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CLIMATE OF FLAGSTAFF, ARIZONA

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I. CLIMATE OF FLAGSTAFF, ARIZONA

NARRATIVE GEOGRAPHICAL AND CLIMATOLOGICAL SUMMARY

Flagstaff is majestically located on a plateau in the center of the largest stand of Ponderosa Pine in the United States, at the base of the San Francisco Peaks (Arizona's highest mountains - 12,633 feet). The plateau, with an average elevation of around 7000 feet, is the southern edge of the Colorado Plateau and curves from the Grand Canyon southeastward across central Arizona and then eastward into New Mexico. Flagstaff is the hub for north-south and east-west travel across northern Arizona, and is the 'gateway' to numerous recreational areas in Arizona, including the Grand Canyon.

Flagstaff's elevation of 7000 feet ensures a variety of weather including cold winters and mild pleasant summers, moderate humidity, and considerable diurnal temperature changes. Only limited farming is carried on because of the shortness of the growing season, even though the average precipitation for Flagstaff is 22.91 inches. The average date of the last occurrence of 32^0F in the spring is June 10 and that of the first 32^0F temperature in the fall is September 21. However, the summers in Flagstaff are one of its best kept secrets with an average maximum temperature in July of 82.2^0F, and an all-time record high of 97^0F. On average, only four days in the summer have maximum temperatures of 90^0F or higher. Summer minimum temperatures are cool and refreshing with temperatures often dipping into the 40s with an occasional night in the 30s.

The moderate summer heat gives way to a cooler but nonetheless pleasant fall period with maximum temperatures generally in the 60s with minimum temperatures falling below freezing. Winter weather typically begins by November and becomes well entrenched by December, with frequent light to moderate snows and increasingly colder weather. By December, minimum temperatures are generally in the teens; however afternoon maximum temperatures still average in the 40s, due to the amount of sunshine the station receives. Because of its location with respect to the typical jetstream and its high altitude, Flagstaff is one of the ten sunniest locations of National Weather Service offices in the United States, averaging 78 percent of the possible sunshine throughout the year. Even with all of this winter sunshine, significant snowfall can be expected during the winter with an average snowfall of around 110 inches per year. Between storms, when dry high pressure builds in, winds become light, and fresh snow cover is on the ground, minimum temperatures can plummet. The all-time record low for Flagstaff is -30^0F.

By mid-April, winter weather usually begins to break, and although snow is not uncommon in May, warm spells become more frequent. Spring in Flagstaff is typically breezy and dry with little precipitation occurring in May and early June. Due to the very dry airmass typical of the late spring months, late season frosts and freezes are still a possibility, with 32^0F temperatures being recorded as late as July 8. Snowfall has been reported as late as the middle of June.

There are two distinct periods of precipitation in Flagstaff. The first occurs during the winter months from November through April when the jetstream can be located over the state allowing Pacific storm systems to move overhead. The other distinct period is classified as the summer rainy season, or 'summer monsoon.' The monsoon rainy period usually occurs during July and August when most of Arizona is subjected to widespread thunderstorm activity. These

thunderstorms are extremely variable in intensity and location and occur mainly between the hours of 11 a.m. and 6 p.m. Some of these storms can reach severe levels, with large hail, damaging winds, and occasionally even a tornado.

Prevailing winds at Flagstaff are southerly most of the year. This is due to terrain influences and short-wave weather disturbances moving across the Great Basin region of the West. Strong winds of 40 mph or greater are likely during the spring months, especially when low pressure moves into the Great Basin and eastward across southern Utah. Winds of damaging force (greater than 60 mph) are rare but may occur around some of the mountain locations during the winter and spring months. Additionally, some thunderstorms may produce local wind gusts over 60 mph for short durations.

Since there is no concentration of industry, pollution is almost nonexistent, and the air is remarkably free of contaminants of any kind, although smoke from resident's fireplaces can become a problem on some of the colder nights due to strong radiational inversions that develop. During the spring and fall months, prescribed burns take place in the region, contributing to occasional smoke and haze issues. During the winter and spring months, fog occasionally forms due to radiational cooling from snow cover on the ground. However, this fog usually breaks up quickly by morning. In spite of the elevation, periods of low ceilings and limited visibilities are usually of short duration.

A HISTORY OF WEATHER OBSERVATIONS AT FLAGSTAFF

The first official weather station in Flagstaff was established September 9, 1898. The office was located at the southeast corner of Aspen Avenue and Park Street in a one-story five-room brick building known as the "Milligan Cottage". The first observer was Miss Elizabeth Renoe, who later married a young attorney who became the first United States Senator from Arizona, Senator Henry Ashurst.

On March 15, 1912, the station was moved to Sitgreaves and Ellery Streets, which was one-half mile southeast of the previous location. The station remained at this location until October 29, 1919. The station was then moved to 602 North Leroux Street.

On June 1, 1943, the weather station was moved to the Federal Post Office Building in downtown Flagstaff. A first-order weather station was then established.

On January 12, 1950, the weather station was moved to the Flagstaff Municipal Airport, six miles south of Flagstaff. The station and the weather office remained at the airport until June 1994 when the National Weather Service office moved to the Camp Navajo Army Depot in Bellemont, 10 miles west of Flagstaff. From July 1994 to July 1995, the National Weather Service office was temporarily located in the army barracks, while a new office was constructed.

On July 21, 1995, the office officially moved to its current location on the Camp Navajo Army Depot. An automated weather station (ASOS) remains at the Flagstaff Municipal Airport recording the official observations for Flagstaff. The ASOS was commissioned July 1, 1994.

SOME HIGHLIGHTS OF THE WEATHER RECORDS IN FLAGSTAFF

Many unusual weather events have taken place in Flagstaff since official weather

observations began on September 9, 1898. The following is a brief description of some of the more extreme conditions recorded since then.

The all-time record high temperature for Flagstaff of 97^0F occurred on July 5, 1973. Skies were clear and winds were generally light westerly, although by afternoon winds were generally around 10 mph. The early morning temperature of 51^0F was very close to the normal of 48^0F. The next day a weak cold front approached the state, keeping the afternoon high temperature only at 89^0F.

The all-time record warmest minimum temperature for Flagstaff was broken on back to back nights in 2002. On July 1, 2002 the mercury fell to only 67 degrees breaking the previous record of 66 degrees set in 1949. This record was then broken again the next night when the temperature only fell to 68 degrees. Oddly enough, the dew point temperatures were only in the lower 40s during this period and there were not extensive clouds or winds to keep the temperatures from falling rapidly. However, there was a large fire burning to the east of Flagstaff, with some smoke in the area that may have contributed to the record warm overnight temperatures.

The longest consecutive stretch of days with maximum temperatures of 90^0F or greater in Flagstaff was 11 days. This occurred during June 21 - July 1, 1990. The highest temperature reached during this longest stretch of warm weather was 94^0F.

The longest consecutive stretch of days with maximum temperatures of 85^0F or greater in Flagstaff was 22 days. This occurred during June 10 - July 1, 1974.

The maximum number of days in a calendar year with temperatures of 90^0F or greater was 15 set in 1974. Of note, 14 of those days occurred in June. The maximum number of days in a year with temperatures of 85^0F or greater was 48 days which was also set in the warm summer of 1974. 21 of these days occurred in June of that year.

The coldest temperature ever recorded in Flagstaff was -30^0F which was observed on January 22, 1937. The maximum temperature reached that day was $+12^0$F, which was a 42^0F diurnal spread.

The maximum number of consecutive days with minimum temperatures of 0^0F or lower was eight. This stretch of cold weather occurred from December 27, 1966 - January 3, 1967.

The maximum number of days in a calendar year with temperatures of 0^0F or lower was 23 set in 1932. The maximum number of days in any month with temperatures of 0^0F or lower was 17 set in the extremely cold month of January 1937. The average minimum temperature that month was -2.9^0F which was about 18 degrees below normal.

Snowfall in Flagstaff is highly variable as well. The most snowfall ever recorded during the snow season (July - June) was 210.0 inches in 1972-73. On the other extreme, the least snowfall ever recorded during the snow season was 11.2 inches which was set in 1933-34.

The all-time record for heaviest precipitation during any calendar day at Flagstaff was

3.93 inches which was set on February 19, 1993. Interestingly enough, this precipitation all fell in the form of rain, with temperatures remaining in the middle and upper 30s through the entire 24 hours. Another 1.18 inches of precipitation fell the next day, however temperatures fell during the morning hours, changing the rain to snow, with a snow accumulation of 3.2 inches by the end of the day.

February 1993 was the wettest month on record, with 10.05 inches of precipitation falling during that period. Additionally, January 1993 was the wettest January on record with 9.55 inches of precipitation falling. Thus, almost 20 inches of precipitation (or almost the entire normal precipitation expected for a year at Flagstaff) fell in a two month period of time. December 1992 was the second wettest December on record, giving a three month total from December 1992 through February 1993 of 27.38 inches which is by far the wettest three month period of time in Flagstaff climatological history. Needless to say, this period was known for the magnitude of flooding which occurred across the area.

The most snowfall to occur within a continuous stormy period, occurred from December 13 - December 20, 1967, when 84.6" of snow was recorded. By the end of this event, 83 inches of snow lay on the ground, essentially paralyzing the city of Flagstaff and most of northern Arizona for over a week. Because of snow compaction and limited means to measure this amount of snowfall, it was likely that considerably more snow than the recorded amount actually fell during this event.

The greatest number of consecutive days without measurable precipitation was recorded from September 24 - December 31, 1999, a total of 99 days! The greatest number of consecutive days with measurable precipitation was 18 days set during the period of August 23 – September 9, 2003, when a total of 3.73" of precipitation fell.

The most precipitation ever recorded in one calendar year at Flagstaff was 36.59 inches, set during 1965. The least precipitation recorded in one calendar year at Flagstaff was 9.90 inches, set in 1942. Average annual precipitation for Flagstaff is 22.91 inches.

II. TEMPERATURE RECORDS

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: JANUARY

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	61	1981	17	1919	34	1934	-21	1919
2	60	1902	19	#1919	41	1997	-21	1919
3	62	1918	17	1949	31	2005	-19	#1937
4	64	1927	12	1971	33	#1991	-22	1971
5	61	1948	10	1971	33	#1991	-22	1910
6	61	1969	8	1913	33	1921	-18	1910
7	65	1914	17	1937	34	1993	-17	1913
8	62	2002	23	#1937	39	1962	-12	1989
9	61	1996	22	1937	34	2005	-9	1937
10	65	1990	21	1937	35	2005	-15	1937
11	63	1990	25	1913	36	1982	-23	1913
12	58	1928	5	1963	35	#1981	-20	1963
13	59	#1996	20	1963	38	1957	-6	#1963
14	65	1943	26	1960	35	1909	-9	1963
15	65	1943	24	1949	35	1938	-12	1937
16	60	#1974	21	1987	36	1976	-8	1915
17	62	1971	21	1960	35	1914	-13	1987
18	64	1971	22	1943	35	1914	-8	1995
19	62	1986	22	1937	32	#1998	-13	1943
20	61	1950	16	#1937	34	#1969	-14	1922
21	60	1944	15	1937	35	1969	-24	1937
22	62	1970	12	1937	31	#1969	-30	1937
23	61	1970	17	1932	31	1923	-15	#1937
24	61	1982	15	1937	42	1999	-15	1964
25	61	1975	24	1937	44	1999	-17	1937
26	60	1987	22	#1979	37	1969	-15	1937
27	61	2003	21	1948	34	#1975	-13	1979
28	63	1986	20	1979	34	1911	-13	1918
29	60	1986	15	1979	36	1911	-12	1932
30	66	1971	24	1916	33	1963	-19	1979
31	63	1971	19	1916	34	#1963	-25	1916
Month	66	1971	5	1963	44	1999	-30	1937

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: FEBRUARY

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	60	#2003	17	1917	40	1963	-23	1985
2	62	1976	17	1985	37	1935	-14	1922
3	64	1953	20	1933	34	1928	-22	1922
4	64	1963	23	#1955	34	#1931	-16	1955
5	67	1963	21	1899	34	1907	-21	1985
6	65	1963	7	1989	33	1978	-21	1899
7	66	1963	14	1933	36	1932	-18	#1903
8	65	1996	22	1929	36	1957	-17	1933
9	64	1996	20	1939	37	1922	-21	1929
10	65	1951	21	#1965	35	1922	-17	1933
11	62	1971	21	1965	35	#1971	-12	1908
12	58	#2002	21	1905	32	#2005	-16	1965
13	68	1977	22	1949	36	2003	-18	1905
14	64	1957	25	1942	35	1977	-15	1949
15	65	#1996	25	1990	33	1941	-10	1942
16	70	1977	21	1910	35	1904	-3	#1990
17	66	#1996	27	1917	34	1986	-8	1956
18	65	1977	24	1917	36	#2005	-11	1942
19	65	1981	25	1918	38	1986	-6	1942
20	65	1977	18	1955	41	1996	-11	1955
21	60	#1995	23	1913	43	1996	-9	1955
22	64	2002	25	1913	41	1901	-10	1955
23	66	#1946	24	1969	40	1918	-6	1960
24	66	1904	27	#1987	42	1904	-4	1909
25	70	1986	27	1987	41	1904	-10	1919
26	71	1986	25	1962	36	1989	-7	1977
27	64	1921	25	#1996	36	1904	-12	1962
28	65	1999	29	#2004	40	1938	-16	1962
29	59	1984	32	1916	33	1908	-3	1996
Month	71	1986	7	1989	43	1996	-23	1985

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: MARCH

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	66	1921	20	1951	37	1920	-10	1997
2	65	1910	24	1951	36	1974	-1	1971
3	66	1910	24	1966	39	1967	-9	1915
4	68	1910	23	1969	35	1995	-16	1966
5	68	1910	32	#1976	37	#1995	-5	1948
6	68	1910	29	1969	36	1918	-2	1935
7	66	#1972	26	1969	38	2002	-1	1945
8	67	1989	28	1969	32	#1975	-4	#1969
9	70	1989	30	#1969	40	1943	0	1964
10	70	1989	25	#1969	40	1985	-9	1958
11	69	1900	26	1917	40	1918	-5	1948
12	72	1900	25	1956	38	1938	-1	1917
13	67	1934	27	1962	40	1989	-9	#1962
14	68	1934	25	1969	39	1984	-4	1990
15	71	1908	29	1917	35	1943	-3	1962
16	70	1908	31	2002	39	1914	-1	#1969
17	69	1921	33	1963	37	1996	3	1991
18	68	#2004	32	1924	33	1974	-1	1954
19	71	1907	31	#1982	36	1912	1	1963
20	72	2004	30	1955	38	1904	-1	1935
21	70	#2004	28	2000	42	1916	5	1948
22	68	2004	28	1952	37	1929	-1	1952
23	67	1990	30	#1936	36	2002	-1	1973
24	70	1956	28	#1929	37	1943	0	1904
25	72	1988	24	1913	39	1899	-1	1913
26	73	1988	32	1950	37	1971	-8	1902
27	70	1986	21	1975	39	#1967	-1	1975
28	68	#1971	26	1975	39	1967	-7	1975
29	70	1934	27	1998	38	#2002	10	1944
30	70	1971	33	1998	39	1903	1	1998
31	73	1966	35	1949	41	1903	3	1912
Month	73	#1988	20	1951	42	1916	-16	1966

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: APRIL

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	73	1966	31	1999	40	1986	2	1970
2	72	#1966	29	1999	42	2001	-2	1975
3	71	#1961	30	1999	40	2001	8	1980
4	74	1961	27	1999	39	1909	5	1977
5	75	1959	30	1921	40	1919	8	1958
6	75	1989	34	1929	40	1946	4	1922
7	80	1989	28	1975	40	1931	10	1922
8	78	1989	30	1975	40	#1989	14	#1999
9	75	1989	32	1943	40	1962	9	1953
10	74	1989	31	#1979	42	1948	13	1999
11	75	1907	29	1927	47	1989	10	1945
12	75	1904	28	1967	44	1982	7	#1953
13	75	1962	36	1912	40	1988	0	1965
14	75	1937	33	1938	42	1904	5	1972
15	76	#1948	33	1998	43	2002	11	1965
16	77	1948	30	1976	43	#1937	13	1995
17	77	1946	33	#1995	43	1964	16	1924
18	79	1989	32	1995	46	1981	16	#1978
19	77	1989	29	1933	51	2001	10	1917
20	78	1989	33	1995	45	1925	8	#1966
21	78	1989	34	1932	44	1989	12	#1972
22	76	1949	30	1925	46	1930	11	#1963
23	77	1949	36	#1932	44	1981	14	1963
24	77	1949	42	#1999	47	1943	10	1900
25	78	1996	38	1994	45	1959	13	#1961
26	79	1996	34	#1985	45	1917	17	#1984
27	77	#2000	37	1932	44	1946	10	1984
28	80	1992	30	1970	49	1981	13	1970
29	78	1992	35	1942	51	1981	7	1970
30	78	#1981	34	1915	48	1995	10	1967
Month	80	#1992	27	1999	51	#2001	-2	1975

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: MAY

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	80	1947	27	1915	44	1981	17	#1972
2	84	1947	33	1915	46	1928	13	1915
3	88	1947	37	1905	41	1945	7	1915
4	88	1947	38	1905	44	#1947	18	#1915
5	86	1947	38	#1975	45	1992	18	1950
6	82	1947	38	1995	48	2000	14	1975
7	81	1989	38	#1964	44	#1934	15	1938
8	85	1989	36	1930	48	1934	17	1965
9	81	1934	38	1922	46	#1989	14	1930
10	82	1934	34	1922	53	2000	19	1953
11	86	1996	39	1933	47	1992	16	1933
12	86	1996	43	#1982	50	1934	20	#1983
13	82	1984	42	1998	48	#1999	18	1953
14	83	1938	41	1977	48	1984	21	#1942
15	81	1937	45	#1957	50	1938	20	1968
16	80	1970	46	#1953	51	1996	16	1955
17	82	1970	46	1962	48	1974	20	1943
18	82	1970	46	1921	47	1976	21	1977
19	81	1920	37	1902	56	1996	20	1971
20	81	1920	44	1917	52	1901	18	1899
21	82	2005	42	1975	46	#1953	21	1974
22	85	1984	51	1975	46	#2005	21	1972
23	85	#2000	51	1957	47	1929	23	1927
24	83	#1983	41	1965	47	#2000	23	1909
25	84	1951	47	1965	54	1951	18	1980
26	87	1951	52	1917	53	1942	19	1916
27	87	1974	51	1929	48	#1919	23	1916
28	86	#2000	51	1953	51	1925	24	1929
29	86	#2000	39	1971	50	1928	22	1918
30	88	2002	49	1988	51	#1939	18	1918
31	89	2002	49	1917	51	#2003	23	1988
Month	89	2002	27	1915	56	1996	7	1915

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: JUNE

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	88	1977	48	1991	50	2002	24	1923
2	86	1977	44	1899	54	1910	22	1955
3	86	#1996	53	#1925	51	1960	23	1971
4	89	1990	46	1915	51	1956	23	1908
5	87	1996	56	1932	51	1968	25	1943
6	87	2002	54	1934	49	1926	28	#1971
7	89	1985	58	#1941	51	#1981	24	1954
8	89	1985	49	1907	55	1981	24	1950
9	88	1902	55	1965	53	#1990	24	1950
10	87	1910	49	1957	61	1978	28	#1998
11	90	1918	57	1928	57	1911	26	1954
12	91	1918	49	1927	53	1906	27	#1976
13	92	1974	50	1955	57	1959	30	#1976
14	92	1974	60	1901	54	1974	25	2001
15	92	1974	57	1997	55	#1961	28	#2001
16	92	1940	53	1995	54	1918	24	1907
17	92	1940	54	1995	47	1949	23	1923
18	92	1940	60	#1979	54	#1988	24	1995
19	92	1936	64	#1975	53	1988	25	1979
20	92	#1936	60	1923	57	1922	30	1979
21	93	1936	53	1947	57	1918	28	1975
22	94	1954	66	1912	59	#1971	31	1947
23	93	1974	66	2000	59	1958	31	1948
24	94	1974	66	1934	60	1994	32	1975
25	95	1970	68	#1969	64	1902	30	1965
26	96	1970	63	1965	58	1981	26	1975
27	94	1974	63	1906	62	1980	26	1965
28	94	1990	58	1988	60	1931	30	#1965
29	93	#1990	69	1938	61	1961	30	1913
30	92	#1994	69	1911	65	1990	31	1913
Month	96	1970	44	1899	65	1990	22	1955

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: JULY

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	91	#1990	58	1911	67	2002	33	2004
2	92	1969	72	#1938	68	2002	34	#1997
3	92	1989	62	1912	61	1973	34	1997
4	94	#1985	66	1912	60	1953	32	1912
5	97	1973	66	1952	60	1957	32	#1955
6	96	1989	66	1968	62	1996	35	#1978
7	92	1905	66	1982	64	1951	32	1955
8	92	#2002	66	1950	62	1951	32	1955
9	94	2003	68	1914	60	1985	34	1926
10	94	2003	66	1930	59	1996	37	1926
11	92	#2003	66	#1999	62	1958	40	1979
12	94	#2002	62	1918	62	1940	39	1952
13	94	1972	67	1912	65	1935	35	1904
14	92	1902	64	1910	61	#2002	38	#1962
15	92	1970	67	1919	60	#2003	38	1935
16	92	#1961	71	1986	62	#1961	37	2001
17	91	#1980	64	1902	62	1988	40	1904
18	93	#2005	68	1919	60	#1936	42	#1940
19	92	1989	68	1994	60	1925	34	1987
20	91	1939	68	#1991	63	1901	42	1940
21	92	1937	61	1986	62	1964	38	1924
22	92	1996	65	1913	63	1996	38	1995
23	92	#1996	66	1915	66	1949	37	1987
24	91	#1937	64	1955	59	#2002	39	1995
25	92	1931	62	1955	61	1929	41	1913
26	92	1935	65	1912	61	1943	40	1913
27	93	1947	68	1912	61	2003	36	1913
28	94	1995	64	1987	60	1923	36	1913
29	92	2002	64	1905	61	1947	37	1913
30	92	1943	66	1921	60	1963	40	1913
31	91	#1977	67	1921	61	1901	43	1997
Month	97	1973	58	1911	68	2002	32	#1955

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: AUGUST

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	92	1977	60	1919	60	#1980	42	#1915
2	93	1902	65	1964	63	2000	43	1976
3	91	#1994	66	1907	61	1980	37	1956
4	91	1994	67	1929	61	1901	35	1956
5	90	1944	68	1931	65	1903	35	1976
6	90	#1983	70	#2002	57	#1981	36	1953
7	92	1978	70	1909	62	1903	39	1991
8	90	1980	67	1930	60	1965	39	1950
9	89	1980	64	1918	58	#1970	44	#1999
10	89	2002	66	1981	59	1940	40	1900
11	91	#1980	65	1918	57	#2002	36	1900
12	92	1944	62	1979	60	2002	36	1999
13	90	2002	66	1916	60	1980	39	1999
14	89	2002	63	#1999	61	1901	33	1976
15	88	#1962	61	1961	59	1980	33	1968
16	89	1939	65	1947	58	1963	37	1968
17	88	2002	67	#1979	57	1945	38	#1979
18	87	#2002	65	1979	56	#1936	36	1975
19	88	#1973	65	1979	57	#2002	35	1979
20	88	#1949	67	1920	58	#2002	35	1979
21	90	1991	64	1921	62	1928	33	1979
22	88	1938	58	1992	60	1928	32	1968
23	90	1985	53	1992	58	1982	24	1968
24	91	1985	64	1986	57	1944	30	1968
25	88	1985	65	1923	57	1988	36	2002
26	88	#1974	64	1972	58	#1939	37	1989
27	88	1944	62	#1993	57	1937	36	1978
28	89	#1948	58	1951	56	#1967	33	1920
29	91	1948	57	1951	56	1928	37	1956
30	90	1948	63	#1909	57	1929	36	#1975
31	89	#1950	63	1966	55	#1998	35	1957
Month	93	1902	53	1992	65	1903	24	1968

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: SEPTEMBER

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	91	1948	63	1913	56	1995	33	1962
2	91	1948	64	#1940	55	1936	35	1953
3	91	1948	62	1961	56	2004	34	#1973
4	90	1945	63	1936	57	#1998	27	1961
5	89	1945	59	1939	56	1980	31	1961
6	87	1977	55	1975	56	1899	33	1985
7	89	1977	62	#1975	55	1903	35	1970
8	88	#1977	61	1908	57	1919	33	1935
9	87	#1977	58	1912	55	#2003	31	2001
10	87	#1990	65	1996	56	1939	28	1912
11	88	1990	59	1985	54	1952	30	1986
12	88	1990	56	1927	54	1914	25	1985
13	89	1990	56	1927	55	#1970	26	1952
14	88	#2000	57	1911	57	1938	29	#1988
15	87	#2000	53	1906	52	#1990	26	1903
16	88	2000	59	#1996	60	1929	28	1971
17	88	1956	49	1923	56	1929	27	1903
18	86	1956	46	1965	54	1942	30	#1968
19	84	#1956	51	1965	53	#1992	25	1971
20	83	#2000	54	1965	53	1939	23	1971
21	84	1943	57	2004	56	1928	23	1955
22	83	1949	57	1986	53	2000	20	1912
23	86	1944	51	1986	56	1931	25	1970
24	85	1947	41	1986	51	1939	25	1918
25	85	1947	46	1986	54	1929	24	#1959
26	84	1899	53	1913	50	1926	22	1934
27	83	1963	52	#1936	49	#1977	23	1900
28	82	#1963	51	1945	52	1911	21	1900
29	82	1978	49	1983	50	1911	22	1902
30	83	1980	54	1971	51	1944	24	1907
Month	91	#1948	41	1986	60	1929	20	1912

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: OCTOBER

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	85	1980	41	1959	53	1981	23	#1982
2	82	1991	45	1959	49	1951	18	1971
3	83	1980	46	1908	49	1998	21	1902
4	83	1947	50	1960	50	1900	15	1908
5	80	1991	40	1912	48	1925	14	1969
6	81	1987	42	1912	50	1972	18	1912
7	80	1965	53	1970	47	1923	21	#1955
8	80	#1980	41	1939	52	1926	21	1900
9	81	#1996	41	1961	45	#1988	20	1970
10	81	1996	44	1960	49	2003	20	1973
11	80	#1965	42	1969	47	1981	19	1920
12	83	1950	39	1947	46	1987	9	1969
13	79	1950	41	1920	46	1991	12	1969
14	78	1991	39	1928	46	1944	18	1975
15	78	1991	38	1960	43	#1938	19	1966
16	78	1991	38	1994	44	#1972	13	1984
17	78	1973	31	1971	44	2004	18	1998
18	78	1921	33	1908	45	#1972	10	1971
19	77	#2003	38	#1920	44	1979	6	1971
20	77	2003	32	1920	43	#1951	4	1949
21	75	#2003	37	#1920	46	1901	5	1949
22	76	2003	32	1906	43	2001	9	1906
23	76	2003	38	1920	45	1944	10	1906
24	79	1959	42	1919	43	1960	9	1975
25	78	1959	37	1971	42	1951	11	1975
26	75	1959	30	1996	43	1927	14	1972
27	74	1995	36	1996	45	1927	10	1970
28	74	1950	35	1996	46	1981	13	1954
29	72	#1950	31	#1971	40	1992	9	1971
30	72	1934	32	1961	42	2003	-2	1971
31	70	#1999	31	1972	42	2003	7	1935
Month	85	1980	30	1996	53	1981	-2	1971

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: NOVEMBER

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	73	1916	35	1956	41	2003	11	#1943
2	73	1977	32	1946	41	1973	10	1956
3	74	1977	32	1936	41	#1987	8	1922
4	73	1975	32	1922	40	2001	-1	1922
5	70	#1976	35	1925	41	1960	1	1922
6	72	#1934	34	#1925	41	1960	7	1935
7	71	1934	33	2000	39	1905	8	1947
8	74	1973	35	1919	44	1931	8	1918
9	71	1973	35	1966	42	2002	3	1898
10	71	1973	33	#2000	41	1991	5	1946
11	73	1973	31	2000	40	1991	7	1950
12	72	1996	30	1972	42	1983	3	1898
13	72	1967	22	1916	43	1983	-3	2000
14	70	1967	30	1985	39	1962	-5	1985
15	70	#1999	24	1964	37	1965	2	1985
16	70	1981	21	1958	38	1921	-1	1964
17	65	1929	22	1958	36	1982	-10	1964
18	68	1898	25	1969	38	1913	-13	1958
19	69	1949	22	1994	40	1950	-6	1985
20	71	1976	22	1979	33	1968	-5	1964
21	70	1950	28	1979	41	1966	-5	1979
22	68	1903	22	1931	41	1919	-2	1931
23	69	1954	25	1931	41	1965	-4	1931
24	68	#1970	20	1931	42	1965	-7	1902
25	70	1949	24	1931	38	1919	-8	1906
26	70	1977	26	1918	35	1958	-8	1906
27	68	1949	25	1976	32	1939	-5	#1984
28	68	1980	26	#1919	30	#1982	-3	#1905
29	68	1949	24	1975	34	#1954	-8	1905
30	66	1995	25	1991	37	1980	-3	1975
Month	74	#1977	20	1931	44	1931	-13	1958

Also occurred in other previous years

DAILY MAXIMUM AND MINIMUM TEMPERATURE EXTREMES
SEPTEMBER 1898-JULY 2005

MONTH: DECEMBER

Date	High Max	Year	Low Max	Year	High Min	Year	Low Min	Year
1	63	1926	24	1991	36	1954	-7	1905
2	62	1946	27	1913	36	1906	-5	#1991
3	67	1977	27	1913	37	1926	-2	#1968
4	67	1965	26	1909	37	1926	-4	#1955
5	67	1989	23	1912	37	1921	-1	#1953
6	62	1977	19	1960	42	1966	-6	1951
7	66	1958	10	1978	33	2003	-19	1978
8	62	#1976	12	1978	35	1957	-23	1978
9	62	#1977	19	#1951	32	1965	-8	1951
10	65	1939	23	1898	36	1996	-2	1956
11	68	1950	18	1949	36	1996	-11	1961
12	64	1921	26	#1972	33	#1937	-16	#1961
13	66	1921	17	1967	39	1995	-19	1931
14	66	1946	20	1967	36	1934	-14	#1972
15	63	1929	22	1971	35	1934	-14	1931
16	63	1958	21	#1971	38	1957	-18	1971
17	65	#1980	22	1967	32	1929	-14	1928
18	65	1901	22	#1924	32	1991	-14	1908
19	62	1958	22	1924	34	1998	-14	1924
20	61	1917	21	1951	35	1921	-12	1924
21	61	1969	14	1990	33	1921	-6	1967
22	64	1901	21	1990	33	1982	-16	1968
23	63	1901	16	1990	33	#1955	-23	1990
24	61	1933	17	1974	36	1983	-17	1974
25	67	1980	20	1987	37	1971	-14	1926
26	63	1980	19	1916	34	1923	-16	1924
27	67	1980	18	1916	36	1983	-14	#1926
28	61	1980	25	#1988	35	#1992	-12	1966
29	62	1945	22	1966	37	1980	-13	1988
30	62	1917	21	1966	34	1977	-16	1911
31	62	1945	18	1918	36	1909	-16	1911
Month	68	1950	10	1978	42	1966	-23	#1990

Also occurred in other previous years

HIGHEST AND LOWEST AVERAGE TEMPERATURES
BY MONTHS WITH YEAR OF OCCURRENCE
(SEPTEMBER 1898 - JULY 2005)

Month	Normal* Monthly	Highest Average	Year	Lowest Average	Year
January	29.7	37.2	2003	12.7	1937
February	32.2	38.2	1947!	19.5	1939
March	36.6	44.9	1934	26.8	1973
April	42.9	50.4	1989	36.2	1975
May	50.8	56.8	1984	44.6	1917!
June	60.1	66.5	1974	53.0	1965
July	66.1	70.0	2002	61.1	1912!
August	64.4	67.5	1944!	59.5	1968
September	57.8	62.1	1947!	52.3	1912!
October	47.1	52.5	1988	38.6	1971
November	36.5	44.9	1949!	29.6	1972
December	30.2	39.8	1980	21.9	1972

*Climatological normals from the years 1971-2000.

! Author Note: Due to the fact that weather stations were often moved, especially in the early days of the National Weather Service, some records are more representative than others. Even though all temperature and precipitation observations are valid for their particular locations, some locations have proven to be more representative of the general surrounding area than others. In the Flagstaff climatology, there are two periods of observations which appear to be not as representative, due to their locations and siting.

The first of these periods is from March 15, 1912- October 29, 1919 when the observations were taken near the intersection of Sitgreaves and Ellery Streets. This location appears to have been a cold location, with numerous record lows occurring here. When compared to other locations in Arizona during this same period of time, this unusual cold tendency appears to be due to instrument error, or to improper siting. You will note many daily, monthly, and yearly cold records occurring during the 1912-1919 period.

The other period of suspect climate information is during the period from June 1, 1943 - January 11, 1950 when the observations were being recorded at the old Flagstaff post office, located downtown. Again, due to improper siting of the instruments on the post office roof, the temperatures occurring at this location appear to be unnaturally too warm when compared to surrounding stations. You will note many daily, monthly, and yearly warm records occurring during the 1943-1950 period.

With time, these biased records will be overwritten by new records, however until that happens, data from these two periods of record should be viewed cautiously with respect to their siting.

HIGHEST AND LOWEST MONTHLY AVERAGE TEMPERATURES
(SEPTEMBER 1898 - JULY 2005)

		Highest Monthly Average Temperature		Lowest Monthly Average Temperature	
Month	Normal*	Temp	Year	Temp	Year
JANUARY	29.7	37.2	2003	12.7	1937
		37.0	1986	19.7	1949
		36.2	1981	19.8	1932
		35.1	1953	21.0	1913
		34.5	1999	21.3	1922
FEBRUARY	32.2	38.3	1947	19.5	1939
		38.0	1904	20.5	1933
		37.9	1907	20.7	1919
		37.4	1934	22.0	1903
		37.2	1995	22.5	1955
MARCH	36.6	44.9	1934	26.8	1973
		42.6	2004	27.3	1969
		41.8	1989	28.1	1962
		41.1	1910	28.6	1952
		41.0	1900	29.0	1917
APRIL	42.9	50.4	1989	36.2	1975
		49.1	1992	37.0	1983
		48.5	1981	37.2	1998
		48.4	1946	37.5	1999
		48.0	1949	37.5	1970
MAY	50.8	56.8	1984	44.6	1917
		55.6	1934	45.0	1953
		55.4	2000	45.2	1915
		55.4	1947	45.3	1908
		55.3	2001	45.4	1930
JUNE	60.1	66.5	1974	53.0	1965
		66.1	1981	54.2	1907
		64.7	1918	54.7	1923
		64.4	1990	55.0	1998
		63.8	1940	55.1	1995

*Monthly normals based on climatological normals 1971-2000.

HIGHEST AND LOWEST MONTHLY AVERAGE TEMPERATURES
(SEPTEMBER 1898 – JULY 2005)

		Highest Monthly Average Temperature		Lowest Monthly Average Temperature	
Month	Normal*	Temp	Year	Temp	Year
JULY	66.1	70.0	2002	61.2	1912
		69.5	2003	61.7	1955
		69.4	1901	62.6	1911
		69.0	1980	62.7	1914
		68.7	1931	62.8	1913
AUGUST	64.4	67.5	1944	59.5	1968
		67.2	1945	60.5	1979
		66.8	1995	60.6	1916
		66.7	1939	60.7	1906
		66.6	1991	60.8	1956
SEPTEMBER	57.8	62.1	1947	52.3	1912
		61.9	1933	52.8	1900
		61.5	1956	53.0	1986
		60.8	1949	53.0	1971
		60.7	1983	53.1	1985
OCTOBER	47.1	52.5	1988	38.6	1971
		52.1	1950	40.5	1969
		51.8	2003	41.2	1908
		51.2	1964	42.1	1919
		51.1	1952	42.4	1984
NOVEMBER	36.5	44.9	1949	29.6	1972
		42.3	1995	30.4	1952
		41.8	1981	30.8	2000
		41.8	1942	31.2	1979
		41.5	1927	31.3	1964
DECEMBER	30.2	39.9	1980	21.9	1972
		37.6	1977	21.9	1932
		37.0	1939	22.0	1911
		36.5	1958	22.1	1909
		36.4	1981	22.2	1905

*Monthly normals based on climatological normals 1971-2000.

WARMEST AND COLDEST
WINTER, SPRING, SUMMER, FALL
(SEPTEMBER 1898 – JULY 2005)

WINTER
(DECEMBER 21 - MARCH 20)
Average = 31.7*

Warmest		Coldest	
Temp	Year	Temp	Year
37.3	1933-34	22.6	1918-19
36.9	1980-81	23.3	1916-17
36.0	1985-86	24.5	1932-33
35.6	1899-00	24.5	1914-15
35.1	1998-99	24.8	1936-37
34.5	1994-95	25.0	1912-13
34.4	1942-43	25.4	1954-55
33.9	1999-00	25.7	1948-49
33.9	1995-96	25.8	1972-73
33.9	1983-84	26.3	1921-22

SPRING
(MARCH 21 - JUNE 20)
Average = 48.5 *

Warmest		Coldest	
Temp	Year	Temp	Year
52.7	1989	43.4	1998
51.9	1981	43.7	1975
51.9	1946	44.3	1965
51.8	1940	44.3	1917
51.6	2002	44.5	1995
51.6	2000	44.7	1967
51.4	1947	45.2	1980
51.3	1974	45.2	1972
51.3	1934	45.3	1983
51.2	2001	45.3	1979

*Averages based on climatological normals from 1971-2000.

WARMEST AND COLDEST
WINTER, SPRING, SUMMER, FALL
(SEPTEMBER 1898 – JULY 2005)

SUMMER
(JUNE 21 - SEPTEMBER 20)
Average = 63.7*

Warmest		Coldest	
Temp	Year	Temp	Year
66.3	1945	59.3	1912
66.2	1980	60.8	1906
65.9	2002	60.9	1916
65.9	1943	61.1	1904
65.6	1937	61.2	1911
65.5	1981	61.2	1907
65.5	1977	61.3	1965
65.4	1901	61.3	1915
65.3	1974	61.5	1950
65.2	1960	61.6	1968

FALL
(SEPTEMBER 21 - DECEMBER 20)
Average = 40.9*

Warmest		Coldest	
Temp	Year	Temp	Year
45.4	1977	33.3	1971
45.4	1950	36.0	1972
45.0	1980	36.7	1908
44.6	1942	37.5	1961
44.6	1921	37.8	1931
44.5	1981	37.8	1919
44.3	1937	38.0	1912
44.1	1939	38.3	1951
43.9	1995	38.3	1905
43.9	1910	38.3	1902

*Averages based on climatological normals 1971-2000

HIGHEST AND LOWEST ANNUAL TEMPERATURE
(1899-2004)

Highest Annual Average		Lowest Annual Average	
Temp	Year	Temp	Year
49.5	1981	43.0	1915!
48.9	1934	43.0	1913!
48.1	1943!	43.4	1912!
48.1	1940	43.5	1979
47.9	2003	43.7	1971
47.9	1946!	43.8	1919!
47.8	1989	43.9	1908
47.7	1977	44.0	1972
47.6	2000	44.0	1955
47.6	1947!	44.0	1917!

Average Annual
Temperature*
46.2

* Averages based on climatological normals 1971-2000.

! These years should be viewed with caution due to suspect observations due to siting issues.

AVERAGE NUMBER OF DAYS PER YEAR WITH MAXIMUM TEMPERATURES 80, 85, AND 90 DEGREES OR HIGHER (1971-2000)

80 Degrees or higher.....61 days
85 Degrees or higher.....25 days
90 Degrees or higher.....4 days

AVERAGE NUMBER OF DAYS PER YEAR WITH MINIMUM TEMPERATURES 40, 32, AND 0 DEGREES OR LOWER (1971-2000)

40 Degrees or lower.....265 days
32 Degrees or lower.....206 days
0 degrees or lower.....6 days

FREEZE AND GROWING SEASON DATA (1950-2004)

The longest growing season on record.....145 days in 1981*
The shortest growing season on record.....72 days in 1968*

Average growing season.....103 days

Average date of the last spring frost (32 degrees).....June 10
Earliest date of the last spring frost (32 degrees).....May 12, 2003
Latest date of the last spring frost (32 degrees).....July 8, 1955

Average date of the first fall frost (32 degrees).....September 21
Earliest date of the first fall frost (32 degrees).....Aug 22, 1968
Latest date of the first fall frost (32 degrees) .....Oct 14, 1981

Average date of the last spring freeze (28 degrees)…….....May 28
Earliest date of the last spring freeze (28 degrees).....Apr 23, 1992
Latest date of the last spring freeze (28 degrees).....June 27, 1965

Average date of the first fall freeze (28 degrees)…….....October 5
Earliest date of the first fall freeze (28 degrees).....Aug 23, 1968
Latest date of the first fall freeze (28 degrees).....Oct 26, 1991

* Based on the last day of 32 degrees in the spring and the first days of 32 degrees in the fall.

GREATEST NUMBER OF CONSECUTIVE DAYS WITH MAXIMUM TEMPERATURES 85 DEGREES OR HIGHER (SEPTEMBER 1898 - JULY 2005)

Days	Date
22	June 10 - July 1, 1974
20	July 17 - Aug 5, 2000
15	July 3 – July 17, 2003
15	July 24 - Aug 7, 1995
15	July 5 - July 19, 1901
14	June 18 - July 1, 1990
14	June 24 - July 7, 1973
13	July 27 - Aug 8, 1978
13	June 19 - July 1, 1929
12	July 6 - July 17, 1948
12	July 3 - July 14, 1940
11	July 11 – July 21, 2005
11	July 9 - July 20, 1971

Only periods with 11 or more days are tabulated.

GREATEST NUMBER OF CONSECUTIVE DAYS WITH MAXIMUM TEMPERATURES 90 DEGREES OR HIGHER (SEPTEMBER 1898 - JULY 2005)

Days	Date
11	June 21 - July 1, 1990
6	July 3 - July 8, 1989
5	July 9 – July 13, 2003
5	June 26 - June 30, 1974
4	July 12 – July 15, 2005
4	July 26 - July 29, 1995
4	June 27 - June 30, 1980
4	June 21 - June 24, 1974
4	June 12 - June 15, 1974
4	July 2 - July 5, 1973
4	July 12 - July 15, 1972
4	June 24 - June 27, 1970
4	July 14 - July 17, 1948
4	July 26 - July 29, 1947
4	July 30 - Aug 2, 1938
4	July 23 - July 26, 1931
4	June 20 - June 23, 1929

Only periods with 4 or more days are tabulated.

GREATEST NUMBER OF CONSECUTIVE DAYS WITH MINIMUM TEMPERATURES 32 DEGREES OR LOWER (SEPTEMBER 1898 - JULY 2005)

Days	Date
192	Oct 19, 1972 – Apr 28, 1973
176	Nov 10, 1969 – May 4, 1970
167	Oct 29, 1967 – Apr 12, 1967
161	Oct 30, 1948 – Apr 8, 1949
157	Nov 8, 1987 – Apr 12, 1988
143	Nov 19, 1986 – Apr 10, 1987
142	Oct 21, 1932 – Mar 10, 1933
141	Nov 4, 1952 – Mar 24, 1953
140	Nov 14, 1960 – Apr 2, 1961
140	Nov 16, 1918 – Apr 4, 1919

Only periods with 140 or more days are tabulated.

GREATEST NUMBER OF CONSECUTIVE DAYS WITH MINIMUM TEMPERATURES 0 DEGREES OR LOWER (SEPTEMBER 1898 – JULY 2005)

Days	Date
8	Dec 27,1966 - Jan 3, 1967
8	Dec 31, 1918 - Jan 7, 1919
7	Dec 15, 1928 - Dec 21, 1928
7	Dec 23, 1926 - Dec 29, 1926
6	Dec 22, 1990 - Dec 27, 1990
6	Jan 3, 1971 - Jan 8, 1971
6	Jan 11, 1963 - Jan 16, 1963
6	Jan 1, 1960 - Jan 6, 1960
6	Jan 21, 1937 - Jan 26, 1937
6	Dec 16, 1932 - Dec 21, 1932
6	Dec 30, 1911 - Jan 4, 1912
6	Dec 24, 1909 - Dec 29, 1909
6	Feb 4, 1903 - Feb 9, 1903

Only periods with 6 or more days are tabulated.

III. PRECIPITATION RECORDS

GREATEST DAILY 24-HOUR PRECIPITATION (INCHES)
(Midnight - Midnight)
SEPTEMBER 1898 - JULY 2005

	JANUARY		FEBRUARY		MARCH		APRIL	
Date	24 Hr Pcpn	Year	24 Hr Pcpn	Year	24 Hr Pcpn	Year	24 Hr Pcpn	Year
1	2.08	1910	1.01	1919	2.81	1970	2.95	1903
2	1.45	1922	2.30	1901	0.95	1978	0.91	1977
3	1.23	2005	1.35	1901	2.11	1938	1.02	1965
4	1.57	2005	1.44	1958	1.14	1908	1.19	1929
5	1.15	1974	2.29	1976	0.77	1907	0.80	2001
6	1.23	1965	1.59	1965	0.85	2000	0.41	2002
7	1.50	1957	1.24	1901	0.52	1918	0.62	1946
8	1.65	1993	2.05	1993	1.27	1918	1.04	1935
9	1.13	1905	2.07	1976	0.70	1926	0.62	1965
10	1.61	1911	1.63	1978	1.85	1912	0.71	1965
11	0.97	2005	1.36	2005	1.91	1982	1.09	1905
12	1.00	2001	0.70	1931	1.43	1906	1.67	1941
13	1.12	1997	1.84	1992	1.27	1905	0.65	1976
14	0.42	1969	2.37	1980	1.31	1944	0.71	1976
15	0.92	1978	1.07	1927	0.77	1945	0.48	1976
16	0.84	1917	1.40	1927	1.27	1930	1.80	1934
17	1.83	1979	0.49	1971	0.73	1922	1.67	1917
18	1.73	1952	0.65	1980	0.64	1982	0.72	1968
19	0.74	1937	3.93	1993	1.58	1994	0.44	1951
20	0.90	1917	1.18	1993	0.69	1981	0.56	1995
21	1.36	1982	1.03	1944	1.02	1991	1.70	1985
22	1.53	1909	0.68	1907	1.28	1954	1.08	1925
23	1.73	1943	0.62	1957	1.09	1954	0.45	!1999
24	1.11	1944	1.19	1987	1.14	1902	1.01	1990
25	1.70	1901	0.84	1958	1.83	1910	0.36	1994
26	0.84	1997	1.17	1902	1.10	1989	1.22	1963
27	1.81	1916	0.80	1905	0.59	1938	0.69	1994
28	0.85	1916	1.80	1991	1.13	1998	1.01	1900
29	2.05	1915	0.73	1960	0.83	1967	0.74	1951
30	1.21	1922			0.84	1970	0.80	1954
31	0.87	1919			1.24	1903		
Month	2.08	1910	3.93	1993	2.81	1970	2.95	1903

! Also occurred in other years

GREATEST DAILY 24-HOUR PRECIPITATION (INCHES)
(Midnight - Midnight)
SEPTEMBER 1898 – JULY 2005

	MAY		JUNE		JULY		AUGUST	
Date	24 Hr Pcpn	Year	24 Hr Pcpn	Year	24 Hr Pcpn	Year	24 Hr Pcpn	Year
1	0.77	1915	0.31	1991	0.51	1911	1.38	1906
2	0.62	1905	0.91	1999	1.39	1919	1.71	1963
3	0.97	1908	0.31	1915	0.92	!1944	1.64	1907
4	0.67	1960	0.52	1986	1.85	1986	1.11	1993
5	0.55	1992	0.40	1903	1.06	1967	0.76	2000
6	0.93	1921	0.55	1993	0.55	1990	2.16	1986
7	0.33	1927	0.28	!1912	0.77	1974	1.14	1937
8	0.77	1976	0.34	1907	1.33	1981	1.38	1959
9	0.85	1922	0.26	1983	0.88	1988	1.40	1977
10	0.63	1944	1.47	1957	0.76	1919	1.30	1953
11	0.81	1980	0.39	1927	1.03	1918	1.10	1979
12	0.45	1965	1.32	1955	0.69	1918	1.99	1987
13	0.53	1994	1.58	1955	1.55	1976	3.04	1986
14	0.72	1901	0.88	1921	0.84	1967	1.10	1909
15	0.52	1951	0.09	1965	2.55	1964	1.10	1921
16	0.30	1951	0.17	1933	1.05	1908	0.85	1958
17	0.96	1903	0.70	1933	1.08	1911	1.28	1920
18	0.45	1915	0.89	1949	0.93	1946	1.07	1989
19	0.50	1957	0.45	1967	2.14	1986	0.90	1984
20	0.95	1900	0.32	1925	1.59	1986	1.84	2004
21	0.52	1975	0.68	1958	1.20	1918	1.88	1932
22	0.31	1919	1.27	1922	1.51	1962	2.75	1992
23	0.97	1919	0.11	2005	1.35	1983	1.62	1988
24	1.11	1965	0.29	1922	1.37	1984	0.96	1907
25	0.23	1994	0.78	1954	1.35	2003	1.10	1931
26	0.75	1992	0.32	1954	1.61	1969	0.98	1984
27	0.68	1901	0.75	1940	1.13	1905	0.82	1985
28	0.61	1990	0.66	1938	2.19	1929	2.28	1951
29	0.92	1992	2.40	1956	1.37	1977	1.62	1951
30	0.46	1986	0.39	1956	1.21	1964	1.23	1946
31	0.39	2003			0.76	1921	1.79	1963
Month	1.11	1965	2.40	1956	2.55	1964	3.04	1986

! Also occurred in previous years.

GREATEST DAILY 24-HOUR PRECIPITATION (INCHES)
(Midnight - Midnight)
SEPTEMBER 1898 - JULY 2005

	SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Date	24 Hr Pcpn	Year	24 Hr Pcpn	Year	24 Hr Pcpn	Year	24 Hr Pcpn	Year
1	1.32	1998	0.85	1959	1.53	1987	0.45	1955
2	0.86	1990	1.03	1981	1.30	1957	0.94	1906
3	0.59	1907	1.34	1968	1.46	1957	1.33	1908
4	0.65	1970	1.60	1972	0.48	1925	1.55	1992
5	2.84	1970	1.80	1940	0.71	1987	0.98	1966
6	0.82	2002	2.34	1993	0.95	1915	2.87	1966
7	1.08	2002	1.55	1924	0.76	1969	0.94	1966
8	0.87	1990	1.36	1961	1.80	1966	0.83	1972
9	1.61	2003	1.13	1960	0.87	1915	1.10	1965
10	1.40	1924	0.58	1985	1.90	1923	0.97	1961
11	1.97	1985	1.52	1899	3.21	1978	0.98	1927
12	1.80	1927	1.10	1899	2.00	2003	0.88	1937
13	2.75	1941	1.31	1941	0.75	1910	1.52	1967
14	1.50	1999	0.74	1899	1.96	1991	1.41	1967
15	0.46	1906	0.82	1994	1.25	1991	2.08	1908
16	0.60	1925	1.77	1971	0.71	1969	1.74	1908
17	1.71	1925	0.97	1907	1.30	1953	1.20	1978
18	2.11	1965	1.75	1949	0.66	1973	2.65	1978
19	1.03	2004	1.52	1972	0.49	1940	2.32	1967
20	1.52	1952	1.18	1979	1.85	1902	1.16	1968
21	0.81	1990	0.94	2004	1.50	2004	1.03	1909
22	1.03	1958	0.60	2000	0.68	1965	1.50	1965
23	2.71	1983	0.57	1921	1.64	1906	1.38	1945
24	1.65	1900	2.42	1992	0.55	1918	0.44	1959
25	1.00	1986	1.48	1998	2.00	1985	1.31	1940
26	1.35	1997	0.67	1982	1.85	1919	1.83	1971
27	1.56	1903	0.82	1991	2.96	1919	1.22	1984
28	1.79	1958	1.61	2004	1.86	1975	2.50	1992
29	1.70	1971	1.24	1987	1.42	1985	3.33	2004
30	1.75	1983	1.54	1920	2.13	1982	2.95	1951
31			1.79	1987			1.22	1915
Month	2.84	1970	2.42	1992	3.21	1978	3.33	2004

MAXIMUM AND MINIMUM PRECIPITATION BY MONTHS
WITH YEAR OF OCCURRENCE
(SEPTEMBER 1898 - JULY 2005)

		Maximum Monthly Precipitation		Minimum Monthly Precipitation	
	Normal*	Amount	Year	Amount	Year
JANUARY	2.18"	9.55"	1993	0.00"	1972
		8.16"	1916	0.02"	2002
		7.21"	1949	0.02"	1912
		6.58"	2005	0.08"	1971
		6.52"	1980	0.13"	1925
FEBRUARY	2.56"	10.05"	1993	Trace	1967
		8.36"	1901	0.02"	1972
		7.81"	1980	0.02"	1912
		5.96"	1976	0.07"	2002
		5.79	1905	0.08"	1924
MARCH	2.62"	6.75"	1970	Trace	1972
		6.18"	1973	0.03"	1997
		6.05"	1906	0.06"	1933
		6.00"	1991	0.08"	1959
		5.69"	1982	0.12"	1956
APRIL	1.29"	5.62"	1965	Trace	1991
		4.47"	1917	0.01"	1989
		4.21"	1900	0.06"	1916
		3.85"	1903	0.07"	1996
		3.83"	1988	0.09"	1962
MAY	0.80"	4.14"	1992	0.00"	2004
		2.40"	1915	0.00”	2002
		2.27"	1901	Trace	1996
		2.16"	1979	Trace	1974
		2.02"	1957	Trace	1970!
JUNE	0.43"	2.92"	1955	0.00"	2002
		2.79"	1956	0.00"	1998
		2.19"	1949	0.00"	1971
		1.93"	1972	0.00"	1942
		1.88"	1903	0.00"	1917!

*Climatological Standard Normals 1971-2000.
! Also occurred in earlier years.

MAXIMUM AND MINIMUM PRECIPITATION BY MONTHS
WITH YEAR OF OCCURRENCE
(SEPTEMBER 1898 - JULY 2005)

		Maximum Monthly Precipitation		Minimum Monthly Precipitation	
	Normal*	Amount	Year	Amount	Year
JULY	2.40"	7.58"	1919	Trace	1993
		6.62"	1986	0.21"	1997
		6.06"	1930	0.23"	1900
		5.93"	1917	0.30"	2000
		5.53"	1911	0.32"	1963
AUGUST	2.89"	8.77"	1904	0.26"	1962
		8.06"	1986	0.37"	1924
		6.73"	1909	0.54"	1915
		6.10"	1902	0.58"	1976
		5.80"	1992	0.61"	1912
SEPTEMBER	2.12"	6.75"	1983	Trace	1992
		6.60"	1958	Trace	1973
		6.18"	1990	Trace	1957
		4.85"	1965	Trace	1955
		4.80"	1986	0.02"	1956
OCTOBER	1.93"	9.86"	1972	0.00"	1917
		4.90"	1941	0.00"	1902
		4.89"	1899	Trace	1999
		4.64"	1987	Trace	1952
		4.58"	1907	Trace	1950!
NOVEMBER	1.86"	7.10"	1905	0.00"	1999
		6.75"	1902	0.00"	1932
		6.64"	1985	0.00"	1916
		6.16"	1978	0.00"	1904
		5.50"	1919	0.00"	1903
DECEMBER	1.83"	7.30"	1967	0.00"	1917
		6.78"	1992	Trace	1999
		6.63"	1965	Trace	1958
		6.17"	1966	0.01"	1929
		5.74"	1908	0.03"	1939

*Climatological Standard Normals 1971-2000.
! Also occurred in earlier years.

WETTEST AND DRIEST
WINTER, SPRING, SUMMER, FALL
(SEPTEMBER 1898 - JULY 2005)

WINTER
(DECEMBER 21 - MARCH 20)
Average = 7.21"

Wettest		Driest	
Amount	Year	Amount	Year
23.27"	1992-93	0.72"	2001-02
18.66"	1979-80	1.24"	1998-99
16.44"	2004-05	1.41"	1933-34
14.13"	1977-78	1.65"	1899-00
13.50"	1915-16	1.88"	1966-67
12.78"	1904-05	1.97"	1995-96
12.29"	1981-82	1.98"	1983-84
12.27"	1968-69	1.99"	1952-53
12.00"	1948-49	2.09"	1903-04
11.75"	1900-01	2.30"	1963-64

SPRING
(MARCH 21 - JUNE 20)
Average = 3.06"

Wettest		Driest	
Amount	Year	Amount	Year
9.75"	1903	0.20"	1996
8.75"	1965	0.46"	1966
7.19"	1992	0.63"	1974
6.49"	1915	0.65"	1918
5.88"	1900	0.85"	2002
5.22"	1917	0.93"	1913
5.11"	1973	1.00"	1942
5.09"	1998	1.02"	1948
5.00"	1964	1.02"	1928
4.99"	1926	1.03"	1956

*Averages based on climatological normals from 1971-2000.

WETTEST AND DRIEST
WINTER, SPRING, SUMMER, FALL
(SEPTEMBER 1898 - JULY 2005)

SUMMER
(JUNE 21 - SEPTEMBER 20)
Average = 7.04"

Wettest		Driest	
Amount	Year	Amount	Year
16.29"	1986	2.28"	1978
13.81"	1904	2.76"	1944
11.79"	1998	2.85"	1991
11.56"	1970	3.12"	1973
11.48"	1927	3.22"	1957
11.34"	1990	3.33"	1979
11.14"	1919	3.51"	1900
10.32"	1909	3.54"	1926
10.11"	1951	3.58"	1948
10.02"	1911	3.80"	1942

FALL
(SEPTEMBER 21 - DECEMBER 20)
Average = 5.60"

Wettest		Driest	
Amount	Year	Amount	Year
14.60"	1972	0.23"	1929
12.13"	1978	0.45"	1950
10.70"	1905	0.62"	1904
10.50"	1919	0.68"	1917
9.88"	1987	1.14"	1956
9.55"	1967	1.38"	1945
9.53"	1985	1.49"	1999
9.51"	1966	1.52"	1989
9.49"	1983	1.56"	1898
9.24"	1982	1.59"	1976

*Averages based on climatological normals 1971-2000

FLAGSTAFF ARIZONA YEARLY PRECIPITATION RECORD
(1899-2004)

1899	19.32"				
1900	16.57"	1935	16.42"	1970	24.02"
1901	21.48"	1936	19.30"	1971	21.01"
1902	25.86"	1937	19.41"	1972	24.67"
1903	25.05"	1938	20.48"	1973	19.71
1904	20.07"	1939	12.91"	1974	17.41"
1905	34.53"	1940	21.22"	1975	20.10"
1906	22.70"	1941	25.02"	1976	20.12"
1907	25.02"	1942	9.90"	1977	18.77"
1908	25.91"	1943	17.34"	1978	30.72"
1909	22.75"	1944	17.50"	1979	19.68"
1910	18.25"	1945	17.62"	1980	29.30"
1911	26.00"	1946	21.74"	1981	23.37"
1912	17.69"	1947	13.14"	1982	31.09"
1913	15.27"	1948	15.39"	1983	29.47"
1914	17.40"	1949	26.79"	1984	20.09"
1915	25.54"	1950	10.76"	1985	26.67"
1916	23.38"	1951	25.79"	1986	32.39"
1917	18.82"	1952	20.06"	1987	23.98"
1918	21.29"	1953	12.81"	1988	21.68"
1919	28.28"	1954	19.55"	1989	14.44"
1920	19.33"	1955	17.97"	1990	25.67"
1921	22.93"	1956	10.37"	1991	21.83"
1922	25.07"	1957	24.26"	1992	34.71"
1923	21.07"	1958	21.22"	1993	35.60"
1924	16.74"	1959	20.42"	1994	21.95"
1925	19.08"	1960	16.66"	1995	19.09"
1926	16.58"	1961	18.95"	1996	11.81"
1927	24.03"	1962	18.11"	1997	17.84"
1928	14.88"	1963	14.53"	1998	27.37"
1929	15.52"	1964	19.04"	1999	15.79"
1930	21.24"	1965	36.59"	2000	15.40"
1931	20.34"	1966	20.28"	2001	17.60"
1932	21.94"	1967	22.27"	2002	12.89”
1933	15.60"	1968	16.53"	2003	17.91”
1934	14.80"	1969	23.31"	2004	23.61”

15 WETTEST CALENDAR YEARS
(JANUARY 1899 - DECEMBER 2004)

Rank	Amount	Year
1	36.59"	1965
2	35.60"	1993
3	34.71"	1992
4	34.53"	1905
5	32.39"	1986
6	31.09"	1982
7	30.72"	1978
8	29.47"	1983
9	29.30"	1980
10	28.28"	1919
11	27.37"	1998
12	26.79"	1949
13	26.67"	1985
14	26.00"	1911
15	25.91"	1908

15 DRIEST CALENDAR YEARS
(JANUARY 1899 - DECEMBER 2004)

Rank	Amount	Year
1	9.90"	1942
2	10.37"	1956
3	10.76"	1950
4	11.81"	1996
5	12.81"	1953
6	12.89”	2002
7	12.91"	1939
8	13.14"	1947
9	14.44"	1989
10	14.53"	1963
11	14.80"	1934
12	14.88"	1928
13	15.27"	1913
14	15.39"	1948
15	15.40"	2000

*AVERAGE ANNUAL PRECIPITATION: 22.91"

- Based on the 30 year average annual precipitation from 1971-2000.

GREATEST NUMBER OF DAYS WITH 0.01 INCH OR MORE AND 0.10 INCH OR MORE BY MONTH AND YEAR OF OCCURRENCE (SEPTEMBER 1898 – JULY 2005)

	0.01 Inch or more			0.10 Inch or more		
Month	Average # of Days	Greatest # of Days	Year	Average # of Days	Greatest # of Days	Year
January	7.4	18	1993	4.6	17	1993
February	7.4	16	2005*	5.0	14	1905
March	8.0	21	1973	5.2	15	1973
April	6.0	20	1926	3.5	11	1926
May	3.9	15	1992	2.0	11	1992
June	2.9	10	1988	1.4	8	1972
July	11.6	21	1959	6.6	16	1919
August	12.4	23	1904	7.2	18	1904
September	7.0	16	1997	4.0	13	1996
October	5.1	15	1972	3.2	13	1972
November	4.8	15	1931	3.1	11	1905
December	6.6	18	1984	4.2	12	1984
Annual	83.3!	121	1941	50.2!	73	1905

GREATEST NUMBER OF DAYS WITH 0.25 INCH OR MORE AND 0.50 INCH OR MORE BY MONTH AND YEAR OF OCCURRENCE (SEPTEMBER 1898 – JULY 2005)

	0.25 Inch or more			0.50 Inch or more		
Month	Average # of Days	Greatest # of Days	Year	Average # of Days	Greatest # of Days	Year
January	2.7	11	1993	1.3	7	1993*
February	2.9	10	1905	1.2	6	1980*
March	3.0	9	1992*	1.2	5	1978*
April	1.9	8	1965	0.7	6	1965
May	0.9	6	1992	0.4	3	1992*
June	0.6	4	1903	0.2	2	1988*
July	3.7	14	1919	1.6	5	1936*
August	3.8	10	1934*	1.7	6	1909*
September	2.3	9	1939	1.1	5	1958
October	2.0	9	1972*	1.1	6	1972
November	1.9	9	1905	0.9	5	1905
December	2.5	9	1965	1.0	5	1966*
Annual	28.3!	47	1905	12.6!	24	1965

* Also recorded in earlier years.
! May be different than sum of average number of days due to rounding.

GREATEST NUMBER OF CONSECUTIVE DAYS WITH 0.01 INCH OR MORE
(Periods with 10 or more days tabulated)
(SEPTEMBER 1898 - JULY 2005)

Days	Period	Total Precipitation
18	August 23 – September 9, 2003	3.73”
17	July 20 - August 5, 1968	3.29"
13	July 18 - July 30, 1959	1.85"
13	August 23 - September 4, 1925	1.96"
12	July 30 - August 10, 2001	3.43"
11	February 7 - February 17, 1992	3.69"
11	January 19 - January 29, 1969	4.05"
11	January 9 - January 19, 1949	4.52"
11	July 10 - July 20, 1919	4.32"
10	February 13 - February 22, 1980	7.81"
10	August 8 - August 17, 1947	3.21"
10	December 24, 1941 - January 2, 1942	1.56"
10	April 26 - May 5, 1926	1.36"
10	July 17 - July 26, 1909	1.61"
10	July 26 - August 4, 1908	3.30"

GREATEST NUMBER OF CONSECUTIVE DAYS WITH 0.25 INCH OR MORE
(Periods with 4 days or more tabulated)
(SEPTEMBER 1898 - JULY 2005)

Days	Period	Total Precipitation
7	December 13 - December 19, 1967	7.06"
7	July 10 - July 16, 1919	3.50"
6	July 20 - July 25, 1915	4.38"
5	February 17 - February 21, 1980	4.36"
5	October 31 - November 4, 1957	4.57"
5	February 13 - February 17, 1927	3.92"
4	August 7 - August 10, 2001	2.13"
4	February 27 - March 2, 1978	3.75"
4	April 13 - April 16, 1976	2.86"
4	October 27 - October 30, 1974	2.76"
4	July 28 - July 31, 1968	1.55"
4	November 22 - November 25, 1965	4.49"
4	April 1 - April 4, 1965	3.11"
4	March 22 - March 25, 1954	3.08"
4	January 25 - January 28, 1916	3.92"
4	July 24 - July 27, 1912	2.30"
4	December 14 - December 17, 1908	4.38"

GREATEST NUMBER OF CONSECUTIVE DAYS WITH 0.50 INCH OR MORE
(Periods with 4 or more days tabulated)
(SEPTEMBER 1898 - JULY 2005)

Days	Period	Total Precipitation
4	February 18 - February 21, 1980	4.06"
4	January 25 - January 28, 1916	3.92"
4	July 22 - July 25, 1915	3.65"
4	October 11 - October 14, 1899	4.61"

GREATEST NUMBER OF CONSECUTIVE DAYS WITH 0.75 INCH OR MORE
(Periods with 3 or more days tabulated)
(SEPTEMBER 1898 - JULY 2005)

Days	Period	Total Precipitation
3	December 5 - December 7, 1966	4.79"
3	January 6 - January 8, 1993	3.89"
3	February 28 - March 2, 1978	3.47"
3	July 23 - July 25, 1915	3.03"
3	March 24 - March 26, 1906	2.62"
3	October 11 - October 13, 1899	3.87"

GREATEST NUMBER OF CONSECUTIVE DAYS WITHOUT MEASURABLE PRECIPITATION (Less than 0.01 inch) DURING AN ENTIRE YEAR
(SEPTEMBER 1898 - JULY 2005)

Days	Period	Days	Period
99	September 24 - December 31, 1999	67	April 27 - July 3, 2002
93	April 3 - July 4, 1974	64	February 7 - April 10, 1972
77	October 3 - December 18, 1903	63	March 29 - May 30, 1991
77	September 10 - November 25, 1898	63	October 26 - December 27, 1989
75	April 19 - July 2, 1996	62	May 1 - July 1, 1942
69	April 21 - June 28, 1966	61	May 10 - July 9, 1963

EXCESSIVE STORMS*
SEPTEMBER 1898 – JULY 2005
(tabulated only for storms* with 3.50" or greater total precipitation)

Days	Period	Total Precip	Highest daily total
10	February 13 - February 22, 1980	7.80"	2.37"
8	December 13 - December 20, 1967	7.20"	2.32"
8	February 14 - February 21, 1993	6.48"	3.93"
5	December 3 - December 7, 1966	5.50"	2.87"
9	January 6 - January 14, 1993	5.40"	1.65"
8	February 27 - March 6, 1978	5.12"	1.41"
7	October 31 - November 6, 1957	4.76"	1.46"
5	October 3 - October 7, 1972	4.70"	1.70"
11	January 9 - January 19, 1949	4.51"	1.09"
7	July 20 - July 26, 1915	4.48"	1.19"
6	January 25 - January 30, 1916	4.32"	1.81"
9	August 21 - August 29, 1904	4.32"	1.44"
11	July 10 - July 20, 1919	4.29"	0.76"
7	February 11 - February 17, 1927	4.20"	1.40"
11	January 19 - January 29, 1969	4.07"	1.30"
8	September 5 – September 12, 2002	3.90”	1.12”
2	December 28 – December 29, 2004	3.88”	3.33”
6	October 15 - October 20, 1972	3.78"	1.52"
11	February 7 - February 17, 1992	3.74"	1.84"
17	July 20 - August 5, 1968	3.74"	0.50"
18	August 23 – September 9, 2003	3.73”	1.61”
6	March 11 - March 16, 1982	3.66"	1.91"
6	February 27 - March 4, 1938	3.60"	2.11"
7	January 14 - January 20, 1916	3.50"	1.32"

* An excessive storm has been defined as a period of time where measurable precipitation falls on consecutive days, leading to 3.50 inches or greater accumulation by the time the precipitation ends.

GREATEST DAILY 24-HOUR SNOWFALL (INCHES)
(Midnight - Midnight)
SEPTEMBER 1898 - JULY 2005

	JANUARY		FEBRUARY		MARCH		APRIL	
Date	24 Hr Snow	Year	24 Hr Snow	Year	24 Hr Snow	Year	24 Hr Snow	Year
1	9.8	1907	13.6	1990	26.0	1970	9.0	1999
2	6.2	1990	24.0	1901	9.5	1964	17.8	1997
3	13.6	2005	13.5	1901	11.9	1976	10.2	1965
4	18.8	2005	11.0	2004	11.0	1923	9.8	1999
5	12.1	1974	19.9	1976	7.0	2004	4.0	1999
6	13.0	1992	15.2	1965	14.3	2000	7.2	2001
7	16.5	1937	12.4	1901	7.6	2000	6.0	1998
8	9.1	1985	11.0	1939	13.8	1992	7.4	1975
9	8.8	1980	7.6	1959	8.9	1948	9.9	1965
10	15.1	1949	15.0	1978	17.5	1969	7.8	1965
11	10.0	1930	8.7	1973	19.3	1952	6.0	1967
12	8.2	1960	6.1	1959	10.0	1973	12.0	1941
13	16.4	1997	9.5	1992	7.1	1990	5.4	1976
14	3.7	1993	16.0	2001	13.0	1944	7.8	1976
15	8.9	1978	10.0	1932	10.6	1987	5.0	1976
16	13.0	1928	5.2	1975	17.6	1986	15.0	1917
17	14.7	1988	4.8	1971	5.8	1963	10.0	1988
18	13.2	1980	16.0	1917	8.7	1982	9.3	1968
19	11.0	1935	11.8	1990	9.0	1980	5.0	1966
20	7.1	1954	8.7	1987	7.8	1981	8.9	1995
21	15.6	1982	10.0	#1944	15.4	1991	11.1	1988
22	7.5	1964	8.0	1913	12.2	1973	7.5	1988
23	17.3	1943	6.0	1948	11.4	1964	3.2	1900
24	19.9	1949	21.1	1987	11.2	1902	4.9	1994
25	16.0	1923	12.4	1998	12.0	1903	4.1	1994
26	13.1	1948	6.1	1962	14.9	1991	8.5	1985
27	16.0	1916	8.4	1951	6.6	1998	8.7	1994
28	7.2	1979	11.0	1991	11.6	1973	10.1	1900
29	18.0	1915	6.4	1960	12.8	1998	9.5	1951
30	9.6	1980			8.9	1970	10.0	1915
31	12.0	1922			6.9	1970		
Month	19.9	1949	24.0	1901	26.0	1970	17.8	1997

Occurred in previous years

GREATEST DAILY 24-HOUR SNOWFALL (INCHES)
(Midnight - Midnight)
SEPTEMBER 1898 – JULY 2005

	MAY		JUNE		JULY		AUGUST	
Date	24 Hr Snow	Year	24 Hr Snow	Year	24 Hr Snow	Year	24 Hr Snow	Year
1	5.0	1915						
2	7.5	1901	TR	1992				
3	9.0	1904	TR	1949				
4	3.9	1905	TR	#1999				
5	4.6	1969	TR	#1999				
6	4.5	1949	TR					
7	2.1	1964	TR	1992				
8	4.7	1979	0.5	1907				
9	0.5	1922						
10	TR	#1991	TR	1949				
11	0.3	1957						
12	2.0	1968						
13	3.1	1961						
14	0.3	1998						
15	6.0	1951						
16	1.9	1944						
17	9.0	1903						
18	0.2	1903						
19	0.9	1917						
20	0.4	1975						
21	4.7	1975	TR	1947				
22	TR	1975						
23	0.3	1906						
24	6.6	1965						
25	TR	#1996						
26	TR	1993						
27	0.8	1962						
28	2.0	1962						
29	2.5	1971						
30	TR	1988						
31	TR	#1991						
Month	9.0	1903	0.5	1907	0.0	ALL	0.0	ALL

Occurred during previous years

TR = TRACE

GREATEST DAILY 24-HOUR SNOWFALL (INCHES)
(Midnight - Midnight)
SEPTEMBER 1898 - JULY 2005

	SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Date	24 Hr Snow	Year	24 Hr Snow	Year	24 Hr Snow	Year	24 Hr Snow	Year
1			0.3	1959	1.0	#2000	4.2	1982
2			0.2	1907	8.0	1974	4.5	1947
3			0.2	1986	6.0	1922	6.1	1961
4			TR	1946	5.0	1925	14.6	1992
5			3.6	1912	3.9	1944	8.5	1992
6			0.7	1912	6.2	1977	11.5	1943
7					2.0	1946	5.0	1956
8			5.0	1961	11.2	1966	8.3	1972
9			2.0	1961	1.8	1947	14.0	1931
10			TR	1930	6.2	1982	9.6	1961
11			0.6	1997	11.2	1972	9.6	2001
12	TR	1909	0.2	1947	18.4	1985	14.0	1932
13			TR	1947	5.0	1961	26.8	1967
14			0.5	1923	12.8	1993	15.5	1967
15			4.5	1980	11.8	1991	8.0	1915
16			5.9	1971	11.5	1958	7.2	1990
17			6.7	1971	4.7	1972	10.0	1924
18	TR	1950	5.5	1908	6.5		7.2	#2002
19	2.0	1965	4.7	1949	5.5	1979	22.7	1967
20			7.0	1920	20.0	1902	11.2	1968
21			5.5	2004	15.4	1905	19.6	1909
22			0.8	1941	5.0	#1902	12.7	1965
23	TR	1989	TR	1941	11.5	1906	9.7	1982
24	0.9	1986	1.0	1920	15.5	1906	4.0	1914
25			9.1	1972	8.0	1983	12.0	1916
26			2.4	1980	6.4	1990	14.1	1979
27	TR	1982	1.5	1940	23.0	1919	4.7	1946
28			9.8	2004	14.2	1975	9.2	1936
29	0.3	1905	6.0	1922	12.1	1985	12.5	1989
30			9.5	1974	13.4	1982	31.0	1915
31			9.0	1920			20.0	1915
Month	2.0	1965	9.8	2004	23.0	1919	31.0	1915

Occurred during previous years

TR = TRACE

MAXIMUM MONTHLY SNOWFALL
WITH YEAR OF OCCURRENCE
(SEPTEMBER 1898 - JULY 2005)

	Normal*	Amount	Year
JANUARY	22.4"	104.8"	1949
		63.4"	1980
		59.4"	1979
		56.3”	2005
		55.7"	1993
FEBRUARY	20.8"	84.3"	1901
		45.5"	1990
		42.1"	1969
		41.0"	1998
		40.7"	1987
MARCH	23.9"	79.4"	1991
		77.4"	1973
		67.3"	1970
		48.4"	2000
		45.6"	1981
APRIL	11.8"	58.3"	1965
		41.8"	1999
		40.3"	1900
		34.5"	1917
		33.1"	1988
MAY	1.2"	15.0"	1904
		10.2"	1903
		10.0"	1908
		9.0"	1905
		8.5"	1915
JUNE	0.0"	0.5"	1907
		TR	1999
		TR	1993
		TR	1992
		TR	1949!

* Monthly normals calculated from period 1971-2000.
! Also occurred in earlier years.

MAXIMUM MONTHLY SNOWFALL
WITH YEAR OF OCCURRENCE
(SEPTEMBER 1898 - JULY 2005)

	Normal*	Amount	Year
JULY	0.0"	0.0"	ALL
AUGUST	0.0"	0.0"	ALL
SEPTEMBER	TR	2.0"	1965
		0.9"	1986
		0.3"	1905
		TR	1991
		TR	1990!
OCTOBER	3.3"	24.7"	1971
		19.0"	1920
		16.6"	1974
		15.3”	2004
		11.8"	1972
NOVEMBER	12.2"	42.6"	1902
		40.7"	1985
		39.5"	1991
		30.3"	1919
		27.9"	1906
DECEMBER	13.8"	86.0"	1967
		66.3"	1915
		41.7"	1992
		38.5"	1965
		30.7"	1909

* Monthly normals calculated from period 1971-2000.
! Also occurred in earlier years.

FIRST AND LAST SNOWFALLS
(1899-2004)

Average first date for measurable snowfall.....October 11
Average last date for measurable snowfall.....May 12

Average snowfall season length.....214 days
Earliest date of first measurable snowfall.....September 19, 1965
Latest date of last measurable snowfall.....June 8, 1907

FLAGSTAFF SEASONAL SNOWFALL*
(1899-2005)

1900	70.0"!	1935	44.1"	1970	95.7"	2005	130.6”
1901	124.5"	1936	16.0"	1971	56.6"		
1902	76.8"	1937	97.6"	1972	50.3"		
1903	128.3"	1938	42.0"	1973	210.0"		
1904	41.4"	1939	70.2"	1974	70.0"		
1905	92.2"	1940	48.4"	1975	141.1"		
1906	63.8"	1941	61.5"	1976	131.6"		
1907	86.4"	1942	65.0"	1977	70.2"		
1908	69.2"	1943	64.4"	1978	116.2"		
1909	73.4"	1944	99.5"	1979	145.5"		
1910	82.9"	1945	84.0"	1980	177.1"		
1911	34.3"	1946	51.5"	1981	92.4"		
1912	70.6"	1947	32.4"	1982	122.4"		
1913	65.4"	1948	107.0"	1983	142.6"		
1914	39.6"	1949	167.0"	1984	32.0"		
1915	117.0"	1950	63.3"	1985	136.0"		
1916	129.5"	1951	73.8"	1986	105.4"		
1917	111.1"	1952	105.9"	1987	121.6"		
1918	28.7"	1953	60.0"	1988	104.5"		
1919	69.8"	1954	89.0"	1989	77.7"		
1920	74.7"	1955	67.6"	1990	113.4"		
1921	53.3"	1956	42.7"	1991	127.9"		
1922	96.6"	1957	53.0"	1992	158.9"		
1923	96.7"	1958	71.5"	1993	150.0"		
1924	54.5"	1959	53.8"	1994	109.5"		
1925	49.5"	1960	77.6"	1995	99.1"!		
1926	29.3"	1961	53.9"	1996	28.5"!		
1927	48.7"	1962	128.9"	1997	107.5"!		
1928	39.0"	1963	47.3"	1998	136.7"		
1929	50.0"	1964	89.4"	1999	72.0"		
1930	57.3"	1965	166.7"	2000	74.4"		
1931	18.0"	1966	83.4"	2001	125.1"		
1932	92.9"	1967	63.1"	2002	38.9"		
1933	66.0"	1968	150.4"	2003	54.9”		
1934	11.2"	1969	134.7"	2004	50.9”		

* Snowfall season is the period of July through June ending in the year indicated.
! Estimated

15 SNOWIEST SEASONS
(JULY 1899 - JUNE 2005)

Rank	Amount	Year
1	210.0"	1972-1973
2	177.1"	1979-1980
3	167.0"	1948-1949
4	166.7"	1964-1965
5	158.9"	1991-1992
6	150.4"	1967-1968
7	150.0"	1992-1993
8	145.5"	1978-1979
9	142.6"	1982-1983
10	141.1"	1974-1975
11	136.7"	1997-1998
12	136.0"	1984-1985
13	134.7"	1968-1969
14	131.6"	1975-1976
15	130.6"	2004-2005

15 LEAST SNOWIEST SEASONS
(JULY 1899 - JUNE 2005)

Rank	Amount	Year
1	11.2"	1933-1934
2	16.0"	1935-1936
3	18.0"	1930-1931
4	28.5"	1995-1996
5	28.7"	1917-1918
6	29.3"	1925-1926
7	32.0"	1983-1984
8	32.4"	1946-1947
9	34.3"	1910-1911
10	38.9"	2001-2002
11	39.0"	1927-1928
12	39.6"	1913-1914
13	41.4"	1903-1904
14	42.0"	1937-1938
15	42.7"	1955-1956

*AVERAGE SEASONAL SNOWFALL: 109.4"

- Based on the 30 year average seasonal snowfall from 1971-2000.

GREATEST NUMBER OF DAYS WITH SNOWFALL OF ONE INCH OR MORE AND FOUR INCHES OR MORE BY MONTH AND YEAR OF OCCURRENCE (JANUARY 1950 – JULY 2005)

	One Inch or more			Four Inches or more		
Month	Average # of Days	Greatest # of Days	Year	Average # of Days	Greatest # of Days	Year
January	4.2	16	1993	2.0	7	1955
February	4.0	11	1993	1.6	5	1990*
March	4.7	16	1973	2.1	7	1991*
April	2.4	10	1965	1.1	6	1965
May	0.4	3	1971	0.1	1	1979*
June	0.0	0		0.0	0	
July	0.0	0		0.0	0	
August	0.0	0		0.0	0	
September	0.0	1	1965	0.0	0	
October	0.6	6	1971	0.3	3	1971
November	2.2	5	1993*	0.9	4	1973
December	3.4	11	1984	1.3	6	1967
Annual	21.9!	41	1973	9.2!	18	1980

GREATEST NUMBER OF DAYS WITH SNOWFALL OF SIX INCHES OR MORE AND TEN INCHES OR MORE BY MONTH AND YEAR OF OCCURRENCE (JANUARY 1950 – JULY 2005)

	Six Inches or more			Ten Inches or more		
Month	Average # of Days	Greatest # of Days	Year	Average # of Days	Greatest # of Days	Year
January	1.1	5	1980*	0.3	2	2005*
February	0.8	3	1990*	0.3	2	1990*
March	1.0	4	2000*	0.3	3	1991*
April	0.6	5	1965	0.1	2	1988
May	0.0	1	1965*	0.0	0	
June	0.0	0		0.0	0	
July	0.0	0		0.0	0	
August	0.0	0		0.0	0	
September	0.0	0		0.0	0	
October	0.1	1	2004*	0.0	0	
November	0.5	3	1991	0.2	3	1991
December	0.7	4	1967	0.2	3	1967
Annual	4.8!	11	1980*	1.4!	7	1991

* Also recorded in earlier years.
! May be different than sum of average number of days due to rounding.

SNOWIEST CALENDAR DAYS IN FLAGSTAFF
(SEPTEMBER 1898 - JULY 2005)
(Midnight To Midnight)

Rank	Amount	Date
1	31.0"	Dec 30, 1915
2	26.8"	Dec 13, 1967
3	26.0"	Mar 1, 1970
4	24.0"	Feb 2, 1901
5	23.0"	Nov 27, 1919
6	22.7"	Dec 19, 1967
7	21.1"	Feb 24, 1987
8	20.0"	Dec 31, 1915
9	20.0"	Nov 20, 1902
10	19.9"	Feb 5, 1976
11	19.9"	Jan 24, 1949
12	19.6"	Dec 21, 1909
13	19.3"	Mar 11, 1952
14	18.8"	Jan 4, 2005
15	18.4"	Feb 2, 1988

SNOWIEST CONSECUTIVE TWO CALENDAR DAYS IN FLAGSTAFF
(SEPTEMBER 1898 - JULY 2005)
(tabulated only for events with 25" or greater)

Amount	Date
51.0"	December 30 – December 31, 1915
42.3"	December 13 – December 14, 1967
37.5"	February 2 – February 3, 1901
35.1"	January 23 – January 24, 1949
34.0"	December 29 – December 30, 1915
33.0"	November 20 – November 21, 1902
32.4"	January 3 – January 4, 2005
32.0"	February 1 – February 2, 1901
31.9"	March 1 – March 2, 1970
29.9"	December 18 – December 19, 1967
29.1"	February 28 – March 1, 1991
28.1"	January 24 – January 25, 1949
28.0"	January 26 – January 27, 1916
27.0"	November 23 – November 24, 1906
26.7"	February 24 – February 25, 1987
26.0”	November 27 – November 28, 1919

EXCESSIVE SNOWSTORMS* AT FLAGSTAFF
(JANUARY 1899- JULY 2005)
(tabulated only for storms* with 25" or greater)

Days	Period	Total Snow	Highest daily total
8	December 13 - December 20, 1967	84.6"	26.8"
3	December 29 - December 31, 1915	54.0"	31.0"
9	January 9 - January 17, 1949	48.4"	15.1"
4	February 1 - February 4, 1901	47.4"	24.0"
4	January 22 - January 25, 1949	43.5"	19.9"
5	April 1 -April 5, 1999	41.3"	11.0"
6	January 25 - January 30, 1916	39.0"	16.0"
4	November 20 - November 23, 1902	38.6"	20.0"
3	January 3 – January 5, 2005	35.0”	18.8”
6	February 6 - February 11, 1901	33.6"	12.4"
4	February 28 - March 3, 1970	33.3"	26.0"
6	April 7 - April 12, 1965	32.6"	9.9"
8	December 25 - January 1, 1937	32.2"	10.8"
3	February 28 – March 2, 1991	31.5”	18.1”
4	February 23 - February 26, 1987	31.2"	21.1"
5	January 14 - January 18, 1979	30.7"	14.3"
5	April 1 - April 5, 1997	29.7"	17.8"
8	January 15 - January 22, 1917	29.7"	12.0"
4	April 13 - April 16, 1976	28.7"	10.5"
6	March 5 - March 10, 2000	28.3"	14.3"
3	April 15 - April 17, 1917	27.5"	15.0"
3	November 23 - November 25, 1906	27.2"	15.5"
3	January 28 - January 30, 1980	27.1"	15.3"
3	February 4 - February 6, 1976	26.9"	19.9"
6	January 20 - January 25, 1962	26.7"	13.7"
9	December 30 - January 7, 1982	26.6"	9.4"
5	January 10 - January 14, 1930	26.5"	10.0"
5	March 26 - March 30, 1998	26.4"	12.8"
2	November 27 - November 28, 1919	26.0"	23.0"
3	January 22 - January 24, 1943	25.9"	17.3"
5	April 1 - April 5, 1965	25.7"	10.2"
3	November 27 - November 29, 1975	25.2"	14.2"

* An excessive snowstorm has been defined as a period of time where measurable snowfall occurs on consecutive days, leading to 25 inches or greater accumulation by the time the snowfall ends.

AVERAGE NUMBER OF DAYS WITH SNOWFALL OF 1 INCH OR MORE
(1950-2004)

JANUARY	4.2
FEBRUARY	4.0
MARCH	4.7
APRIL	2.4
MAY	0.4
JUNE	0
JULY	0
AUGUST	0
SEPTEMBER	*
OCTOBER	0.6
NOVEMBER	2.2
DECEMBER	3.4
ANNUAL	21.9

AVERAGE NUMBER OF DAYS WITH THUNDERSTORMS
(1965-1994)

JANUARY	*
FEBRUARY	0.3
MARCH	0.6
APRIL	1.3
MAY	2.6
JUNE	3.7
JULY	16.4
AUGUST	15.6
SEPTEMBER	6.7
OCTOBER	2.2
NOVEMBER	0.6
DECEMBER	0.2
ANNUAL	50.1

* Less than 0.1 occurrences.

IV. MISCELLANEOUS INFORMATION

SUNSHINE, CLOUDINESS, AND FOG AT FLAGSTAFF
(1965-1994)

	Sunshine		Sky Cover (Sunrise - Sunset)			Dense Fog
Month	Percent Possible Sunshine	Avg Amt of Sky Cover	Clear	Partly Cloudy	Cloudy	Number of Days
January	77%	5.2	12.4	6.3	12.3	1.8
February	73%	5.3	10.7	6.0	11.5	1.8
March	76%	5.3	11.6	7.8	11.6	1.6
April	82%	4.7	12.4	8.8	8.7	1.2
May	88%	4.1	15.2	9.3	6.5	0.2
June	86%	3.0	18.5	7.7	3.9	0
July	75%	5.3	9.1	13.1	8.8	0.2
August	76%	5.1	9.8	13.1	8.1	0.3
September	81%	3.7	15.7	9.6	4.7	0.5
October	79%	3.6	17.1	7.0	6.9	0.9
November	75%	4.2	15.4	6.6	8.0	1.2
December	73%	4.8	13.9	6.5	10.7	1.9
Annual	78%	4.5	161.8	101.7	101.6	11.5

Dense fog is defined as surface visibility restrictions of 1/4 mile or less for at least part of the day due to obscuration by cloud. Sky cover is expressed in a range from 0 to 10, with 0 representing no clouds or obscuring phenomena, and 10 representing a complete sky cover. A further break-down is as follows:

Clear	0/10 to 3/10 sky cover
Partly Cloudy	4/10 to 7/10 sky cover
Cloudy	8/10 to 10/10 sky cover

NORMAL HEATING DEGREE DAYS FOR FLAGSTAFF
(1971-2000)

JANUARY	1099
FEBRUARY	930
MARCH	880
APRIL	668
MAY	446
JUNE	174
JULY	33
AUGUST	56
SEPTEMBER	224
OCTOBER	554
NOVEMBER	850
DECEMBER	1085
ANNUAL	6999

NORMAL COOLING DEGREE DAYS FOR FLAGSTAFF
(1971-2000)

JANUARY	0
FEBRUARY	0
MARCH	0
APRIL	0
MAY	0
JUNE	23
JULY	64
AUGUST	36
SEPTEMBER	3
OCTOBER	0
NOVEMBER	0
DECEMBER	0
ANNUAL	126

A degree day is a measure of the departure of the average daily temperature from 65 degrees. Each degree that the daily temperature is below 65 degrees is equal to one heating degree day. Each degree that the daily temperature is above 65 degrees is equal to one cooling degree day. For example, if the average temperature on a particular day was 55 degrees, the heating degree days would be 10 (65-55). If the average daily temperature was 72 degrees, the cooling degree days would then be 7 (72-65). Each day of the month would be calculated in the same fashion, with negative differences counted as zero.

Heating and cooling degree days are useful in the computation of fuel and power consumption and are used by utility companies to determine heating and cooling requirements.

MONSOON STATISTICS
(1948-2004)
(Based on Phoenix Official Monsoon Data)

Average Starting Date of the Monsoon.....July 7
Average Ending Date of the Monsoon.....Sept 13

(based on criteria of three consecutive days with average dewpoint temperatures in Phoenix of 55 degrees or greater)

EARLIEST AND LATEST START DATES FOR THE MONSOON SEASON
(1948-2005)
(based on Phoenix Official Monsoon Data)

Earliest Start Date	Latest Start Date
June 17, 2000	July 25, 1987
June 19, 1958	July 21, 1997
June 21, 2001	July 21, 1960
June 23, 1954	July 19, 1980
June 25, 1999	July 19. 1963
June 25, 1984	July 18, 2005
June 27, 1966	July 18, 2003
June 27, 1962	July 17, 1994
June 28, 1959	July 17, 1979
June 29, 1990!	July 17, 1970!

EARLIEST AND LATEST END DATES FOR THE MONSOON SEASON
(1948-2004)
(based on Phoenix Official Monsoon Data)

Earliest End Date	Latest End Date
Aug 19, 2004	Oct 10, 1983
Aug 19, 1979	Oct 10, 1977
Aug 22, 1973	Oct 8, 1966
Aug 22, 1962	Oct 5, 1984
Aug 27, 1956	Sept 28, 1976
Aug 30, 1957	Sept 28, 1974
Aug 31, 2000	Sept 26, 1982
Aug 31, 1953	Sept 25, 1990
Sept 1, 1948	Sept 24, 1981
Sept 2, 1988!	Sept 24, 1952

! Also occurred in earlier years.

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

The daily values presented in these tables are not simple means of observed daily values. They are interpolated using a much less variable set of monthly normals calculated using the natural spline function.

In leap years, use the February 28th values for the 29th, and adjust the heating degree monthly totals accordingly.

Daily precipitation normals were also computed using the natural spline function and do not exhibit the typical daily random fluctuations. However, they may be used to compute normal precipitation over time intervals.

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

JANUARY

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	42	16	29	36	0	.06
2	42	16	29	36	0	.06
3	42	16	29	36	0	.06
4	42	16	29	36	0	.06
5	42	16	29	36	0	.06
6	42	16	29	36	0	.06
7	42	16	29	36	0	.06
8	42	16	29	36	0	.06
9	43	16	29	36	0	.07
10	43	16	29	36	0	.07
11	43	16	29	36	0	.07
12	43	16	29	36	0	.07
13	43	16	30	36	0	.07
14	43	16	30	36	0	.07
15	43	16	30	35	0	.07
16	43	16	30	35	0	.07
17	43	17	30	35	0	.07
18	43	17	30	35	0	.07
19	43	17	30	35	0	.07
20	43	17	30	35	0	.07
21	43	17	30	35	0	.07
22	43	17	30	35	0	.07
23	43	17	30	35	0	.08
24	43	17	30	35	0	.08
25	43	17	30	35	0	.08
26	43	17	30	35	0	.08
27	44	17	30	35	0	.08
28	44	17	30	35	0	.08
29	44	17	31	35	0	.08
30	44	17	31	35	0	.08
31	44	17	31	35	0	.08
TOTAL				1099	0	2.18
AVG	42.9	16.5	29.7			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

FEBRUARY

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	44	17	31	35	0	.08
2	44	18	31	35	0	.08
3	44	18	31	34	0	.08
4	44	18	31	34	0	.09
5	44	18	31	34	0	.09
6	45	18	31	34	0	.09
7	45	18	31	34	0	.09
8	45	18	31	34	0	.09
9	45	18	32	34	0	.09
10	45	18	32	34	0	.09
11	45	18	32	34	0	.09
12	45	18	32	34	0	.09
13	45	19	32	34	0	.09
14	46	19	32	33	0	.09
15	46	19	32	33	0	.09
16	46	19	32	33	0	.09
17	46	19	32	33	0	.09
18	46	19	33	33	0	.09
19	46	19	33	33	0	.09
20	46	19	33	33	0	.09
21	46	19	33	32	0	.09
22	47	20	33	32	0	.10
23	47	20	33	32	0	.10
24	47	20	33	32	0	.10
25	47	20	33	32	0	.10
26	47	20	34	32	0	.10
27	47	20	34	32	0	.10
28	47	20	34	31	0	.10
TOTAL				930	0	2.56
AVG	45.6	18.8	32.2			

In leap years, use the February 28 values for February 29 and adjust the monthly totals.

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

MARCH

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	47	21	34	31	0	.10
2	48	21	34	31	0	.10
3	48	21	34	31	0	.10
4	48	21	35	31	0	.10
5	48	21	35	30	0	.09
6	48	21	35	30	0	.09
7	48	22	35	30	0	.09
8	48	22	35	30	0	.09
9	49	22	35	30	0	.09
10	49	22	36	29	0	.09
11	49	22	36	29	0	.09
12	49	22	36	29	0	.09
13	49	22	36	29	0	.09
14	50	23	36	29	0	.09
15	50	23	36	29	0	.09
16	50	23	37	28	0	.09
17	50	23	37	28	0	.09
18	51	23	37	28	0	.08
19	51	23	37	28	0	.08
20	51	23	37	28	0	.08
21	51	23	37	27	0	.08
22	51	24	38	27	0	.08
23	52	24	38	27	0	.08
24	52	24	38	27	0	.08
25	52	24	38	27	0	.08
26	53	24	38	27	0	.07
27	53	24	39	26	0	.07
28	53	24	39	26	0	.07
29	53	25	39	26	0	.07
30	54	25	39	26	0	.07
31	54	25	39	26	0	.06
TOTAL				880	0	2.62
AVG	50.3	22.8	36.6			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

APRIL

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	54	25	40	25	0	.06
2	55	25	40	25	0	.06
3	55	25	40	25	0	.06
4	55	25	40	25	0	.06
5	55	25	40	25	0	.06
6	56	26	41	24	0	.05
7	56	26	41	24	0	.05
8	56	26	41	24	0	.05
9	57	26	41	24	0	.05
10	57	26	42	24	0	.05
11	57	26	42	23	0	.05
12	57	27	42	23	0	.04
13	58	27	42	23	0	.04
14	58	27	43	23	0	.04
15	58	27	43	22	0	.04
16	59	27	43	22	0	.04
17	59	27	43	22	0	.04
18	59	28	43	22	0	.04
19	59	28	44	22	0	.04
20	60	28	44	21	0	.04
21	60	28	44	21	0	.04
22	60	28	44	21	0	.04
23	61	29	45	21	0	.04
24	61	29	45	20	0	.03
25	61	29	45	20	0	.03
26	61	29	45	20	0	.03
27	62	30	46	20	0	.03
28	62	30	46	19	0	.03
29	62	30	46	19	0	.03
30	62	30	46	19	0	.03
TOTAL				668	0	1.29
AVG	58.4	27.3	42.9			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

MAY

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	63	31	47	19	0	.03
2	63	31	47	18	0	.03
3	63	31	47	18	0	.03
4	64	31	47	18	0	.03
5	64	31	48	18	0	.03
6	64	32	48	17	0	.03
7	64	32	48	17	0	.03
8	65	32	48	17	0	.03
9	65	32	49	16	0	.03
10	65	33	49	16	0	.03
11	66	33	49	16	0	.03
12	66	33	50	16	0	.03
13	66	33	50	15	0	.03
14	67	34	50	15	0	.03
15	67	34	50	15	0	.03
16	67	34	51	14	0	.03
17	68	34	51	14	0	.03
18	68	35	51	14	0	.03
19	68	35	52	14	0	.03
20	69	35	52	13	0	.03
21	69	35	52	13	0	.02
22	70	35	53	13	0	.02
23	70	36	53	12	0	.02
24	70	36	53	12	0	.02
25	71	36	53	12	0	.02
26	71	36	54	11	0	.02
27	72	36	54	11	0	.02
28	72	37	54	11	0	.02
29	73	37	55	11	0	.02
30	73	37	55	10	0	.01
31	73	37	55	10	0	.01
TOTAL				446	0	0.80
AVG	67.6	34.0	50.8			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

JUNE

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	74	37	56	10	0	.01
2	74	38	56	9	0	.01
3	75	38	56	9	0	.01
4	75	38	57	9	0	.01
5	76	38	57	8	0	.01
6	76	39	57	8	0	.01
7	76	39	58	8	0	.01
8	77	39	58	8	0	.00
9	77	39	58	7	0	.00
10	78	40	59	7	1	.00
11	77	40	59	7	1	.00
12	78	40	59	6	1	.01
13	78	40	59	6	1	.01
14	79	41	60	6	1	.01
15	79	41	60	6	1	.01
16	79	41	60	5	1	.01
17	80	42	61	5	1	.01
18	80	42	61	5	1	.01
19	80	42	61	5	1	.01
20	80	43	61	5	1	.01
21	80	43	62	4	1	.02
22	81	43	62	4	1	.02
23	81	44	62	4	1	.02
24	81	44	63	4	1	.02
25	81	44	63	4	1	.02
26	81	45	63	3	1	.03
27	81	45	63	3	1	.03
28	82	45	64	3	1	.03
29	82	46	64	3	2	.04
30	82	46	64	3	2	.04
TOTAL				174	23	0.43
AVG	78.7	41.4	60.1			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

JULY

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	82	47	64	2	2	.04
2	82	47	64	2	2	.05
3	82	47	65	2	2	.05
4	82	48	65	2	2	.05
5	82	48	65	2	2	.06
6	82	48	65	2	2	.06
7	82	49	65	2	2	.06
8	82	49	66	2	2	.06
9	82	49	66	1	2	.07
10	82	49	66	1	2	.07
11	82	50	66	1	2	.07
12	83	50	66	1	2	.07
13	83	50	66	1	2	.08
14	83	50	66	1	2	.08
15	83	50	66	1	2	.08
16	83	50	66	1	2	.08
17	83	51	67	1	2	.08
18	82	51	67	1	3	.08
19	82	51	67	1	3	.09
20	82	51	67	1	2	.09
21	82	51	67	1	2	.09
22	82	51	67	1	2	.09
23	82	51	67	1	2	.09
24	82	51	67	0	2	.09
25	82	51	67	0	2	.09
26	82	51	67	0	2	.09
27	82	51	67	0	2	.09
28	82	51	67	0	2	.10
29	82	51	66	0	2	.10
30	82	51	66	1	2	.10
31	82	51	66	1	2	.10
TOTAL				33	64	2.40
AVG	82.2	49.9	66.1			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

AUGUST

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	82	51	66	1	2	.10
2	81	51	66	1	2	.10
3	81	51	66	1	2	.10
4	81	51	66	1	2	.10
5	81	51	66	1	2	.10
6	81	51	66	1	1	.10
7	81	51	66	1	1	.10
8	81	50	66	1	1	.10
9	81	50	66	1	1	.10
10	81	50	65	1	1	.10
11	80	50	65	1	1	.10
12	80	50	65	1	1	.10
13	80	50	65	1	1	.10
14	80	50	65	1	1	.09
15	80	49	65	1	1	.09
16	80	49	65	2	1	.09
17	80	49	64	2	1	.09
18	80	49	64	2	1	.09
19	79	49	64	2	1	.09
20	79	49	64	2	1	.09
21	79	48	64	2	1	.09
22	79	48	64	2	1	.09
23	79	48	63	2	1	.09
24	79	48	63	3	1	.09
25	78	48	63	3	1	.09
26	78	47	63	3	1	.09
27	78	47	63	3	1	.09
28	78	47	62	3	1	.09
29	78	47	62	3	1	.08
30	78	47	62	3	1	.08
31	78	46	62	4	1	.08
TOTAL				56	36	2.89
AVG	79.7	49.1	64.4			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

SEPTEMBER

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	77	46	62	4	1	.08
2	77	46	61	4	1	.08
3	77	45	61	4	1	.08
4	77	45	61	4	0	.08
5	77	45	61	5	0	.08
6	76	45	61	5	0	.08
7	76	44	60	5	0	.08
8	76	44	60	5	0	.08
9	76	44	60	6	0	.07
10	75	44	60	6	0	.07
11	75	43	59	6	0	.07
12	75	43	59	6	0	.07
13	75	43	59	7	0	.07
14	74	42	58	7	0	.07
15	74	42	58	7	0	.07
16	74	42	58	7	0	.07
17	74	41	58	8	0	.07
18	73	41	57	8	0	.07
19	73	41	57	8	0	.07
20	73	40	57	9	0	.07
21	72	40	56	9	0	.07
22	72	40	56	9	0	.07
23	72	39	56	9	0	.07
24	72	39	55	10	0	.07
25	71	39	55	10	0	.06
26	71	38	55	10	0	.06
27	71	38	54	11	0	.06
28	70	38	54	11	0	.06
29	70	37	53	12	0	.06
30	69	37	53	12	0	.06
TOTAL				224	3	2.12
AVG	73.8	41.7	57.8			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

OCTOBER

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	69	36	53	12	0	.07
2	69	36	52	13	0	.07
3	68	36	52	13	0	.07
4	68	35	52	13	0	.07
5	68	35	51	14	0	.07
6	67	35	51	14	0	.07
7	67	34	50	15	0	.07
8	66	34	50	15	0	.06
9	66	33	50	15	0	.06
10	66	33	49	16	0	.06
11	65	33	49	16	0	.06
12	65	32	49	16	0	.06
13	64	32	48	17	0	.06
14	64	32	48	17	0	.06
15	64	31	47	18	0	.06
16	63	31	47	18	0	.06
17	63	31	47	18	0	.06
18	62	30	46	19	0	.06
19	62	30	46	19	0	.06
20	62	30	46	19	0	.06
21	61	29	45	20	0	.06
22	61	29	45	20	0	.06
23	60	29	44	20	0	.06
24	60	28	44	21	0	.06
25	59	28	44	21	0	.06
26	59	28	43	22	0	.06
27	58	27	43	22	0	.06
28	58	27	43	22	0	.06
29	58	27	42	23	0	.06
30	57	27	42	23	0	.06
31	57	26	42	23	0	.06
TOTAL				554	0	1.93
AVG	63.1	31.1	47.1			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

NOVEMBER

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	56	26	41	24	0	.06
2	56	26	41	24	0	.06
3	55	25	40	24	0	.06
4	55	25	40	25	0	.06
5	55	25	40	25	0	.06
6	54	24	39	25	0	.07
7	54	24	39	26	0	.07
8	53	24	39	26	0	.07
9	53	24	38	26	0	.07
10	53	23	38	27	0	.07
11	52	23	38	27	0	.07
12	52	23	37	27	0	.06
13	51	23	37	28	0	.06
14	51	22	37	28	0	.06
15	51	22	36	28	0	.06
16	50	22	36	29	0	.06
17	50	22	36	29	0	.06
18	50	21	36	29	0	.06
19	49	21	35	30	0	.06
20	49	21	35	30	0	.06
21	49	21	35	30	0	.06
22	48	21	35	30	0	.06
23	48	20	34	31	0	.06
24	48	20	34	31	0	.06
25	48	20	34	31	0	.06
26	47	20	33	31	0	.06
27	47	19	33	32	0	.06
28	47	19	33	32	0	.06
29	47	19	33	32	0	.06
30	46	19	33	33	0	.06
TOTAL				850	0	1.86
AVG	50.8	22.1	36.5			

NORMALS
FLAGSTAFF, AZ

1971 to 2000

Latitude: 35^0 08' N
Longitude: 111^0 40' W
Elevation: 7003 Feet

DECEMBER

	TEMPERATURE			DEGREE DAYS		PRECIPITATION
DATE	MAX	MIN	AVG	HDD	CDD	DAILY
1	46	18	32	33	0	.06
2	46	18	32	33	0	.06
3	46	18	32	33	0	.06
4	45	18	32	33	0	.06
5	45	18	32	34	0	.06
6	45	18	31	34	0	.06
7	45	17	31	34	0	.06
8	45	17	31	34	0	.06
9	44	16	31	34	0	.06
10	44	16	31	34	0	.06
11	44	16	31	35	0	.06
12	44	16	30	35	0	.05
13	44	16	30	35	0	.05
14	44	16	30	35	0	.05
15	44	15	30	35	0	.06
16	43	16	30	35	0	.06
17	43	16	30	35	0	.06
18	43	16	30	36	0	.06
19	43	16	30	36	0	.06
20	43	16	30	36	0	.06
21	43	16	30	36	0	.06
22	43	16	29	36	0	.06
23	43	16	29	36	0	.06
24	43	16	29	36	0	.06
25	43	16	29	36	0	.06
26	43	16	29	36	0	.06
27	43	16	29	36	0	.06
28	42	16	29	36	0	.06
29	42	16	29	36	0	.06
30	42	16	29	36	0	.06
31	42	16	29	36	0	.06
TOTAL				1085	0	1.83
AVG	43.7	16.6	30.2			

Location: W111 37°, N35 13°

FLAGSTAFF, ARIZONA
Rise and Set for the Sun

Mountain Standard Time

Astronomical Applications Dept.
U. S. Naval Observatory
Washington, DC 20392-5420

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0735	1725	0726	1755	0656	1822	0613	1848	0535	1912	0513	1936	0516	1945	0535	1930	0559	1853	0621	1810	0648	1732	0717	1714
02	0735	1726	0725	1756	0655	1823	0612	1849	0534	1913	0513	1936	0516	1945	0536	1929	0600	1852	0622	1809	0649	1731	0717	1714
03	0735	1727	0724	1757	0654	1824	0611	1850	0533	1914	0513	1937	0517	1945	0537	1928	0600	1851	0623	1808	0650	1730	0718	1714
04	0736	1728	0723	1758	0652	1825	0609	1850	0532	1915	0512	1937	0517	1945	0538	1927	0601	1849	0624	1806	0651	1729	0719	1714
05	0736	1729	0722	1759	0651	1826	0608	1851	0531	1916	0512	1938	0517	1944	0539	1926	0602	1848	0624	1805	0652	1728	0720	1714
06	0736	1729	0722	1800	0650	1826	0606	1852	0530	1916	0512	1939	0518	1944	0539	1925	0603	1846	0625	1803	0653	1727	0721	1714
07	0736	1730	0721	1801	0648	1827	0605	1853	0529	1917	0512	1939	0519	1944	0540	1924	0603	1845	0626	1802	0654	1726	0722	1714
08	0736	1731	0720	1802	0647	1828	0604	1854	0528	1918	0512	1940	0519	1944	0541	1923	0604	1844	0627	1801	0655	1726	0722	1714
09	0736	1732	0719	1803	0646	1829	0602	1854	0528	1919	0512	1940	0520	1944	0542	1922	0605	1842	0628	1759	0655	1725	0723	1714
10	0735	1733	0718	1804	0644	1830	0601	1855	0527	1920	0511	1941	0520	1943	0542	1921	0606	1841	0628	1758	0656	1724	0724	1714
11	0735	1734	0717	1805	0643	1831	0600	1856	0526	1920	0511	1941	0521	1943	0543	1920	0606	1839	0629	1757	0657	1723	0725	1715
12	0735	1735	0716	1806	0641	1832	0558	1857	0525	1921	0511	1941	0521	1943	0544	1919	0607	1838	0630	1755	0658	1723	0726	1715
13	0735	1736	0715	1807	0640	1832	0557	1858	0524	1922	0511	1942	0522	1942	0545	1917	0608	1836	0631	1754	0659	1722	0726	1715
14	0735	1737	0714	1808	0639	1833	0556	1858	0523	1923	0511	1942	0523	1942	0545	1916	0608	1835	0632	1753	0700	1721	0727	1715
15	0735	1738	0713	1809	0637	1834	0554	1859	0522	1924	0511	1943	0523	1941	0546	1915	0609	1833	0633	1751	0701	1721	0728	1716
16	0734	1739	0712	1810	0636	1835	0553	1900	0522	1924	0512	1943	0524	1941	0547	1914	0610	1832	0633	1750	0702	1720	0728	1716
17	0734	1740	0711	1811	0634	1836	0552	1901	0521	1925	0512	1943	0525	1940	0548	1913	0611	1831	0634	1749	0703	1719	0729	1716
18	0734	1741	0709	1812	0633	1837	0551	1902	0520	1926	0512	1944	0525	1940	0548	1912	0611	1829	0635	1748	0704	1719	0729	1717
19	0733	1742	0708	1813	0632	1837	0549	1902	0520	1927	0512	1944	0526	1939	0549	1910	0612	1828	0636	1746	0705	1718	0730	1717
20	0733	1743	0707	1814	0630	1838	0548	1903	0519	1927	0512	1944	0527	1939	0550	1909	0613	1826	0637	1745	0706	1718	0731	1718
21	0732	1744	0706	1815	0629	1839	0547	1904	0518	1928	0512	1944	0527	1938	0551	1908	0614	1825	0638	1744	0707	1717	0731	1718
22	0732	1745	0705	1816	0627	1840	0546	1905	0518	1929	0513	1944	0528	1937	0551	1907	0614	1823	0639	1743	0708	1717	0732	1719
23	0731	1746	0704	1817	0626	1841	0544	1906	0517	1930	0513	1945	0529	1937	0552	1905	0615	1822	0640	1742	0709	1716	0732	1719
24	0731	1747	0702	1817	0625	1841	0543	1907	0517	1930	0513	1945	0530	1936	0553	1904	0616	1820	0640	1740	0710	1716	0733	1720
25	0730	1748	0701	1818	0623	1842	0542	1907	0516	1931	0513	1945	0530	1935	0554	1903	0617	1819	0641	1739	0711	1716	0733	1720
26	0730	1749	0700	1819	0622	1843	0541	1908	0516	1932	0514	1945	0531	1935	0554	1901	0617	1818	0642	1738	0712	1715	0733	1721
27	0729	1750	0659	1820	0620	1844	0540	1909	0515	1932	0514	1945	0532	1934	0555	1900	0618	1816	0643	1737	0713	1715	0734	1722
28	0729	1751	0657	1821	0619	1845	0539	1910	0515	1933	0514	1945	0532	1933	0556	1859	0619	1815	0644	1736	0714	1715	0734	1722
29	0728	1752			0618	1846	0538	1911	0514	1934	0515	1945	0533	1932	0557	1857	0620	1813	0645	1735	0715	1715	0734	1723
30	0727	1753			0616	1846	0536	1911	0514	1934	0515	1945	0534	1931	0557	1856	0620	1812	0646	1734	0716	1714	0735	1724
31	0726	1754			0615	1847			0514	1935			0535	1931	0558	1855			0647	1733			0735	1724

This table uses military time, so 1930 actually means 7:30 p.m.
This table may be used for the next ten years with an error not exceeding two minutes.

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