
1894	16	23	24	37	45	34	79	72	44	30	28	43	39
1895	23	38	48	57	44	73	71	93	48	66	31	13	48
1896	26	30	44	30	34	62	87	44	63	59	23	13	42
1897	24	25	27	65	61	45	69	82	45	58	23	28	49
1898	31	27	54	56	56	66	74	62	59	41	20	32	51
1899	8	22	39	41	24	55	70	38	60	33	19	23	36
1900	34	22	47	47	32	44	62	52	49	29	32	14	39
1901	23	31	38	51	46	40	66	72	48	43	13	13	40
1902	27	14	22	33	34	62	74	79	62	47	20	23	41
1903	29	52	48	49	53	54	65	63	62	47	20	34	48
1904	17	29	23	49	58	73	63	67	55	46	16	23	43
1905	33	56	41	66	40	48	83	71	49	45	38	8	48
1906	17	49	48	63	54	50	81	63	43	39	22	17	45
1907	28	35	27	57	62	63	79	67	66	49	47	28	51
1908	42	28	37	58	43	60	79	67	56	36	37	22	47
1909	17	20	50	51	48	69	58	78	64	43	17	36	46
1910	15	20	53	55	63	56	76	53	39	27	12	19	41
1911	11	40	57	54	32	51	70	60	29	44	19	17	40
1912	20	34	49	21	56	55	52	44	52	32	17	17	37
1913	14	46	29	39	50	44	55	63	64	39	21	30	41
1914	9	26	41	44	62	44	72	69	29	35	22	35	41
1915	30	29	47	57	37	61	55	75	35	35	6	15	38
1916	11	37	24	50	38	48	50	66	54	63	35	15	41
1917	31	27	32	21	26	63	80	72	37	60	46	4	42
1918	16	31	37	65	59	76	69	54	75	43	29	30	49
1919	40	29	48	44	60	69	78	72	60	40	33	50	52
1920	52	63	33	45	76	60	68	74	44	29	55	20	52
1921	26	31	43	51	68	62	81	75	66	48	20	28	50
1922	30	47	45	53	64	76	81	74	64	34	42	17	53
1923	19	47	63	70	67	54	60	73	63	50	42	19	53
1924	25	25	41	59	63	62	80	63	64	32	32	32	47
1925	18	25	38	52	62	70	83	70	54	52	22	42	49
1926	50	33	64	64	45	70	79	60	55	36	17	11	49
1927	18	33	37	56	33	40	65	69	42	32	5	20	38
1928	19	40	32	39	71	38	62	60	45	29	22	31	41
1929	29	48	34	37	53	50	79	73	76	60	48	18	50
1930	39	31	63	45	48	58	71	69	49	49	40	30	49
1931	30	33	34	62	69	56	83	81	47	45	39	20	50
1932	22	32	28	48	47	72	69	62	80	34	18	37	46

MONTHLY SUNSHINE

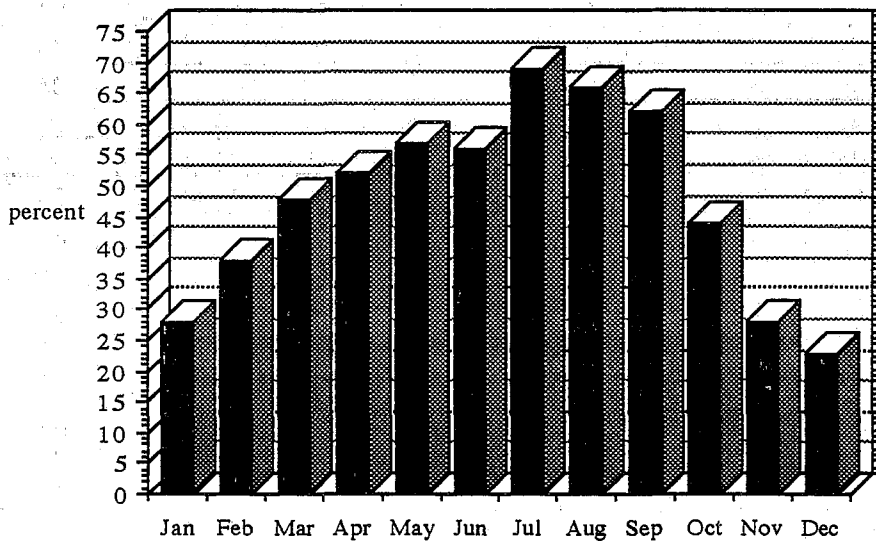
MONTHLY PERCENTAGE OF POSSIBLE SUNSHINE (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1933	13	16	28	57	36	58	83	71	42	45	23	4	40
1934	18	41	54	60	49	62	63	67	53	37	13	24	45
1935	27	42	37	62	73	61	64	74	71	40	45	42	54
1936	31	28	39	48	58	55	74	74	69	63	64	6	51
1937	42	26	37	36	64	56	74	68	58	50	20	29	47
1938	30	34	42	62	73	73	80	69	63	45	35	31	53
1939	24	31	58	62	64	55	76	68	62	40	38	14	49
1940	32	22	42	41	68	77	61	79	42	29	27	32	46
1941	33	48	64	55	47	43	76	43	33	39	27	28	45
1942	39	30	52	50	43	48	61	59	64	47	24	7	44
1943	44	58	35	58	53	49	70	62	76	31	44	49	52
Sunshine observations at downtown office cease during January 1944.													
Observations resume on January 1, 1951 at the new office location on Marine Drive.													
1951	33	38	35	65	47	69	71	70	67	35	22	28	51
1952	26	41	40	68	58	48	79	59	73	63	48	21	54
1953	15	35	32	29	31	27	73	43	55	41	12	13	36
1954	21	46	57	57	58	40	58	40	46	41	18	14	43
1955	16	27	30	24	38	36	38	75	56	28	14	22	36
1956	15	15	29	63	55	37	64	52	50	14	40	12	40
1957	32	36	20	37	36	53	71	57	74	42	39	21	46
1958	27	28	41	48	66	44	76	82	53	61	26	24	51
1959	20	20	34	50	42	36	73	62	36	37	46	36	43
1960	13	37	31	34	35	70	80	53	58	41	39	31	46
1961	37	7	35	41	48	75	74	66	58	42	54	19	48
1962	30	36	32	45	27	63	68	53	53	36	20	25	43
1963	45	26	30	22	56	43	41	51	60	27	23	27	39
1964	18	48	38	43	52	46	64	60	54	49	20	24	45
1965	28	39	73	52	63	66	80	71	65	40	25	23	55
1966	19	41	49	61	60	48	59	70	54	38	19	9	47
1967	16	43	48	45	59	59	82	81	72	37	39	22	54
1968	28	63	46	52	56	59	67	49	50	35	24	11	47
1969	28	50	74	59	62	52	69	75	58	44	37	17	55
1970	17	58	59	44	68	68	79	76	55	59	21	10	55
1971	8	28	46	59	58	54	72	76	65	43	11	9	48
1972	24	27	45	55	70	66	81	79	55	51	25	26	54
1973	33	52	53	67	63	48	78	62	60	38	14	15	52
1974	32	19	40	33	42	63	59	65	77	61	25	17	47
1975	22	31	61	54	67	58	67	56	81	22	20	22	50
1976	30	46	68	63	62	62	72	53	62	55	47	23	56
1977	51	44	42	76	64	65	58	68	53	56	44	29	56
1978	29	50	79	70	68	72	72	72	53	69	42	30	62
1979	39	18	56	55	82	82	84	77	77	49	50	46	63
1980	56	61	37	59	56	56	74	59	70	53	22	24	55
1981	48	49	73	75	75	64	74	72	71	43	33	8	60

MONTHLY SUNSHINE

MONTHLY PERCENTAGE OF POSSIBLE SUNSHINE (cont.)													
Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Ann
1982	7	28	62	61	65	59	64	67	59	44	37	28	52
1983	25	37	41	69	67	65	66	73	77	49	14	11	53
1984	30	34	49	49	65	69	88	89	71	27	16	22	55
1985	50	36	67	60	59	73	85	76	53	39	24	60	59
1986	38	35	51	41	51	62	56	78	49	49	26	47	50
1987	53	63	49	70	75	88	78	78	66	68	29	19	64
1988	24	46	50	47	53	61	71	71	70	42	21	35	52
1989	25	43	52	67	67	67	53	50	78	44	25	19	52
1990	17	32	46	38	33	44	67	64	56	34	23	26	42
1991	35	40	43	39	40	38	73	61	79	62	17	13	47
1992	24	38	66	48	79	69	65	73	57	44	25	17	54
1993	39	60	55	45	54	50	34	63	76	46	45	32	50
1994	32	33	55	40	49	47	71	65	62	50	17	29	48
1995	36	50	49	41	58	52	59	61	53	46	**	**	**
AVERAGE Percentage of Possible Sunshine Received in Portland (1891-1943, 1951-September 1995)													
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANN
AVG	27	36	44	52	54	57	70	66	57	43	28	23	48
NORMAL Percentage of Possible Sunshine Received in Portland (based on 1961-90 data)													
AVG	28	38	48	52	57	56	69	66	62	44	28	23	48

\*\*Sunshine data not available.

**NORMAL PERCENTAGE OF POSSIBLE SUNSHINE RECEIVED AT PORTLAND**  
(based on 1961-90 data)





SUNNIEST/CLOUDIEST MONTHS

**MONTHLY and ANNUAL PERCENTAGE OF POSSIBLE SUNSHINE  
RECEIVED AT PORTLAND**

**FIVE LEAST AND MOST SUNNY\***

	MOST		LEAST			MOST		LEAST	
JANUARY	56%	1980	7%	1982	FEBRUARY	63%	1987	7%	1961
	53	1987	8	1971		61	1980	14	1902
	52	1920	9	1914		60	1993	15	1956
	51	1977	11	1916		58	1970	16	1933
	50	1985	13	1960		56	1905	18	1979
	AVERAGE (1961-90)		28%			AVERAGE (1961-90)		38%	
MARCH	79%	1978	20%	1957	APRIL	76%	1977	21%	1917
	74	1969	22	1902		75	1981	22	1963
	73	1981	23	1904		70	1987	24	1955
	68	1976	24	1916		69	1983	29	1953
	67	1985	27	1907		68	1952	30	1896
	AVERAGE (1961-90)		48%			AVERAGE (1961-90)		52%	
MAY	82%	1979	24%	1899	JUNE	88%	1987	27%	1953
	79	1992	26	1917		82	1979	31	1891
	76	1920	27	1962		77	1940	34	1894
	75	1987	31	1953		76	1922	36	1959
	73	1938	32	1911		75	1961	37	1956
	AVERAGE (1961-90)		57%			AVERAGE (1961-90)		56%	
JULY	88%	1984	34%	1993	AUGUST	93%	1895	38%	1899
	87	1896	38	1955		89	1984	40	1954
	85	1985	41	1963		82	1958	43	1953
	84	1979	50	1916		81	1967	44	1912
	83	1933	52	1912		79	1972	49	1968
	AVERAGE (1961-90)		69%			AVERAGE (1961-90)		66%	
SEPTEMBER	81%	1975	29%	1914	OCTOBER	69%	1978	14%	1956
	80	1932	33	1941		68	1987	22	1975
	79	1991	35	1915		66	1895	27	1984
	78	1989	36	1959		63	1952	28	1955
	77	1983	37	1917		62	1991	29	1940
	AVERAGE (1961-90)		62%			AVERAGE (1961-90)		44%	
NOVEMBER	64%	1936	5%	1927	DECEMBER	60%	1985	4%	1933
	55	1920	6	1915		50	1919	6	1936
	54	1961	11	1971		49	1943	7	1942
	50	1979	12	1953		47	1986	8	1981
	48	1952	13	1934		46	1979	9	1971
	AVERAGE (1961-90)		28%			AVERAGE (1961-90)		23%	

ANNUALLY	MOST SUNNY YEARS		LEAST SUNNY YEARS	
	64%	1987	36%	1955
AVERAGE (1961-90)	63	1979	37	1912
48%	62	1978	38	1927
	60	1981	39	1963
	59	1985	40	1956

\*Some months of different years may have same percentage. In this case the most recent occurrence is listed.

# SUNRISE AND SUNSET

## WSFO PORTLAND OREGON

### SUNRISE AND SUNSET TIMES FOR THE YEAR 1996

Calculated for the location at latitude = 45 deg 36 min N, longitude = 122 deg 36 min W  
 Local standard times are listed. Add +8 hours to convert to UTC. Add 1 hour to convert to daylight savings time when it is in use.

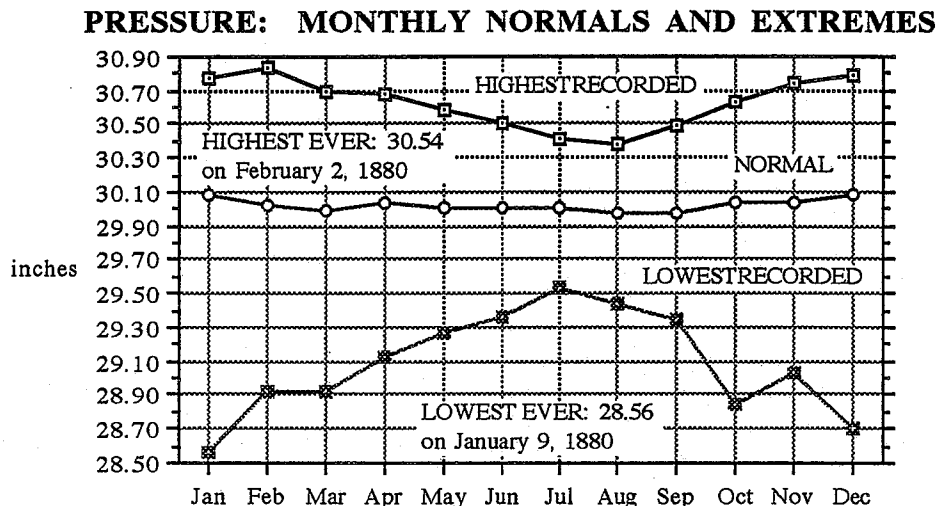
DAY	JAN SR - SS	FEB SR - SS	MAR SR - SS	APR SR - SS	MAY SR - SS	JUN SR - SS	JUL SR - SS	AUG SR - SS	SEP SR - SS	OCT SR - SS	NOV SR - SS	DEC SR - SS
01	0751-1636	0732-1715	0648-1756	0550-1838	0458-1917	0425-1952	0426-2003	0455-1939	0532-1849	0609-1752	0651-1658	0731-1629
02	0751-1637	0731-1716	0646-1758	0548-1839	0456-1918	0424-1953	0426-2003	0456-1938	0533-1847	0610-1750	0652-1657	0732-1628
03	0751-1638	0730-1718	0644-1759	0546-1841	0455-1919	0424-1953	0427-2003	0457-1937	0535-1845	0612-1748	0654-1655	0733-1628
04	0751-1639	0728-1719	0643-1801	0544-1842	0453-1921	0423-1954	0427-2002	0458-1935	0536-1843	0613-1746	0655-1654	0734-1628
05	0751-1640	0727-1721	0641-1802	0542-1843	0452-1922	0423-1955	0428-2002	0459-1934	0537-1842	0614-1744	0656-1653	0735-1627
06	0750-1641	0726-1722	0639-1803	0540-1844	0451-1923	0422-1956	0429-2002	0500-1932	0538-1840	0616-1742	0658-1651	0736-1627
07	0750-1642	0725-1723	0637-1805	0539-1846	0449-1924	0422-1956	0430-2001	0502-1931	0539-1838	0617-1740	0659-1650	0737-1627
08	0750-1643	0723-1725	0635-1806	0537-1847	0448-1926	0422-1957	0430-2001	0503-1930	0541-1836	0618-1739	0701-1649	0738-1627
09	0750-1644	0722-1726	0633-1807	0535-1848	0447-1927	0422-1958	0431-2000	0504-1928	0542-1834	0620-1737	0702-1647	0739-1627
10	0749-1645	0720-1728	0631-1809	0533-1850	0445-1928	0421-1958	0432-2000	0505-1927	0543-1832	0621-1735	0703-1646	0740-1627
11	0749-1646	0719-1729	0630-1810	0531-1851	0444-1929	0421-1959	0433-1959	0506-1925	0544-1830	0622-1733	0705-1645	0741-1627
12	0749-1648	0717-1731	0628-1812	0529-1852	0443-1930	0421-1959	0434-1959	0508-1923	0546-1828	0623-1731	0706-1644	0742-1627
13	0748-1649	0716-1732	0626-1813	0528-1854	0442-1932	0421-2000	0435-1958	0509-1922	0547-1826	0625-1729	0708-1643	0743-1627
14	0748-1650	0714-1734	0624-1814	0526-1855	0440-1933	0421-2001	0435-1957	0510-1920	0548-1824	0626-1728	0709-1642	0744-1627
15	0747-1651	0713-1735	0622-1816	0524-1856	0439-1934	0421-2001	0436-1957	0511-1919	0549-1823	0627-1726	0710-1641	0744-1627
16	0747-1653	0711-1737	0620-1817	0522-1857	0438-1935	0421-2001	0437-1956	0513-1917	0551-1821	0629-1724	0712-1640	0745-1628
17	0746-1654	0710-1738	0618-1818	0521-1859	0437-1936	0421-2002	0438-1955	0514-1915	0552-1819	0630-1722	0713-1639	0746-1628
18	0745-1655	0708-1739	0616-1820	0519-1900	0436-1937	0421-2002	0439-1954	0515-1914	0553-1817	0631-1721	0715-1638	0746-1628
19	0745-1656	0707-1741	0614-1821	0517-1901	0435-1939	0421-2002	0440-1953	0516-1912	0554-1815	0633-1719	0716-1637	0747-1628
20	0744-1658	0705-1742	0613-1822	0515-1903	0434-1940	0421-2003	0441-1952	0517-1910	0555-1813	0634-1717	0717-1636	0747-1629
21	0743-1659	0703-1744	0611-1824	0514-1904	0433-1941	0422-2003	0442-1951	0519-1909	0557-1811	0636-1715	0719-1635	0748-1629
22	0742-1701	0702-1745	0609-1825	0512-1905	0432-1942	0422-2003	0443-1951	0520-1907	0558-1809	0637-1714	0720-1634	0748-1630
23	0741-1702	0700-1747	0607-1826	0510-1906	0431-1943	0422-2003	0444-1950	0521-1905	0559-1807	0638-1712	0721-1633	0749-1630
24	0740-1703	0658-1748	0605-1827	0509-1908	0430-1944	0422-2003	0446-1949	0522-1904	0600-1805	0640-1711	0722-1633	0749-1631
25	0740-1705	0657-1749	0603-1829	0507-1909	0429-1945	0423-2003	0447-1947	0524-1902	0602-1803	0641-1709	0724-1632	0750-1632
26	0739-1706	0655-1751	0601-1830	0506-1910	0429-1946	0423-2003	0448-1946	0525-1900	0603-1801	0642-1707	0725-1631	0750-1632
27	0738-1708	0653-1752	0559-1831	0504-1912	0428-1947	0424-2003	0449-1945	0526-1858	0604-1759	0644-1706	0726-1631	0750-1633
28	0737-1709	0651-1754	0557-1833	0502-1913	0427-1948	0424-2003	0450-1944	0527-1856	0605-1757	0645-1704	0727-1630	0750-1634
29	0735-1710	0650-1755	0555-1834	0501-1914	0427-1949	0425-2003	0451-1943	0528-1855	0607-1755	0647-1703	0729-1630	0751-1634
30	0734-1712	-	0554-1835	0459-1915	0426-1950	0425-2003	0452-1942	0530-1853	0608-1754	0648-1701	0730-1629	0751-1635
31	0733-1713	-	0552-1837	-	0425-1951	-	0453-1940	0531-1851	-	0649-1700	-	0751-1636

This table was calculated using an algorithm from UNITED STATES NAVAL OBSERVATORY CIRCULAR NO. 171, Feb. 19, 1987

## **OTHER CLIMATIC DATA**

PRESSURE

**PRESSURE: MONTHLY NORMAL AND EXTREME VALUES\***



**PRESSURE: MONTHLY NORMAL AND EXTREME VALUES  
IN INCHES**

MONTH	NORMAL	HIGHEST	LOWEST
January	30.08	30.78 in 1888 & 1963	28.56 in 1880
February	30.02	30.84 in 1880	28.92 in 1958
March	29.99	30.70 in 1955	28.93 in 1904
April	30.03	30.68 in 1936	29.12 in 1958
May	30.01	30.59 in 1931	29.27 in 1906
June	30.01	30.51 in 1895	29.37 in 1907
July	30.01	30.41 in 1875 & 1944	29.54 in 1879
August	29.98	30.39 in 1876	29.44 in 1951
September	29.98	30.49 in 1937	29.35 in 1920
October	30.04	30.63 in 1932 & 1935	28.84 in 1962
November	30.04	30.74 in 1928	29.03 in 1871
December	30.08	30.79 in 1879	28.71 in 1995

<b>EXTREME RECORDS</b>	30.84 on Feb 2, 1880	28.56 in Jan 9, 1880
------------------------	----------------------	----------------------

\* Extreme values are for records from 1871 through 1995. Normals are from the 30-year values (1961-90).

## WIND DATA\*

Month	NORMALS 1961-1990		EXTREMES (1951-1995)							
	Direction	Speed	Highest Average		Fastest Mile <sup>#</sup>			Peak Wind Gust		
			Speed	Year	Direction	Speed	Year	Direction	Speed	Year
January	ESE	9.9	15.1	1995	S	54	1951	SW	63	1990
February	ESE	9.2	12.2	1993	SW	61	1958	S	68	1965
March	ESE	8.3	10.9	1956	S	57	1963	S	71	1971
April	NW	7.4	9.3	1981	S	60	1957	S	63	1972
May	NW	7.1	8.6	1963	SW	42	1960	SW	48	1971
June	NW	7.2	9.1	1974	SW	40	1958	SW	40	1994
July	NW	7.6	8.9	1962	SW	33	1983	SW	35	1983
August	NW	7.1	8.7	1966	SW	29	1961	E	38	1966
September	NW	6.5	8.0	1961	S	61	1963	SW	61	1963
October	ESE	6.5	8.4	1975	S	88	1962	S	104 <sup>%</sup>	1962
November	ESE	8.6	11.2	1979	SW	56	1961	S	71	1981
December	ESE	9.5	12.9	1977	S	57	1951	S	62	1995 <sup>+</sup>
Annual	ESE	7.9	8.8	1995	S	88	Oct. 1962	S	104	Oct. 1962

MONTHLY AND ANNUAL AVERAGE WIND SPEED: 5 WINDIEST\*  
(1951-1995)

January	15.1	1995	February	12.2	1993	March	10.9	1956
	13.5	1993		12.1	1989		10.2	1989
	12.7	1961		11.4	1982		10.1	1995
	12.2	1973		11.0	1976		9.8	1975
	12.0	1974		10.9	1976		9.7	1957
April	9.3	1981	May	8.6	1963	June	9.1	1974
	9.2	1958		8.5	1974		8.8	1979
	8.9	1993		8.4	1975		8.6	1962
	8.5	1955		8.2	1978		8.5	1977
	8.4	1980		8.1	1979		8.3	1981
July	8.9	1962	August	8.7	1966	September	8.0	1961
	8.8	1981		8.3	1975		7.9	1971
	8.7	1967		8.2	1994		7.8	1981
	8.6	1961		8.1	1963		7.7	1979
	8.5	1994		8.0	1981		7.4	1977
October	8.4	1975	November	11.2	1979	December	12.9	1977
	8.3	1957		11.0	1963		12.0	1955
	8.2	1982		10.7	1977		11.9	1972
	8.0	1963		10.4	1983		11.8	1968
	7.8	1979		10.1	1970		11.7	1964

**FIVE WINDIEST YEARS**    8.8   1995    8.5   1957    8.3   1994  
    8.6   1961    8.4   1963

\* Wind speed are in miles per hour (mph). Year of most recent occurrence listed.

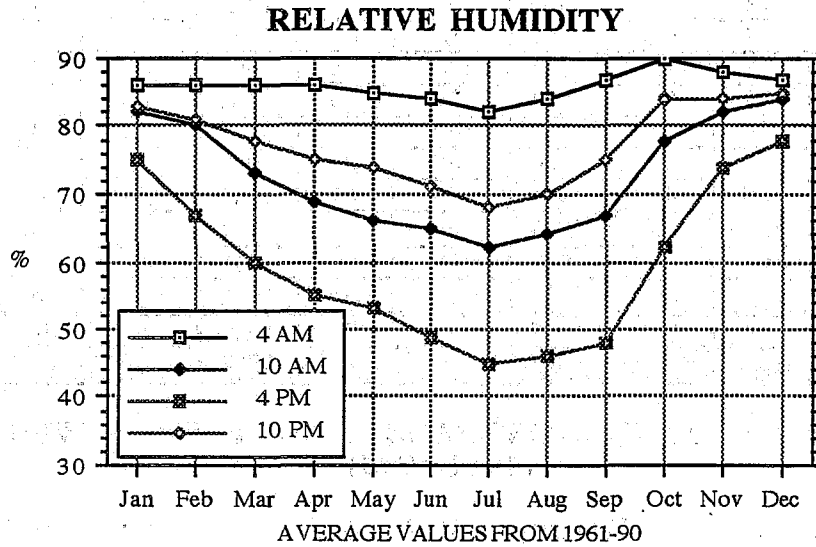
# The Fastest Mile is the speed it takes for one mile of wind to pass a given point in one minute.

% Estimated peak wind, due to breakage of wind gauge equipment during Columbus Day windstorm.

+ This peak wind gust recorded after ASOS (Automatic Surface Observation System) became operational. Unofficial peak wind from gust recorders was 74 mph.

RELATIVE HUMIDITY

**AVERAGE RELATIVE HUMIDITY BASED ON TIME OF DAY\***



**AVERAGE RELATIVE HUMIDITY**  
(in percentage)

MONTH	HOUR (LST)				MONTH	HOUR (LST)			
	0400	1000	1600	2200		0400	1000	1600	2200
JANUARY	86	82	75	83	JULY	82	62	45	68
FEBRUARY	86	80	67	81	AUGUST	84	64	46	70
MARCH	86	73	60	78	SEPTEMBER	87	67	48	75
APRIL	86	69	55	75	OCTOBER	90	78	62	84
MAY	85	66	53	74	NOVEMBER	88	82	74	84
JUNE	84	65	49	71	DECEMBER	87	84	78	85
					ANNUALLY	86	73	59	77

\* Averages based on 1961-90 data.

ROSE PARADE WEATHER

The annual Rose Parade is held in downtown Portland during early June, a time of transition from spring into summer. The weather can be cool and rainy or hot and dry.

Twenty-seven of the last 77 parade days have had measurable rainfall. The wettest parade day was June 9, 1950 when 0.57 inch fell. The next wettest was June 12, 1982 with 0.50 inch of rain.

The warmest parade day was June 15, 1963 when the mercury rose to 93 degrees while the coldest day was June 9, 1933 with a cool 57 degrees. Over the past 77 years, the average parade day temperature was 70.7 degrees.

More detailed climate data has been available since 1955. The following are some parade time averages between the years 1955-1995:

Temperature..... 63 F                      Relative Humidity..... 64%  
 Wind..... NW at 7 mph                      Probability of rain (early June)...33%  
 Cloudy days...25      Partly cloudy days...8      Sunny days...8      Rainy days...11.

Here is a detailed account of the early parade day weather history:

DATE	TEMPERATURE			RAIN inch	DATE	TEMPERATURE			RAIN inch
	HI	LO				HI	LO		
June 4 1908	64	49	0	June 9 1933	57	46	0.31		
8 1909	82	51	0	14 1934	75	53	0		
9 1910	74	48	0	7 1935	72	58	0		
8 1911	63	47	0	12 1936	78	58	0		
13 1912	66	51	0.12	11 1937	70	55	0.40		
12 1913	73	56	0.09	10 1938	82	48	0		
11 1914	77	55	0	9 1939	71	55	Trace		
10 1915	62	48	0.25	7 1940	68	54	0.03		
8 1916	66	50	0	13 1941	69	55	0		
12 1919	72	49	0.13	7 1946	70	51	0.17		
24 1920	59	45	0.11	13 1947	69	54	Trace		
13 1923	58	49	0.03	12 1948	66	56	0.19		
12 1924	72	56	0	10 1949	71	58	0		
18 1925	74	53	0	9 1950	77	53	0.57		
16 1927	70	54	0.08	8 1951	72	49	0		
13 1930	66	50	0	13 1952	69	46	0.04		
12 1931	80	53	Trace	12 1953	61	52	0.38		
17 1932	75	46	0	12 1954	65	54	0.11		

Missing years are due to no parade (such as during World War II) or incomplete data.

The next page shows continued parade weather history with more detail during the last 40 years (1955-1995).

## ROSEPARADE WEATHER

## PARADE DAY WEATHER (1955-1995)

Date	Sky Condition	Parade Temp	Afternoon High	Morning Low	Avg R.H.	Avg. Wind 10am-Noon	Rainfall (inches)
6.11.55	Mostly Cloudy	58	76	66	66%	NW 8 mph	0
6.09.56	Cloudy	66	77	56	66	E 6	0.12
6.15.57	Cloudy	58	67	50	75	NW 3	Trace
6.14.58	Cloudy	63	75	58	70	NW 10	0
6.13.59	Partly Cloudy	61	64	53	67	W 6	0
6.11.60	Cloudy	61	75	52	63	NW 9	0
6.10.61	Sunny	58	71	47	60	W 6	0.06
6.16.62	Mostly Cloudy	60	74	53	56	NW 7	0
6.15.63	Mostly Sunny	75	93	66	48	NW 4	0
6.13.64	Cloudy	62	72	55	65	NW 6	0.02
6.12.65	Partly Cloudy	57	68	45	55	W 6	0
6.11.66	Cloudy	59	66	51	77	S 8	0.04
6.10.67	Cloudy	56	66	42	80	SE 13	Trace
6.08.68	Cloudy	57	61	54	74	NW 9	0
6.14.69	Sunny	65	82	61	63	W 10	Trace
6.13.70	Cloudy	64	70	58	58	CALM	Trace
6.12.71	Cloudy	60	64	49	61	NW 3	0
6.10.72	Sunny	60	70	47	58	N 3	0
6.09.73	Mostly Cloudy	61	69	50	45	N 5	0
6.15.74	Cloudy	66	71	59	56	NW 6	0
6.14.75	Partly Cloudy	70	84	58	55	N 5	0
6.12.76	Cloudy	59	63	43	57	NW 8	0
6.11.77	Cloudy	58	65	52	70	NE 5	0
6.10.78	Cloudy	58	63	53	82	SW 12	0.24
6.09.79	Sunny	74	85	53	50	NW 8	0
6.12.80	Cloudy	60	62	56	75	SW 5	0.06
6.13.81	Mostly Cloudy	55	66	48	72	NW 10	0
6.12.82	Light Rain	55	60	55	90	S 4	0.50
6.11.83	Cloudy	60	66	53	65	S 6	0.19 evening
6.09.84	Cloudy	56	66	52	71	NW 5	0.09 am rain
6.08.85	Partly Cloudy	62	71	45	64	NW 8	0
6.07.86	Cloudy	59	69	53	75	NW 6	Trace
6.06.87	Sunny	61	75	51	64	NW 7	0
6.11.88	Sunny	59	73	46	55	W 7	0
6.10.89	Sunny	61	78	50	65	NW 4	0
6.09.90	Cloudy	59	65	58	80	NW 8	0.43
6.08.91	Partly Cloudy	65	73	54	65	NW 6	0
6.06.92	Partly Cloudy	69	82	52	55	NW 7	0
6.12.93	Partly Cloudy	59	71	51	65	NW 4	Trace
6.11.94	Partly Cloudy	63	81	58	61	W 7	0
6.10.95	Cloudy	61	64	50	72	S 8	0.10



- 141 Comparison of LFM and MFM Precipitation Guidance for Nevada During Doreen. Christopher Hill, April 1979. (PB298613/AS)
- 142 The Usefulness of Data from Mountaintop Fire Lookout Stations in Determining Atmospheric Stability. Jonathan W. Coray, April 1979. (PB298899/AS)
- 143 The Depth of the Marine Layer at San Diego as Related to Subsequent Cool Season Precipitation Episodes in Arizona. Ira S. Brenner, May 1979. (PB298817/AS)
- 144 Arizona Cool Season Climatological Surface Wind and Pressure Gradient Study. Ira S. Brenner, May 1979. (PB298900/AS)
- 146 The BART Experiment. Morris S. Webb, October 1979. (PB80 155112)
- 147 Occurrence and Distribution of Flash Floods in the Western Region. Thomas L. Dietrich, December 1979. (PB80 160344)
- 149 Misinterpretations of Precipitation Probability Forecasts. Allan H. Murphy, Sarah Lichtenstein, Baruch Fischhoff, and Robert L. Winkler, February 1980. (PB80 174576)
- 150 Annual Data and Verification Tabulation - Eastern and Central North Pacific Tropical Storms and Hurricanes 1979. Emil B. Gunther and Staff, EPHC, April 1980. (PB80 220486)
- 151 NMC Model Performance in the Northeast Pacific. James E. Overland, PMEL-ERL, April 1980. (PB80 196033)
- 152 Climate of Salt Lake City, Utah. William J. Alder, Sean T. Buchanan, William Cope (Retired), James A. Cisco, Craig C. Schmidt, Alexander R. Smith (Retired), Wilbur E. Figgins (Retired) April 1996 - Sixth Revision)
- 153 An Automatic Lightning Detection System in Northern California. James E. Rea and Chris E. Fontana, June 1980. (PB80 225592)
- 154 Regression Equation for the Peak Wind Gust 6 to 12 Hours in Advance at Great Falls During Strong Downslope Wind Storms. Michael J. Oard, July 1980. (PB91 108367)
- 155 A Raininess Index for the Arizona Monsoon. John H. Ten Harkel, July 1980. (PB81 106494)
- 156 The Effects of Terrain Distribution on Summer Thunderstorm Activity at Reno, Nevada. Christopher Dean Hill, July 1980. (PB81 102501)
- 157 An Operational Evaluation of the Scofield/Oliver Technique for Estimating Precipitation Rates from Satellite Imagery. Richard Ochoa, August 1980. (PB81 108227)
- 158 Hydrology Practicum. Thomas Dietrich, September 1980. (PB81 134033)
- 159 Tropical Cyclone Effects on California. Arnold Court, October 1980. (PB81 133779)
- 160 Eastern North Pacific Tropical Cyclone Occurrences During Intraseasonal Periods. Preston W. Leftwich and Gail M. Brown, February 1981. (PB81 205494)
- 161 Solar Radiation as a Sole Source of Energy for Photovoltaics in Las Vegas, Nevada, for July and December. Darryl Randerson, April 1981. (PB81 224503)
- 162 A Systems Approach to Real-Time Runoff Analysis with a Deterministic Rainfall-Runoff Model. Robert J.C. Burnash and R. Larry Ferral, April 1981. (PB81 224495)
- 163 A Comparison of Two Methods for Forecasting Thunderstorms at Luke Air Force Base, Arizona. LTC Keith R. Cooley, April 1981. (PB81 225393)
- 164 An Objective Aid for Forecasting Afternoon Relative Humidity Along the Washington Cascade East Slopes. Robert S. Robinson, April 1981. (PB81 23078)
- 165 Annual Data and Verification Tabulation, Eastern North Pacific Tropical Storms and Hurricanes 1980. Emil B. Gunther and Staff, May 1981. (PB82 230336)
- 166 Preliminary Estimates of Wind Power Potential at the Nevada Test Site. Howard G. Booth, June 1981. (PB82 127036)
- 167 ARAP User's Guide. Mark Mathewson, July 1981, Revised September 1981. (PB82 196783)
- 168 Forecasting the Onset of Coastal Gales Off Washington-Oregon. John R. Zimmerman and William D. Burton, August 1981. (PB82 127051)
- 169 A Statistical-Dynamical Model for Prediction of Tropical Cyclone Motion in the Eastern North Pacific Ocean. Preston W. Leftwich, Jr., October 1981. (PB822195298)
- 170 An Enhanced Plotter for Surface Airways Observations. Andrew J. Spry and Jeffrey L. Anderson, October 1981. (PB82 153883)
- 171 Verification of 72-Hour 500-MB Map-Type Predictions. R.F. Quiring, November 1981. (PB82 158098)
- 172 Forecasting Heavy Snow at Wenatchee, Washington. James W. Holcomb, December 1981. (PB82 177783)
- 173 Central San Joaquin Valley Type Maps. Thomas R. Crossan, December 1981. (PB82 196064)
- 174 ARAP Test Results. Mark A. Mathewson, December 1981. (PB82 198103)
- 176 Approximations to the Peak Surface Wind Gusts from Desert Thunderstorms. Darryl Randerson, June 1982. (PB82 253089)
- 177 Climate of Phoenix, Arizona. Robert J. Schmidli, April 1969 (Revised December 1986). (PB87 142063/AS)
- 178 Annual Data and Verification Tabulation, Eastern North Pacific Tropical Storms and Hurricanes 1982. E.B. Gunther, June 1983. (PB85 106078)
- 179 Stratified Maximum Temperature Relationships Between Sixteen Zone Stations in Arizona and Respective Key Stations. Ira S. Brenner, June 1983. (PB83 249904)
- 180 Standard Hydrologic Exchange Format (SHEF) Version I. Phillip A. Pasteris, Vernon C. Bissel, David G. Bennett, August 1983. (PB85 106052)
- 181 Quantitative and Spatial Distribution of Winter Precipitation along Utah's Wasatch Front. Lawrence B. Dunn, August 1983. (PB85 106912)
- 182 500 Millibar Sign Frequency Teleconnection Charts - Winter. Lawrence B. Dunn, December 1983. (PB85 106276)
- 183 500 Millibar Sign Frequency Teleconnection Charts - Spring. Lawrence B. Dunn, January 1984. (PB85 111367)
- 184 Collection and Use of Lightning Strike Data in the Western U.S. During Summer 1983. Glenn Rasch and Mark Mathewson, February 1984. (PB85 110534)
- 185 500 Millibar Sign Frequency Teleconnection Charts - Summer. Lawrence B. Dunn, March 1984. (PB85 111359)
- 186 Annual Data and Verification Tabulation eastern North Pacific Tropical Storms and Hurricanes 1983. E.B. Gunther, March 1984. (PB85 109635)
- 187 500 Millibar Sign Frequency Teleconnection Charts - Fall. Lawrence B. Dunn, May 1984. (PB85 110930)
- 188 The Use and Interpretation of Isentropic Analyses. Jeffrey L. Anderson, October 1984. (PB85 132694)
- 189 Annual Data & Verification Tabulation Eastern North Pacific Tropical Storms and Hurricanes 1984. E.B. Gunther and R.L. Cross, April 1985. (PB85 1878887AS)
- 190 Great Salt Lake Effect Snowfall: Some Notes and An Example. David M. Carpenter, October 1985. (PB86 119153/AS)
- 191 Large Scale Patterns Associated with Major Freeze Episodes in the Agricultural Southwest. Ronald S. Hamilton and Glenn R. Lussky, December 1985. (PB86 144474AS)
- 192 NWR Voice Synthesis Project: Phase I. Glen W. Sampson, January 1986. (PB86 145604/AS)
- 193 The MCC - An Overview and Case Study on Its Impact in the Western United States. Glenn R. Lussky, March 1986. (PB86 170651/AS)
- 194 Annual Data and Verification Tabulation Eastern North Pacific Tropical Storms and Hurricanes 1985. E.B. Gunther and R.L. Cross, March 1986. (PB86 170941/AS)
- 195 Rapid Interpretation Guidelines. Roger G. Pappas, March 1986. (PB86 177680/AS)
- 196 A Mesoscale Convective Complex Type Storm over the Desert Southwest. Darryl Randerson, April 1986. (PB86 190998/AS)
- 197 The Effects of Eastern North Pacific Tropical Cyclones on the Southwestern United States. Walter Smith, August 1986. (PB87 106258AS)
- 198 Preliminary Lightning Climatology Studies for Idaho. Christopher D. Hill, Carl J. Gorski, and Michael C. Conger, April 1987. (PB87 180196/AS)
- 199 Heavy Rains and Flooding in Montana: A Case for Slantwise Convection. Glenn R. Lussky, April 1987. (PB87 185229/AS)
- 200 Annual Data and Verification Tabulation Eastern North Pacific Tropical Storms and Hurricanes 1986. Roger L. Cross and Kenneth B. Mielke, September 1987. (PB88 110895/AS)
- 201 An Inexpensive Solution for the Mass Distribution of Satellite Images. Glen W. Sampson and George Clark, September 1987. (PB88 114038/AS)
- 202 Annual Data and Verification Tabulation Eastern North Pacific Tropical Storms and Hurricanes 1987. Roger L. Cross and Kenneth B. Mielke, September 1988. (PB88 101935/AS)
- 203 An Investigation of the 24 September 1986 "Cold Sector" Tornado Outbreak in Northern California. John P. Monteverdi and Scott A. Braun, October 1988. (PB89 121297/AS)
- 204 Preliminary Analysis of Cloud-To-Ground Lightning in the Vicinity of the Nevada Test Site. Carven Scott, November 1988. (PB89 128649/AS)
- 205 Forecast Guidelines For Fire Weather and Forecasters - How Nighttime Humidity Affects Wildland Fuels. David W. Goens, February 1989. (PB89 162549/AS)
- 206 A Collection of Papers Related to Heavy Precipitation Forecasting. Western Region Headquarters, Scientific Services Division, August 1989. (PB89 230833/AS)
- 207 The Las Vegas McCarran International Airport Microburst of August 8, 1989. Carven A. Scott, June 1990. (PB90-240268)
- 208 Meteorological Factors Contributing to the Canyon Creek Fire Blowup, September 6 and 7, 1988. David W. Goens, June 1990. (PB90-245085)
- 209 Stratus Surge Prediction Along the Central California Coast. Peter Felsch and Woodrow Whitlatch, December 1990. (PB91-129239)
- 210 Hydrotools. Tom Egger, January 1991. (PB91-151787/AS)
- 211 A Northern Utah Soaker. Mark E. Struthwolf, February 1991. (PB91-168716)
- 212 Preliminary Analysis of the San Francisco Rainfall Record: 1849-1990. Jan Null, May 1991. (PB91-208439)
- 213 Idaho Zone Preformat, Temperature Guidance, and Verification. Mark A. Molner, July 1991. (PB91-227405/AS)
- 214 Emergency Operational Meteorological Considerations During an Accidental Release of Hazardous Chemicals. Peter Mueller and Jerry Galt, August 1991. (PB91-235424)
- 215 WeatherTools. Tom Egger, October 1991. (PB93-184950)
- 216 Creating MOS Equations for RAWS Stations Using Digital Model Data. Dennis D. Gettman, December 1991. (PB92-131473/AS)
- 217 Forecasting Heavy Snow Events in Missoula, Montana. Mike Richmond, May 1992. (PB92-196104)
- 218 NWS Winter Weather Workshop in Portland, Oregon. Various Authors, December 1992. (PB93-146785)
- 219 A Case Study of the Operational Usefulness of the Sharp Workstation in Forecasting a Mesocyclone-Induced Cold Sector Tornado Event in California. John P. Monteverdi, March 1993. (PB93-178697)
- 220 Climate of Pendleton, Oregon. Claudia Bell, August 1993. (PB93-227536)
- 221 Utilization of the Bulk Richardson Number, Helicity and Sounding Modification in the Assessment of the Severe Convective Storms of 3 August 1992. Eric C. Evenson, September 1993. (PB94-131943)
- 222 Convective and Rotational Parameters Associated with Three Tornado Episodes in Northern and Central California. John P. Monteverdi and John Quadros, September 1993. (PB94-131943)
- 223 Climate of San Luis Obispo, California. Gary Ryan, February 1994. (PB94-162062)
- 224 Climate of Wenatchee, Washington. Michael W. McFarland, Roger G. Buckman, and Gregory E. Matzen, March 1994. (PB94-164308)
- 225 Climate of Santa Barbara, California. Gary Ryan, December 1994. (PB95-173720)
- 226 Climate of Yakima, Washington. Greg DeVoir, David Hogan, and Jay Neher, December 1994. (PB95-173688)
- 227 Climate of Kalispell, Montana. Chris Maier, December 1994. (PB95-169488)
- 228 Forecasting Minimum Temperatures in the Santa Maria Agricultural District. Wilfred Pi and Peter Felsch, December 1994. (PB95-171088)
- 229 The 10 February 1994 Oroville Tornado--A Case Study. Mike Staudenmaier, Jr., April 1995. (PB95-241873)
- 230 Santa Ana Winds and the Fire Outbreak of Fall 1993. Ivory Small, June 1995. (PB95-241865)
- 231 Washington State Tornadoes. Tresté Huse, July 1995. (PB96-107024)
- 232 Fog Climatology at Spokane, Washington. Paul Frisbie, July 1995. (PB96-106604)
- 233 Storm Relative Isentropic Motion Associated with Cold Fronts in Northern Utah. Kevin B. Baker, Kathleen A. Hadley, and Lawrence B. Dunn, July 1995. (PB96-106596)
- 234 Some Climatological and Synoptic Aspects of Severe Weather Development in the Northwestern United States. Eric C. Evenson and Robert H. Johns, October 1995. (PB96-112958)
- 235 Climate of Las Vegas, Nevada. Paul H. Skrbac and Scott Cordero, December 1995. (PB96-135553)
- 236 Climate of Astoria, Oregon. Mark A. McInerney, January 1996.
- 237 The 6 July 1995 Severe Weather Events in the Northwestern United States: Recent Examples of SSWEs. Eric C. Evenson, April 1996.
- 238 Significant Weather Patterns Affecting West Central Montana. Joe Lester, May 1996.

# NOAA SCIENTIFIC AND TECHNICAL PUBLICATIONS

*The National Oceanic and Atmospheric Administration* was established as part of the Department of Commerce on October 3, 1970. The mission responsibilities of NOAA are to assess the socioeconomic impact of natural and technological changes in the environment and to monitor and predict the state of the solid Earth, the oceans and their living resources, the atmosphere, and the space environment of the Earth.

The major components of NOAA regularly produce various types of scientific and technical information in the following kinds of publications.

**PROFESSIONAL PAPERS**--Important definitive research results, major techniques, and special investigations.

**CONTRACT AND GRANT REPORTS**--Reports prepared by contractors or grantees under NOAA sponsorship.

**ATLAS**--Presentation of analyzed data generally in the form of maps showing distribution of rainfall, chemical and physical conditions of oceans and atmosphere, distribution of fishes and marine mammals, ionospheric conditions, etc.

**TECHNICAL SERVICE PUBLICATIONS** -- Reports containing data, observations, instructions, etc. A partial listing includes data serials; prediction and outlook periodicals; technical manuals, training papers, planning reports, and information serials; and miscellaneous technical publications.

**TECHNICAL REPORTS**--Journal quality with extensive details, mathematical developments, or data listings.

**TECHNICAL MEMORANDUMS**--Reports of preliminary, partial, or negative research or technology results, interim instructions, and the like.



Information on availability of NOAA publications can be obtained from:

NATIONAL TECHNICAL INFORMATION SERVICE

U. S. DEPARTMENT OF COMMERCE

5285 PORT ROYAL ROAD

SPRINGFIELD, VA 22161