RESOLUTION NO._____

A RESOLUTION OF THE COUNCIL OF THE CITY OF FRESNO, CALIFORNIA MAKING AND ADOPTING EXPRESS FINDINGS THAT MODIFICATIONS OR CHANGES TO THE CALIFORNIA FIRE CODE ARE REASONABLY NECESSARY BECAUSE OF LOCAL CLIMATIC, GEOLOGICAL AND TOPOGRAPHICAL CONDITIONS

WHEREAS, the State of California has adopted the 2018 edition of the International Fire Code, with amendments, which was entitled the 2019 California Fire Code. The 2019 California Fire Code has been incorporated into Title 24, Part 9 of the California Code of Regulations and will take effect on January 1, 2020; and,

WHEREAS, California Health & Safety Code Section 17958.5 authorizes the City, by ordinance, to make changes or modifications to the requirements contained in the provisions of the California Fire Code and other regulations adopted pursuant to California Health & Safety Code Section 17921(a) that result in more stringent local requirements; and,

WHEREAS, California Health & Safety Code Sections 17958, 17958.5 and 17958.7 require more stringent local requirements be supported by express findings made by a city that such modifications or changes are "reasonably necessary because of local climatic, geological or topographical conditions"; and,

WHEREAS, the Council of the City of Fresno intends this Resolution to fulfill the requirements of the California Health & Safety Code regarding modifications or changes to the California Fire Code including express findings of reasonable necessity because of

Date Adopted:
Date Approved:
Effective Date:
City Attorney Approval: BC

local climatic, geological or topographical conditions.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Fresno that said Council expressly finds each of the various proposed modifications or changes to the California Fire Code, which are enumerated below, are reasonably necessary because of local climatic, geological and topographical conditions in the area encompassed by the City of Fresno, as follows:

A. LOCAL CONDITIONS:

Pursuant to Health and Safety Code, Sections 17958.7 and 18941.5, local climatic, topographical or geological conditions make the amendments to the California Fire Code reasonably necessary.

1. CLIMATIC – EXTREME TEMPERATURES

1.1 As documented in the 2025 Fresno General Plan and the Master Environmental Impact Report No. 10130 for the General Plan, during the summer months the City of Fresno experiences periods of what can only be described as extreme heat.

The last three years' worth of the "Local Climatological Data Annual Summary with Comparative Data" reports for 2016, 2017, and 2018 promulgated by the United States Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center demonstrate this condition. In the 2016 summary, the mean daily maximum temperature for Fresno in June, July, August and September is: 96.5°F, 100°F, 98.3°F and 91.3°F respectively. In 2017 the same information is noted as: 95.1°F, 101.9°F, 99.5°F and 90.1°F and in 2018 was: 94.6°F, 102.8°F, 98.5°F and 92.9°F.

1.2 Because of the extreme heat Fresno experiences during the summer months, Fresno firefighters responding to fires and other incidents requiring the evacuation of a building are regularly exposed to temperatures in excess of 105ºF degrees, when accounting for their protective gear, exposing them to the probability of heat cramps, heat exhaustion and possibly heat stroke.

2. GEOLOGICAL – LIMITED WATER SUPPLY AND WATER PRESSURE

2.1 The Fresno Metropolitan area is arid area that receives small amounts of rainfall each year. In 2016 Fresno received 13.651 inches of water equivalent precipitation. In 2017, the City received only 11.50 inches and in 2015, only 8.65 inches. Furthermore, the Fresno City Metropolitan Area relies primarily on groundwater for its

municipal water supply. According to the California Department of Water Resources, the Kings basin (our underground aquifer) is in a state of critical overdraft.

2.2 Due to the hot, dry summers in the Fresno area, domestic water demand substantially reduces the ability of the public water system to dependably meet the larger fire flow demand in many areas of the City.

3. CLIMATIC/TOPOGRAPHICAL – POOR AIR QUALITY CAUSED BY TOPOGRAPHY OF SAN JOAQUIN VALLEY AIR BASIN, LARGE NUMBER OF SUNNY DAYS AND INVERSIONS THAT FORM DURING WINTER MONTHS

3.1 As a result of the San Joaquin Valley's climate and topography, the San Joaquin Valley Air Basin (SJVAP) is predisposed to poor air quality. High mountain ranges surrounding the Valley frequently create air layer inversions that prevent mixing of air masses. The large number of sunny days per year, and high temperatures in the summer, favors the formation of ozone. The area is so sunny the City of Fresno was ranked the second highest major California city for sunshine, with an estimated 79% annual average of possible sunshine for more than a forty-year period. In the winter, inversions form that often trap particulate matter.

3.2 The Federal EPA and California Air Resources Board have classified the San Joaquin Valley Air Basin as severe non-attainment for Ozone and serious non-attainment (Federal) non-attainment (State) for PM_{10}. Ozone is formed by a complex series of chemical reactions between reactive organic gases (ROG), oxides of nitrogen and sunlight. PM_{10} is suspended particulate matter that is less than 10 microns in size. Given its small size, PM_{10} can remain airborne for long periods and can be inhaled, pass through the respiratory system, and lodge in the lungs. In general, nonattainment means that the Federal standard has been exceeded more than twice per year.

3.3 Smoke is composed primarily of carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons and other organic chemicals, nitrogen oxides, trace minerals and several thousand other compounds. Particulate matter is the principal pollutant of concern from some for the relatively short-term exposures (hours to weeks) typically experienced by the public. Particulate matter in wood smoke has a size range near the wavelength of visible light (.4-.7 micrometers). Since these particles can be inhaled into the deepest recesses of the lungs they are thought to represent a greater health concern than larger particles. Another pollutant of concern during some events is carbon monoxide. The San Joaquin Valley Air Pollution Control District states "Emissions from burning include fine particulate, hydrocarbons, oxides of nitrogen, oxides of sulfur, carbon monoxide, and toxic air contaminants that contribute to our air quality problems."

4. TOPOGRAPHICAL – FRESNO'S DEVELOPMENT PATTERN

4.1 Due to the relatively low density growth pattern in the Fresno area, the City of Fresno's nineteen fire stations are spaced approximately four miles apart resulting in an average of a two mile running distance for the designated first-in engine company.

4.2 This average two mile travel distance increases the response time to fires which result in an increase in the size and intensity of fires.

B. REASONABLE NECESSITY

The Council of the City of Fresno expressly finds the modifications and changes to the California Fire Code are reasonably necessary due to the local conditions set forth above since they reduce the risks to life, property, public health and safety that result from the City of Fresno's climatic, geological and topographical conditions. The modifications and changes are further reasonably necessary and justified for the reasons set forth below.

In adopting the California Fire Code as the City of Fresno Fire Code, the City of Fresno proposes to make certain modifications or changes whose effect is to impose more stringent requirements locally than are mandated by the California Fire Code. These are specifically listed below, but may be generally characterized as relating to (1) fire sprinkler systems; (2) luminous exit markings; (3) additional regulation of lumber yards, woodworking, recycling, and waste handling facilities; (4) and additional regulation of motor fuel dispensing and repair garages, locations of above-ground tanks, the amount of Class I and Class II liquids at farms and construction sites in above-ground tanks and basement storage of flammable liquids. These requirements are reasonably necessary to address risks created by local climatic, geological or topographical conditions set forth above for the following reasons:

1. <u>MORE RESTRICTIVE REQUIREMENTS FOR INSTALLATION OF FIRE SPRINKLERS: FRESNO MUNICIPAL CODE AMENDMENTS TO VARIOUS SECTIONS BEGINNING WITH 10-50903.1 THROUGH 10-50912.2.3</u>

1.1 The Fresno Municipal Code Amendments contain more restrictive requirements for installation of fire sprinklers than those in found in the California Fire Code. The requirements are located at Fresno Municipal Code Section 10-50903.1 (requiring retrofitting of fire sprinklers under prescribed conditions based on fire damage, building additions, a change of use to a higher life safety hazard or condominium conversions, etc.), through 10-50903.6 (requiring more restrictive installation details to assist responding firefighters). The amendments are reasonably necessary to address risks created by local climatic, geological or topographical conditions.

1.2 Approximately thirty percent of all residential fires start in the kitchen. Furthermore, studies and testing performed by the United States Fire Administration has resulted in the United States Fire Administration concluding that a single low flow residential sprinkler in the kitchen was able to control both the cooking oil fire and an appliance fire on the countertop.

1.3 Studies performed by the city of Scottsdale, Arizona established in over 90 percent of the cases where automatic fire sprinklers were activated, the fires were controlled with one fire sprinkler. Those one sprinkler activations deposited an average of 276 gallons of water in the structure, compared to an estimated average of 4,876 gallons that would have been sprayed by fire department hoses had sprinklers not been available. In summary, fires in buildings with sprinkler systems use thousands of gallons of water less to extinguish the fire than fires that occur in non-sprinklered property.

1.4 Fires in non-sprinklered buildings generate orders of magnitude more smoke than fires controlled with automatic fire sprinklers. As set forth above, smoke contains particulate matter and other pollutants which contribute to the San Joaquin Valley's sever non-attainment status relating to PM_{10} and ozone.

1.5 As such, this ordinance mandating more restrictive fire sprinkler installation standards is expressly found to be reasonably necessary to address risks created by local climatic, geological or topographical conditions, including limiting fire personnel's exposure to extreme temperatures, reducing the amount of water necessary to extinguish fires, reducing the amount of smoke generated by such fires and addressing extended run time due to topography-related low density growth pattern in the Fresno.

2. <u>INSTALLATION OF LUMINOUS EXIT PATH MARKINGS SHALL BE PROVIDED IN ALL ENCLOSED STAIRWAYS IN ALL NEW BUILDINGS WITH THREE OR MORE STORIES: FRESNO MUNICIPAL CODE, SECTION 10-51025.1.</u>

2.1 Reports and studies related to building evacuation have concluded that the use of luminous egress markings indicators are effective in guiding occupants out of a building, with or without the use of electrical power. This is because luminous exit path markings are not dependent upon electricity for illumination and they are placed at floor level as this is where the most visibility is in the event of smoke. Traditional electrical exit lighting is located higher (above doorways) which is obscured when smoke fills a room or

hallway.

2.2 By making it easier for individuals to evacuate buildings unassisted, fewer firefighters will have to respond to fires to assist with evacuation and/or firefighter resources can be directed toward fire suppression efforts to reduce fire intensity and duration. Accordingly, fewer firefighters will be exposed to health risks associated with exposure to sustained high temperatures and shorter fire duration can reduce smoke generations affecting air quality and fire suppression water use from such fires. As such, mandating installation of luminous egress path markings in certain occupancies three stories or more is expressly found to be reasonably necessary to protect the health and safety of firefighters and other emergency personnel in light of Fresno's extremely high temperatures, air quality, limited water supply and pressure, and extended run time due to topography-related low density growth pattern in the Fresno.

3. REQUIREMENTS REGARDING LUMBER YARDS, WOODWORKING, RECYCLING, AND WASTE HANDLING FACILITIES: VARIOUS FRESNO MUNICIPAL CODE, SECTIONS BEGINNING WITH 10-2801.1 THROUGH 2808.12

3.1 In 2003, the City of Fresno Fire Department was involved in costly and time consuming fire suppression activities at two separate wood waste and green waste recycling facilities. Neither of these two facilities was in compliance with the requirements of Chapter 19 of the California Fire Code. After review of the suppression activities of both incidents, the City of Fresno Fire Department has concluded that even if the facilities had been in compliance with Chapter 19, the City would not have had the necessary equipment to rapidly suppress the fires. As a result, the fires lingered for numerous days, causing health and safety issues for the residents of the City and impacting air quality.

3.2 The City of Fresno currently has a number of wood waste and green waste recycling facilities within its boundaries and anticipates more like facilities as the City endeavors to reduce the amount of solid waste processed in landfills.

3.3 The Fresno Fire Department has concluded that it does not have adequate equipment to quickly engage and control a fire.

3.4 Winter conditions in Fresno and the entire Central Valley include rain and other moisture issues (Tule Fog). The green waste/recycling business is very well known for the problem of spontaneous combustion associated with it when the right amount of moisture creates a chemical reaction that develops heat which in turn, if unchecked, starts fires in the green waste piles. As set forth above, much of the year, Fresno has very hot, dry conditions. This makes all combustible materials more so, which increases the general fire hazard. As set forth above, this causes an obvious heat exposure to the firefighters that are responding to and addressing the emergency.

3.5 The larger the piles of wood product, the more heat retained and the more

likely the piles will spontaneously combust. The larger the piles, the more difficult the fire is to fight, and as a result, the fire will burn longer, causing smoke to linger in the valley, creating a continuous health hazard to the residents and negatively affecting air quality.

3.6 The amendments to the California Fire Code reducing the dimensions of the size of the piles of such wood materials, and imposing additional safety measures, is necessary to ensure the City of Fresno's Fire Department's ability to quickly engage such fires and control them. By requiring pile size restrictions, separation, and access, the fire crews may more readily abate the emergency and/or hazard. On-site water mains and hydrant system will provide a more readily available source of water for firefighting, and will reduce the time it takes the fire crews to set up and extinguish a fire. The less time it takes to start the extinguishment process, the less time the fire has to spread and intensify. Access to a limited-size pile of green waste/recyclable material via all-weather roads will reduce the response time required by the Fire Department to set up and address a fire problem. Perimeter fencing provides a higher level of security for the business site and thereby reduces the threat of a possible arson-caused fire. Wood by-product stored in piles has a tendency to spontaneously combust and spread within a large pile.

3.7 The amendments relating to the storage of wood product are necessary to reduce, or attempt to reduce, air pollution in the San Joaquin Valley caused by wood fires, which is detrimentally enhanced by the above described local climatic, geologic and topographical conditions in the San Joaquin Valley.

4. <u>REGULATION OF MOTOR FUEL DISPENSING AND REPAIR GARAGES, LOCATIONS OF ABOVE-GROUND TANKS, THE AMOUNT OF CLASS I AND CLASS II LIQUIDS AT FARMS AND CONSTRUCTION SITES IN ABOVE-GROUND TANKS AND BASEMENT STORAGE OF FLAMMABLE LIQUIDS: VARIOUS FRESNO MUNICIPAL CODE SECTIONS BEGINNING WITH 10-52306.2.3, THROUGH 10-52811.9</u>

4.1 The following describes when particle classes of liquids and gases reach boiling if temperatures remain at over 100°F:

> <u>Class I flammable liquids</u>: Some of these liquids, such as gasoline and acetone, have boiling points (rapid release of ignitable vapors) at temperatures of 100-130 degrees F. Elevated ambient temperatures for these liquids increases the generation of flammable vapors and increases the chance of ignition.
>
> <u>Class II combustible liquids</u>: These liquids have flash points (the temperature at which a liquid emits ignitable vapors) at or above 100°F. Local climatic conditions in the summer cause many common combustible liquids such as charcoal lighter fluid or paint thinner to be in a state of ready ignition from a spark or open flame.

For flammable and combustible liquids and gasses, the range of ignitability as a percentage of vapor volume in air increases with rise in temperature. For example: gasoline vapor at room temperature will ignite (lower flammability limit or LFL) at 1.07 percent of air volume; at 100°F gasoline will ignite at .94 percent of air volume.

4.2 As set forth above, much of the year Fresno has very hot, dry conditions. This local condition makes all combustible materials (grass, weeds, buildings, roof, etc.) highly combustible, which increases the general fire hazard. High temperatures also make all flammable liquids and gases much more volatile, increasing the fire hazard.

4.3 Therefore, increased regulation of the storage of certain classes of fuels and gases is reasonably necessary to reduce the fire risk associated with the ignition of fuel and gases caused by local conditions.

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STATE OF CALIFORNIA)
COUNTY OF FRESNO) ss.
CITY OF FRESNO)

I, YVONNE SPENCE, City Clerk of the City of Fresno, certify that the foregoing resolution was adopted by the Council for the City of Fresno, at a regular meeting held on the _____ day of _____ 2019.

AYES :
NOES :
ABSENT :
ABSTAIN :

YVONNE SPENCE, CRM MMC

BY: _____

Deputy

APPROVED AS TO FORM:
CITY ATTORNEY'S OFFICE

BY: _____
Brandon M. Collet Date
Senior Deputy City Attorney

Attachment:

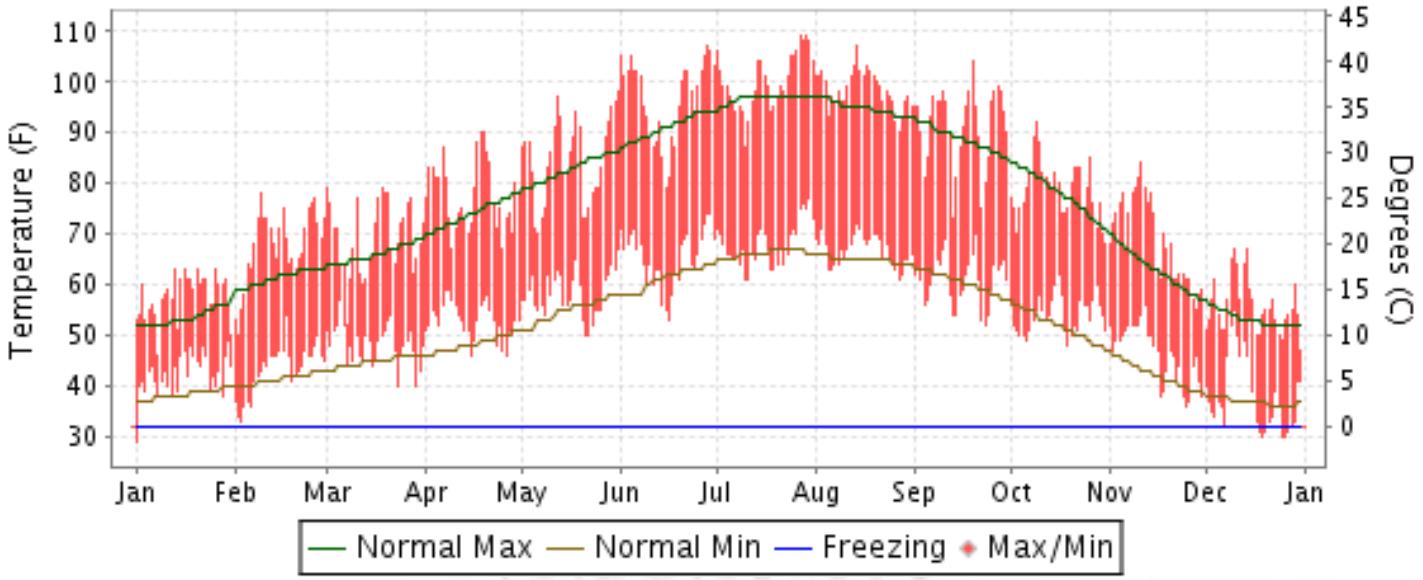
- Exhibit "1" – Historical temperature data compiled United States Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center.

2016
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

ISSN 0198-0890

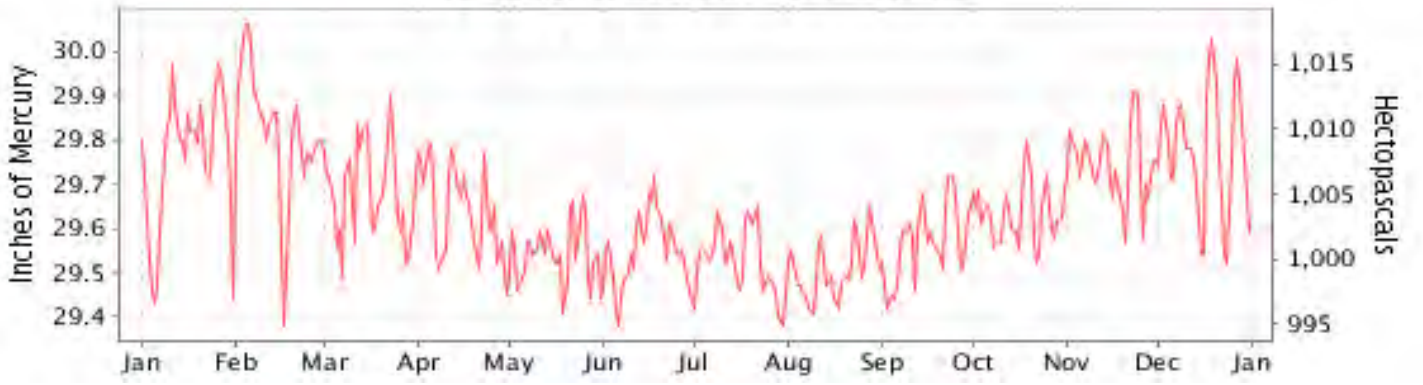
FRESNO,
CALIFORNIA (KFAT)

Daily Max/Min Temperature



Daily Precipitation

Daily Station Pressure



I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER.

Margaret Glass

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE	NATIONAL CENTERS for ENVIRONMENTAL INFORMATION (NCEI) ASHEVILLE, NORTH CAROLINA	DIRECTOR NCEI

METEOROLOGICAL DATA FOR 2016
FRESNO (KFAT)

LATITUDE: 36° 46'N **LONGITUDE:** 119° 43'W **ELEVATION (FT):** GRND: 333 BARO: 375 **TIME ZONE:** PACIFIC (UTC -8) **WBAN:** 93193

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	57.7	67.7	69.2	77.6	84.5	96.5	100.0	98.3	91.3	78.7	68.8	55.8	78.8
	HIGHEST DAILY MAXIMUM	63	78	79	90	98	107	109	107	104	92	84	67	109
	DATE OF OCCURRENCE	26+	09	18+	19+	31	28	29+	14	19	09	11	14+	JUL 29+
	MEAN DAILY MINIMUM	42.4	43.4	48.2	52.9	58.2	65.3	68.0	66.7	60.9	54.1	46.3	38.5	53.7
	LOWEST DAILY MINIMUM	29	33	40	46	50	53	61	61	52	48	36	30	29
	DATE OF OCCURRENCE	01	03	29+	26+	22+	16	11+	27	23	19	25	26+	JAN 01
	AVERAGE DRY BULB	50.0	55.5	58.7	65.3	71.3	80.9	84.0	82.5	76.1	66.4	57.6	47.1	66.3
	MEAN WET BULB	46.5	49.5	52.3	54.5	57.9	61.2	63.1	62.8	58.6	55.4	50.9	43.8	54.7
	MEAN DEW POINT	43.4	44.8	46.6	45.6	47.2	45.8	48.1	48.7	44.4	46.3	45.7	40.5	45.6
	NUMBER OF DAYS WITH:													
	MAXIMUM >= 90°	0	0	0	2	9	22	30	31	21	1	0	0	116
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM <= 32°	1	0	0	0	0	0	0	0	0	0	0	8	9
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	456	268	189	47	10	0	0	0	2	23	226	544	1765
	COOLING DEGREE DAYS	0	0	1	63	214	487	598	552	344	73	10	0	2342
RH	MEAN (PERCENT)	81	72	68	55	47	33	32	35	36	53	70	80	55
	HOUR 04 LST	90	88	86	77	71	55	53	58	56	71	85	90	73
	HOUR 10 LST	77	65	58	44	39	26	25	28	28	43	61	76	48
	HOUR 16 LST	69	51	48	36	27	14	15	15	18	36	54	68	38
	HOUR 22 LST	86	81	74	63	53	38	38	40	42	60	79	85	62
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY <= 1/4 MI)	7	2	1	0	0	0	0	0	0	1	3	9	23
	THUNDERSTORMS	0	0	2	1	1	1	0	0	0	1	0	0	6
PR	MEAN STATION PRESS. (IN.)	29.76	29.82	29.68	29.64	29.54	29.55	29.52	29.51	29.57	29.63	29.74	29.78	29.65
	MEAN SEA-LEVEL PRESS. (IN.)	30.11	30.18	30.03	29.99	29.89	29.89	29.87	29.85	29.91	29.98	30.09	30.14	29.99
WINDS	RESULTANT SPEED (MPH)	1.0	0.6	1.1	4.4	6.0	7.0	6.0	5.2	2.5	1.0	0.9	0.5	2.7
	RES. DIR. (TENS OF DEGS.)	09	05	35	31	31	30	31	31	31	29	32	02	32
	MEAN SPEED (MPH)	4.5	3.3	5.7	7.2	7.7	8.6	7.8	6.9	5.6	5.9	4.1	3.9	5.9
	PREVAIL.DIR.(TENS OF DEGS.)	10	11	11	32	31	31	30	31	31	31	11	30	31
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	25	28	26	30	26	22	22	18	22	26	31	26	31
	DIR. (TENS OF DEGS.)	15	09	29	31	30	30	31	29	31	18	27	29	27
	DATE OF OCCURRENCE	06	17	22	22	21	24	09	20	30	16	20	16	NOV 20
	MAXIMUM 3-SECOND WIND:													
	SPEED (MPH)	32	36	32	35	34	27	27	22	27	33	39	33	39
	DIR. (TENS OF DEGS.)	14	08	30	29	25	30	32	01	30	14	27	29	27
	DATE OF OCCURRENCE	06	17	22	14	05	01	09	23	30	16	20	16	NOV 20
PRECIPITATION	WATER EQUIVALENT:	4.42	0.33	2.93	1.06	0.29	0.06	0.00	0.00	0.00	0.67	1.38	2.51	13.65
	TOTAL (IN.)	0.98	0.30	1.01	0.95	0.23	0.06	0.00	0.00	0.00	0.59	0.77	1.62	1.62
	GREATEST 24-HOUR (IN.)	31	17-18	07	08-09	05-06	12				27-28	26-27	15-16	DEC 15-16
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	16	2	7	4	3	1	0	0	0	6	4	7	50
	PRECIPITATION 0.01	8	1	6	2	1	0	0	0	0	2	4	4	28
	PRECIPITATION 0.10	0	0	1	0	0	0	0	0	0	0	0	1	2
	PRECIPITATION 1.00													
SNOWFALL	SNOW,ICE PELLETS,HAIL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL (IN.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	0	0	0	0	0	0	0	0	0	0	0	0	0
	SNOWFALL >= 1.0													

NORMALS, MEANS, AND EXTREMES
FRESNO (KFAT)

LATITUDE: 36° 46'N **LONGITUDE:** 119° 43'W **ELEVATION (FT):** GRND: 333 BARO: 375 **TIME ZONE:** PACIFIC (UTC -8) **WBAN:** 93193

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	54.8	61.6	67.6	74.6	84.1	92.0	98.4	97.1	90.9	79.5	65.1	54.9	76.7
	MEAN DAILY MAXIMUM	67	54.9	61.8	67.5	74.6	83.6	91.8	98.4	96.5	90.9	79.8	65.4	55.0	76.7
	HIGHEST DAILY MAXIMUM	67	78	80	91	100	107	110	113	112	111	102	90	77	113
	YEAR OF OCCURRENCE		2014	2014	2015	1981	1984	2014	2006	1996	1955	1980	2010	2006	JUL 2006
	MEAN OF EXTREME MAXS.	67	67.6	73.3	80.5	90.2	98.8	105.1	107.2	105.7	102.3	93.7	79.8	67.2	89.3
	NORMAL DAILY MINIMUM	30	38.3	41.5	45.6	49.4	56.2	62.4	67.6	66.2	61.5	53.0	43.4	38.0	51.9
	MEAN DAILY MINIMUM	67	37.9	41.0	44.2	48.2	54.6	60.8	66.1	64.3	60.0	51.6	42.8	37.5	50.8
	LOWEST DAILY MINIMUM	67	19	24	26	32	36	44	50	49	37	27	26	18	18
	YEAR OF OCCURRENCE		1963	1990	1966	1982	1975	1955	1955	1966	1950	1972	1975	1990	DEC 1990
	MEAN OF EXTREME MINS.	67	28.2	31.7	34.8	39.0	44.9	51.4	57.4	56.9	51.2	41.7	32.8	28.1	41.5
	NORMAL DRY BULB	30	46.6	51.5	56.6	62.0	70.1	77.2	83.0	81.7	76.2	66.2	54.3	46.5	64.3
	MEAN DRY BULB	67	46.4	51.4	55.8	61.4	69.1	76.4	82.2	80.4	75.4	65.7	54.1	46.2	63.7
	MEAN WET BULB	33	42.5	45.5	48.3	49.6	52.7	56.7	60.7	60.0	57.4	52.8	47.1	41.6	51.2
	MEAN DEW POINT	33	42.2	44.5	47.1	47.1	49.8	53.8	57.7	57.1	54.9	50.6	45.2	41.0	49.3
	NORMAL NO. DAYS WITH:														
	MAXIMUM >= 90	30	0.0	0.0	0.0	1.8	8.7	18.5	28.7	27.1	18.1	3.3	0.0	0.0	106.2
	MAXIMUM <= 32	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MINIMUM <= 32	30	5.6	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.1	13.2
	MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H/C	NORMAL HEATING DEG. DAYS	30	572	377	265	136	30	3	0	0	2	61	325	575	2346
	NORMAL COOLING DEG. DAYS	30	0	0	5	46	190	369	558	516	338	100	2	0	2124
RH	NORMAL (PERCENT)	30	84	77	70	57	48	43	40	44	49	58	74	83	61
	HOUR 04 LST	30	92	90	87	80	71	65	62	66	71	78	88	92	79
	HOUR 10 LST	30	85	77	66	51	44	39	38	41	45	52	71	83	58
	HOUR 16 LST	30	69	57	49	35	28	24	22	25	28	35	53	67	41
	HOUR 22 LST	30	89	83	76	62	51	44	42	46	51	63	81	88	65
S	PERCENT POSSIBLE SUNSHINE	46	47	65	77	85	90	95	97	96	94	88	66	46	79
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	53	10.4	4.6	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.5	4.6	9.9	31.5
	THUNDERSTORMS	67	0.2	0.4	0.8	0.6	0.6	0.4	0.3	0.3	0.6	0.5	0.3	0.3	5.3
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY														
	CLOUDY														
PR	MEAN STATION PRESSURE(IN)	33	29.80	29.74	29.70	29.65	29.58	29.53	29.53	29.53	29.53	29.63	29.75	29.77	29.65
	MEAN SEA-LEVEL PRES. (IN)	33	30.16	30.09	30.05	30.00	29.93	29.87	29.87	29.87	29.88	29.98	30.10	30.15	30.00
WINDS	MEAN SPEED (MPH)	33	4.1	4.9	5.9	7.3	8.3	8.3	7.4	6.8	6.0	4.7	3.9	4.1	6.0
	PREVAIL.DIR(TENS OF DEGS)	41	12	32	32	32	31	31	31	31	31	31	31	12	31
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	21	38	36	32	36	32	33	24	26	31	35	31	35	38
	DIR. (TENS OF DEGS)		16	13	31	29	32	30	30	31	29	28	27	28	16
	YEAR OF OCCURRENCE		2005	1998	2007	1999	1998	2012	2015	2014	2013	2007	2016	2008	JAN 2005
	MAXIMUM 3-SECOND														
	SPEED (MPH)	21	46	43	41	41	39	40	33	41	36	45	39	45	46
	DIR. (TENS OF DEGS)		16	29	18	32	32	31	07	31	29	33	27	01	16
	YEAR OF OCCURRENCE		2005	1999	2006	2002	2008	2012	2007	2013	2013	2009	2016	2011	JAN 2005
PRECIPITATION	NORMAL (IN)	30	2.19	2.03	2.03	0.95	0.43	0.21	0.01	0.01	0.17	0.63	1.07	1.77	11.50
	MAXIMUM MONTHLY (IN)	67	8.56	6.12	7.24	4.41	1.65	1.93	0.43	0.25	1.19	2.45	3.50	6.73	8.56
	YEAR OF OCCURRENCE		1969	2000	1991	1967	1990	1998	2015	1964	1976	2000	1972	1955	JAN 1969
	MINIMUM MONTHLY (IN)	67	0.04	T	0.00	T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	YEAR OF OCCURRENCE		1976	1964	1972	2008	1982	1983	1983	1981	1981	1978	1959	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	67	2.74	1.99	2.43	1.39	1.42	1.80	0.36	0.25	0.97	1.76	1.35	1.82	2.74
	YEAR OF OCCURRENCE		2006	1969	1995	1983	1990	1998	2015	1964	1978	1992	1953	2007	JAN 2006
	NORMAL NO. DAYS WITH:														
	PRECIPITATION >= 0.01	30	7.6	8.6	7.5	4.5	2.2	0.7	0.2	0.3	1.0	2.5	5.5	7.5	48.1
	PRECIPITATION >= 1.00	30	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	1.3
SNOWFALL	NORMAL (IN)	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MAXIMUM MONTHLY (IN)	57	2.2	T	T	T	T	T	T	0.0	T	T	0.0	1.2	2.2
	YEAR OF OCCURRENCE		1962	1994	2011	2010	2015	2013	2013	2014	2011	1974		1968	JAN 1962
	MAXIMUM IN 24 HOURS (IN)	57	1.5	T	T	T	T	T	0.0	0.0	0.0	T	0.0	1.2	1.5
	YEAR OF OCCURRENCE'		1962	1994	2011	2010	2015	1995				1974		1968	JAN 1962
	MAXIMUM SNOW DEPTH (IN)	56	0	0	0	0	0	0	0	0	0	0	0	1	1
	YEAR OF OCCURRENCE													1968	DEC 1968
	NORMAL NO. DAYS WITH:														
	SNOWFALL >= 1.0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PRECIPITATION (inches) 2016 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1987	1.93	1.36	2.39	0.07	0.87	0.01	0.00	0.00	T	0.85	0.52	1.19	9.19
1988	1.52	0.83	0.27	2.41	0.45	0.03	0.00	0.00	0.00	0.00	1.42	2.46	9.39
1989	0.48	1.18	2.25	0.05	0.89	0.00	0.00	0.03	1.11	0.42	0.50	0.00	6.91
1990	2.82	1.33	0.67	0.92	1.65	0.00	T	0.00	0.15	0.05	0.46	0.68	8.73
1991	0.13	1.01	7.24	0.02	0.03	T	0.00	T	T	0.80	0.04	1.22	10.49
1992	1.94	4.73	2.14	0.18	T	T	0.22	T	T	2.19	T	2.68	14.08
1993	5.18	2.44	1.76	0.20	0.25	1.61	0.00	0.00	0.00	0.12	1.16	1.03	13.75
1994	1.15	1.92	0.52	1.36	1.30	0.00	T	0.00	0.20	0.77	1.57	1.33	10.12
1995	5.42	0.93	5.88	1.08	1.19	0.66	0.01	T	0.00	0.00	T	2.12	17.29
1996	2.07	3.57	1.52	1.17	0.38	0.08	T	0.00	0.00	1.97	1.94	4.27	16.97
1997	3.53	0.17	0.10	T	T	0.01	T	0.00	0.15	0.07	2.66	0.99	7.68
1998	3.40	4.89	3.44	1.26	1.37	1.93	0.00	0.00	0.15	0.16	0.43	0.62	17.65
1999	2.82	1.18	0.49	0.93	0.03	0.20	0.00	0.01	T	T	0.48	0.03	6.17
2000	3.15	6.12	1.35	1.16	0.05	0.56	0.00	T	0.32	2.45	0.01	0.07	15.24
2001	2.66	2.22	0.96	1.87	0.00	0.00	0.08	0.00	T	0.29	1.99	1.95	12.02
2002	0.76	0.40	0.95	0.21	0.38	0.02	0.00	0.00	T	0.00	1.78	2.25	6.75
2003	0.40	1.22	0.63	2.84	0.68	0.00	T	0.04	T	T	0.40	2.93	9.14
2004	0.88	1.69	1.54	0.03	0.07	0.00	0.00	0.00	0.00	2.45	0.81	3.16	10.63
2005	2.42	2.30	2.51	0.56	1.62	0.01	0.00	T	0.04	0.05	0.17	2.00	11.68
2006	3.40	0.54	4.73	3.27	0.36	0.00	T	0.00	0.00	0.08	0.23	1.33	13.94
2007	0.59	2.29	0.97	0.49	0.05	0.00	T	0.02	0.02	0.20	0.09	2.31	7.03
2008	3.32	2.12	0.02	T	0.30	0.00	0.01	0.00	0.00	0.23	1.37	1.09	8.46
2009	1.02	2.43	0.24	0.72	0.46	0.20	0.00	T	0.01	1.39	0.20	2.41	9.08
2010	2.05	2.94	0.96	2.19	0.21	0.00	T	0.00	0.00	0.44	1.80	5.92	16.51
2011	1.71	1.60	3.46	0.32	0.35	1.91	T	0.00	T	0.90	0.67	0.00	10.92
2012	1.38	0.75	2.43	2.02	0.00	T	T	T	0.00	0.25	1.11	2.03	9.97
2013	0.58	0.89	0.65	0.09	0.07	T	T	T	0.01	0.03	0.54	0.15	3.01
2014	0.57	2.11	0.62	0.74	0.04	0.00	0.01	T	0.18	0.50	0.40	2.29	7.46
2015	0.21	1.13	0.06	1.25	0.57	0.01	0.43	0.00	0.12	0.49	1.74	2.97	8.98
2016	4.42	0.33	2.93	1.06	0.29	0.06	0.00	0.00	0.00	0.67	1.38	2.51	13.65
POR= 67 YRS	2.07	1.87	1.81	1.03	0.35	0.16	0.02	0.01	0.15	0.52	1.14	1.67	10.80

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AVERAGE TEMPERATURE (°F) 2016 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1987	45.3	52.8	55.6	66.7	71.8	78.4	77.0	80.2	75.5	70.1	52.3	44.2	64.2
1988	46.0	52.2	56.8	61.6	67.0	75.6	85.5	81.2	76.4	68.7	54.3	44.5	64.2
1989	42.9	48.8	57.9	67.3	69.6	77.0	82.5	79.3	74.3	65.3	54.3	43.8	63.6
1990	45.5	48.0	57.3	65.7	68.1	76.8	84.0	80.6	75.8	67.7	52.9	41.5	63.7
1991	47.0	55.8	51.5	59.5	66.1	74.7	83.8	78.6	79.9	70.5	55.8	47.0	64.2
1992	42.7	55.5	58.8	66.8	76.0	77.0	81.3	83.2	77.0	68.6	54.3	45.3	65.5
1993	47.1	51.9	60.3	61.7	69.9	75.7	80.2	79.7	75.7	67.8	53.9	45.6	64.1
1994	46.9	49.9	59.3	63.2	68.5	77.7	83.3	82.3	75.4	64.8	48.1	45.3	63.7
1995	51.9	54.1	56.2	60.7	66.2	73.3	80.7	82.6	76.3	66.8	58.7	50.5	64.8
1996	48.3	54.2	57.2	63.6	69.9	77.8	85.4	83.4	74.8	64.1	53.9	49.1	65.1
1997	48.7	50.3	60.0	63.5	75.3	75.8	81.3	80.6	77.3	63.8	56.9	44.7	64.9
1998	49.0	50.0	55.5	59.0	62.0	71.5	82.1	84.1	75.8	63.1	53.1	42.8	62.3
1999	44.7	49.9	53.5	58.5	68.0	75.9	80.6	78.4	77.3	68.7	56.9	47.0	63.3
2000	50.2	53.8	56.5	64.2	71.0	79.8	78.8	81.2	74.5	63.9	49.2	47.8	64.2
2001	46.2	48.7	58.8	58.6	77.3	79.7	81.6	81.9	77.0	68.5	56.4	47.4	65.2
2002	45.0	52.2	55.1	62.8	69.6	78.1	84.1	80.0	77.1	65.2	56.2	49.3	64.6
2003	50.6	51.1	58.1	58.6	69.5	78.4	86.5	81.4	79.2	69.8	52.2	49.3	65.4
2004	46.6	50.5	62.6	65.8	70.9	77.4	83.3	81.3	75.9	64.1	51.7	46.5	64.7
2005	47.4	54.4	57.8	59.6	69.4	73.6	86.8	84.0	73.9	65.9	57.6	51.0	65.1
2006	48.7	52.4	50.1	59.7	71.9	80.7	87.9	80.2	75.8	64.0	55.4	47.1	64.5
2007	43.7	51.4	60.3	63.0	71.5	78.0	83.2	82.8	73.7	64.4	57.4	45.5	64.6
2008	47.0	51.1	57.0	61.7	70.3	79.1	83.8	84.1	78.0	67.1	57.5	44.9	65.1
2009	47.7	51.5	56.0	62.0	75.3	75.7	85.0	81.8	79.7	63.7	54.1	47.2	65.0
2010	48.6	52.2	55.5	57.7	65.2	77.6	83.1	79.9	76.9	68.0	53.8	50.9	64.1
2011	46.6	49.2	55.4	60.7	65.1	75.0	82.0	82.4	80.3	68.0	53.5	45.6	63.7
2012	49.3	52.7	56.2	63.0	72.4	77.9	83.4	86.6	81.4	69.1	58.3	50.9	66.8
2013	47.1	51.0	62.1	67.6	73.0	80.9	87.1	83.0	77.9	66.6	58.5	47.3	66.8
2014	53.2	56.8	62.4	66.8	74.2	80.9	86.9	84.4	80.7	72.0	57.7	51.9	69.0
2015	49.0	57.0	64.0	64.3	68.5	82.0	83.1	82.4	78.7	71.3	52.0	45.8	66.5
2016	50.0	55.5	58.7	65.3	71.3	80.9	84.0	82.5	76.1	66.4	57.6	47.1	66.3
POR= 67 YRS	46.4	51.4	55.8	61.4	69.1	76.4	82.2	80.4	75.4	65.7	54.1	46.2	63.7

HEATING DEGREE DAYS (base 65°F) 2016 FRESNO (KFAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1987-88	0	0	0	7	374	636	583	366	251	124	69	12	2422
1988-89	0	0	0	20	316	629	679	450	213	52	14	0	2373
1989-90	0	0	7	73	310	649	598	470	236	35	19	1	2398
1990-91	0	0	0	17	356	722	549	253	412	163	65	0	2537
1991-92	0	0	0	81	276	551	683	267	183	25	0	1	2067
1992-93	0	0	0	18	316	602	549	359	145	113	9	12	2123
1993-94	0	0	0	12	326	595	553	414	168	97	37	0	2202
1994-95	0	0	0	58	500	602	398	298	269	146	60	16	2347
1995-96	0	0	0	30	184	444	513	304	238	99	8	0	1820
1996-97	0	0	0	148	329	486	500	405	169	97	2	0	2136
1997-98	0	0	0	92	246	621	490	412	293	226	104	7	2491
1998-99	0	0	7	79	351	682	619	418	348	227	35	12	2778
1999-00	0	0	0	14	235	550	452	317	259	72	27	3	1929
2000-01	0	0	0	103	466	526	577	451	208	222	0	0	2553
2001-02	0	0	0	23	251	538	610	352	310	109	30	0	2223
2002-03	0	0	0	67	256	477	440	382	216	191	49	0	2078
2003-04	0	0	0	24	378	482	565	413	113	64	3	0	2042
2004-05	0	0	6	124	391	566	537	291	217	158	30	1	2321
2005-06	0	0	0	41	217	424	500	345	456	170	9	0	2162
2006-07	0	0	2	56	283	546	654	373	158	117	19	1	2209
2007-08	0	0	6	59	223	600	552	396	243	149	20	0	2248
2008-09	0	0	0	39	219	616	531	369	274	145	0	0	2193
2009-10	0	0	2	87	322	544	500	352	289	227	62	0	2385
2010-11	0	0	0	40	346	432	563	438	292	138	67	7	2323
2011-12	0	0	0	29	338	595	478	352	268	129	6	2	2197
2012-13	0	0	0	38	205	432	545	386	107	42	4	0	1759
2013-14	0	0	0	32	189	540	361	223	88	68	3	0	1504
2014-15	0	0	0	5	216	401	487	217	83	85	25	0	1519
2015-16	0	0	0	5	385	587	456	268	189	47	10	0	1947
2016-	0	0	2	23	226	544							

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COOLING DEGREE DAYS (base 65°F) 2016 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1987	0	0	0	114	243	409	379	480	323	172	0	0	2120
1988	0	0	3	28	139	338	642	511	349	143	3	0	2156
1989	0	0	4	129	166	366	546	449	291	90	0	0	2041
1990	0	0	2	61	122	360	595	490	333	108	0	0	2071
1991	0	0	0	6	107	298	588	428	454	259	5	0	2145
1992	0	0	0	88	350	366	511	572	365	135	0	0	2387
1993	0	0	3	20	168	342	476	462	331	105	0	0	1907
1994	0	0	1	52	151	389	576	547	318	59	0	0	2093
1995	0	0	0	25	104	273	494	551	347	91	0	0	1885
1996	0	0	4	66	162	389	640	579	300	125	0	0	2265
1997	0	0	18	61	330	334	514	492	373	61	11	0	2194
1998	0	0	6	50	18	210	536	600	338	25	0	0	1783
1999	0	0	0	39	135	348	487	423	373	135	0	0	1940
2000	0	0	0	54	217	454	434	509	291	81	0	0	2040
2001	0	0	20	37	389	447	521	533	365	137	0	0	2449
2002	0	0	9	50	180	400	599	472	372	81	0	0	2163
2003	0	0	7	5	192	406	671	518	431	180	0	0	2410
2004	0	0	45	97	188	376	576	514	341	99	0	0	2236
2005	0	0	4	2	170	266	682	597	271	79	2	0	2073
2006	0	0	0	20	231	478	715	475	337	31	1	0	2288
2007	0	0	20	64	229	396	569	560	274	50	0	0	2162
2008	0	0	0	54	192	431	592	599	394	114	1	0	2377
2009	0	0	1	62	330	328	628	527	451	53	3	0	2383
2010	0	0	0	15	72	386	563	470	364	144	17	0	2031
2011	0	0	1	18	81	315	535	546	466	128	0	0	2090
2012	0	0	2	77	242	391	577	677	495	172	11	0	2644
2013	0	0	23	124	260	483	691	565	394	85	0	0	2625
2014	0	0	12	132	299	485	687	606	479	230	2	0	2932
2015	0	0	58	70	145	513	568	545	418	205	2	0	2524
2016	0	0	1	63	214	487	598	552	344	73	10	0	2342

SNOWFALL (inches) 2016 FRESNO (KFAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1988-89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1990-91	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1996-97	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	T
1998-99	0.0	0.0	0.0	0.0	0.0	0.5	T	T	0.0	0.0	0.0	0.0	0.5
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
2000-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2002-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004-05	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
2005-	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
2006-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008-09	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
2009-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2010-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
2011-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012-13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013-	0.0	0.0	0.0	0.0	0.0	0.0							
2013-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014-15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T
2015-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016-	0.0	0.0	0.0	0.0	0.0	0.0							
POR= 67 YRS	0.0	0.0	0.0	T	0.0	T	T	T	T	T	T	T	T

WBAN : 93193

REFERENCE NOTES :

PAGE 1:
THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).
PAGE 2 AND 3:
H/C INDICATES HEATING AND COOLING DEGREE DAYS.
RH INDICATES RELATIVE HUMIDITY
W/O INDICATES WEATHER AND OBSTRUCTIONS
S INDICATES SUNSHINE.
PR INDICATES PRESSURE.
CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).
GENERAL:
T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.
+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.
ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.
PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.
POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING.
WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.
0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.
CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET
CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.
GENERAL CONTINUED:
WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.
RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.
AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.
SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL.
A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.
DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.
DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.
WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.
ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.
STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED SATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS:
http://www.ncdc.noaa.gov/homr/
SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.

NOTE:

The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.

2016
FRESNO
CALIFORNIA (KFAT)

Fresno is located about midway and toward the eastern edge of the San Joaquin Valley, which is oriented northwest to southeast and has a length of about 225 miles and an average width of 50 miles. The San Joaquin Valley is generally flat. About 15 miles east of Fresno the terrain slopes upward with the foothills of the Sierra Nevada. The Sierra Nevada attain an elevation of more than 14,000 feet 50 miles east of Fresno. West of the city 45 miles lie the foothills of the Coastal Range.

The climate of Fresno is dry and mild in winter and hot in summer. Nearly nine-tenths of the annual precipitation falls in the six months from November to April.

Due to clear skies during the summer and the protection of the San Joaquin Valley from marine effects, the normal daily maximum temperature reaches the high 90s during the latter part of July. The daily maximum temperature during the warmest month has ranged from 76 to ll5 degrees. Low relative humidities and some wind movement substantially lower the sensible temperature during periods of high readings. Humidity readings of 15 percent are common on summer afternoons, and readings as low as 8 percent have been recorded. In contrast to this, humidity readings average 90 percent during the morning hours of December and January.

Winds flow with the major axis of the San Joaquin Valley, generally from the northwest. This feature is especially beneficial since, during the warmest months, the northwest winds increase during the evenings. These refreshing breezes and the normally large temperature variation of about 35 degrees between the highest and lowest readings of the day, generally result in comfortable evening and night temperatures.

Winter temperatures are usually mild with infrequent cold spells dropping the readings below freezing. Heavy frost occurs almost every year, and the first frost usually occurs during the last week of November. The last frost in spring is usually in early March, however, one year in five will have the last frost after the first of April. The growing season is 291 days.

Although the heaviest rains recorded at Fresno for short periods have occurred in June, usually any rainfall during the summer is very light. Snow is a rare occurrence in Fresno.

Fresno enjoys a very high percentage of sunshine, receiving more than 80 percent of the possible amounts during all but the four months of November, December, January, and February. Reduction of sunshine during these months is caused by fog and short periods of stormy weather.

During foggy periods, at times lasting nearly two weeks, sunshine is reduced to a minimum. This fog frequently lifts to a few hundred feet above the surface of the valley and presents the appearance of a heavy, solid cloud layer.

Spring and autumn are very enjoyable seasons in Fresno, with clear skies, light rainfall and winds and mild temperatures.

Station History

FRESNO, CA

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
FRESNO AIR TERMINAL	1949-08-31	1961-01-01	36° 46'	-119° 42'	338		AIRWAYS,COOP,USHCN
FRESNO AIR TERMINAL	1961-09-01	1978-01-01	36° 46'	-119° 43'	328	.9 MI W	AIRWAYS,COOP,USHCN
FRESNO YOSEMITE INTL AP	1995-11-15	2010-06-24	36° 46'	-119° 43'	333		ASOS,COOP,USHCN
FRESNO YOSEMITE INTL AP	2010-06-24	2016-08-22	36° 46'	-119° 43'	333		ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1949-08-01	1949-08-20	36° 46'	-119° 42'	338		AIRWAYS
FRESNO AIR TERMINAL	1961-01-01	1961-09-01	36° 46'	-119° 43'	328		AIRWAYS,COOP,USHCN
FRESNO YOSEMITE INT'L	2016-08-22	Present	36° 46'	-119° 43'	333		ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1985-02-01	1993-11-10	36° 46'	-119° 43'	336	1 MI NNE	COOP,USHCN,WXSVC
FRESNO AIR TERMINAL	1993-11-10	1995-09-01	36° 46'	-119° 43'	336		COOP,USHCN,WXSVC
FRESNO YOSEMITE INTL AP	1995-09-01	1995-11-15	36° 46'	-119° 43'	333	.5 MI WSW	ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1947-10-01	1949-08-01	36° 46'	-119° 42'			AIRWAYS
FRESNO AIR TERMINAL	1978-01-01	1985-02-01	36° 46'	-119° 43'	328		COOP,USHCN,WXSVC
FRESNO AIR TERMINAL	1949-08-20	1949-08-31	36° 46'	-119° 42'	338	7 MI ENE	AIRWAYS,COOP,USHCN

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
MAX/MINTEM	1969-04-01	1982-01-01	DAILY	0800	PALMER		
TEMP	1969-04-01	1982-01-01	DAILY	2400			
TEMP	1982-01-01	1985-02-01	DAILY	2400			
PRECIP	1985-02-01	1995-07-01	HOURLY	2400			
TEMP	1995-09-01	2000-08-23	DAILY	2400	HYGR		
PRECIP	2007-04-03	2010-06-24	DAILY	2400	AHTB	RCRD;HTD	
WIND	2010-06-24	Present	HOURLY	UNKN	ANEMSONIC		
MAX/MINTEM	1969-04-01	1982-01-01	DAILY	0800	PALMER		
PRECIP	1985-02-01	1995-07-01	DAILY	2400	UNIV	RCRD	
TEMP	2000-08-23	2000-08-24	DAILY	2400			
PRECIP	2001-06-04	2007-04-03	HOURLY	2400	AHTB	RCRD;HTD	
WIND	2007-04-03	2010-06-24	HOURLY	UNKN	ANEMSONIC		
PRECIP	2007-04-03	2010-06-24	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	1969-04-01	1982-01-01	DAILY	2400	UNIV	RCRD	
TEMP	1985-02-01	1995-07-01	DAILY	2400	MXMN		
PRECIP	2000-08-23	2001-06-04	HOURLY	2400	TB	RCRD	
PRECIP	2010-06-24	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	2010-06-24	2016-08-22	HOURLY	VAR	AWPAG	RCRD;HTD	
PRECIP	1947-10-01	1969-04-01	DAILY	2400	UNIV	RCRD	
PRECIP	1995-07-01	1995-09-01	HOURLY	2400	UNIV	RCRD	
PRECIP	2010-06-24	Present	DAILY	2400	PCPNX		
WIND	1995-09-01	2000-08-23	HOURLY	UNKN	ANEMCUP		
PRECIP	1995-09-01	2000-08-23	DAILY	2400	TB	RCRD	
PRECIP	2000-08-23	2001-06-04	DAILY	2400	TB	RCRD	
WIND	2000-08-23	2001-06-04	HOURLY	UNKN	ANEMCUP		
TEMP	2001-06-04	2007-04-03	DAILY	2400	ATEMP		
TEMP	2010-06-24	2016-08-22	DAILY	1700	ATEMP		
TEMP	1947-10-01	1969-04-01	DAILY	2400			
MAX/MINTEM	1982-01-01	1985-02-01	DAILY	0800	PALMER		
PRECIP	2001-06-04	2007-04-03	DAILY	2400	AHTB	RCRD;HTD	
TEMP	2010-06-24	Present	DAILY	2400	ATEMP		
PRECIP	1982-01-01	1985-02-01	HOURLY	2400			
TEMP	2007-04-03	2010-06-24	DAILY	2400	ATEMP		
PRECIP	1982-01-01	1985-02-01	DAILY	2400	UNIV	RCRD	
MAX/MINTEM	1982-01-01	1985-02-01	DAILY	0800	PALMER		
PRECIP	1995-07-01	1995-09-01	DAILY	2400	UNIV	RCRD	
TEMP	1995-07-01	1995-09-01	DAILY	2400	MXMN		
PRECIP	1995-09-01	2000-08-23	HOURLY	2400	TB	RCRD	
TEMP	2000-08-23	2001-06-04	DAILY	2400	HYGR		
WIND	2001-06-04	2007-04-03	HOURLY	UNKN	ANEMCUP		

* For explanation of codes and abbrevitions see Station Metadata link below.

Other Station Information can be found at:
ASOS Implementation by NWS: http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm
Station Metadata website: http://www.ncdc.noaa.gov/homr

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2
Fax Number : (828) 271-4876
TDD : (828) 271-4010
Email : ncdc.orders@noaa.gov

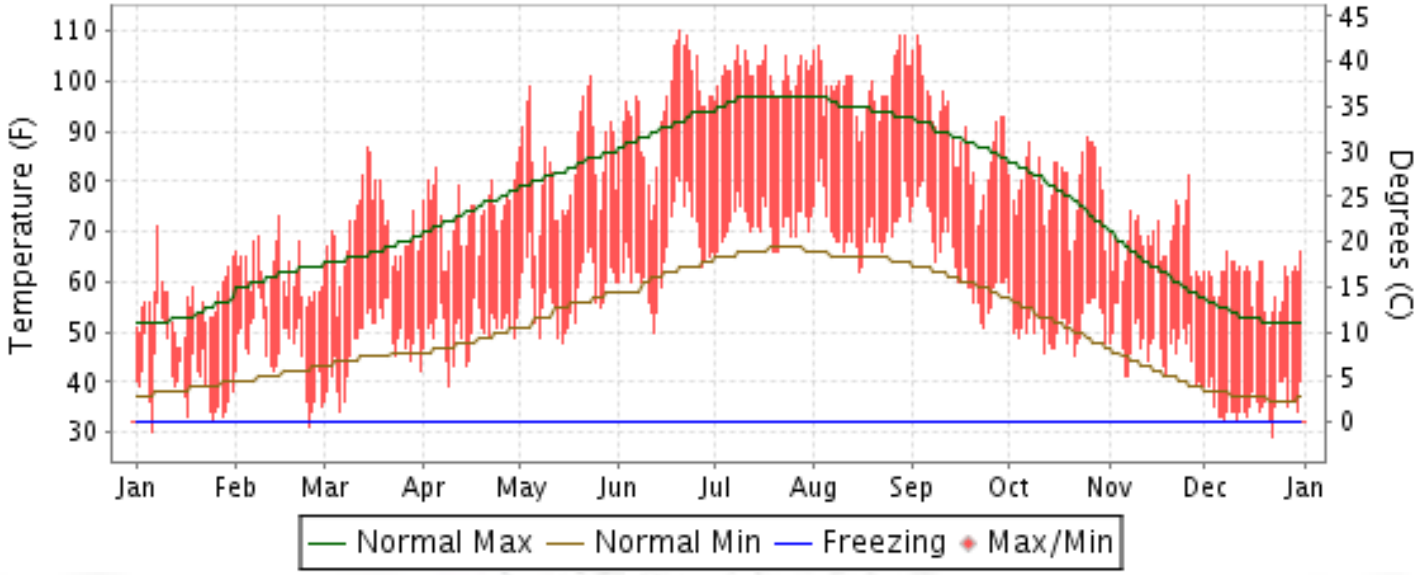
NOAA/National Centers for Environmental Information
Attn: User Engagement & Services Branch
151 Patton Avenue
Asheville, NC 28801-5001

2017
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

ISSN 0198-0890

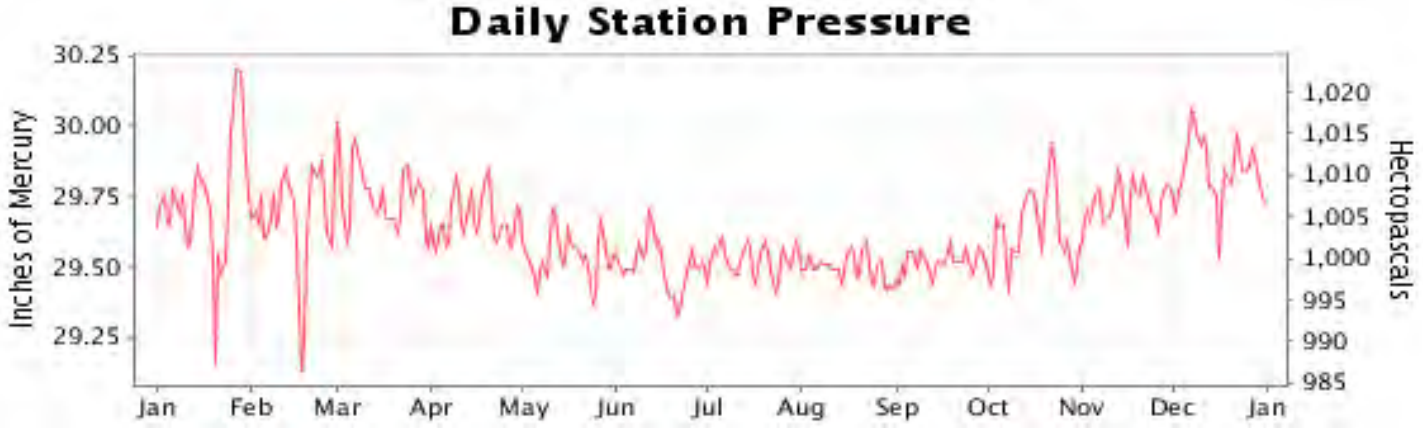
FRESNO,
CALIFORNIA (KFAT)

Daily Max/Min Temperature



Daily Precipitation

Daily Station Pressure



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CENTERS for ENVIRONMENTAL INFORMATION (NCEI) ASHEVILLE, NORTH CAROLINA

Mary A. Wohlpente

DIRECTOR NCEI

METEOROLOGICAL DATA FOR 2017
FRESNO (KFAT)

LATITUDE: 36° 46'N **LONGITUDE:** 119° 43'W **ELEVATION (FT):** GRND: 333 BARO: 375 **TIME ZONE:** PACIFIC (UTC -8) **WBAN:** 93193

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	55.6	61.7	70.3	73.8	84.0	95.1	101.9	99.5	90.1	79.9	68.3	60.5	78.4
	HIGHEST DAILY MAXIMUM	71	73	87	84	101	110	107	109	109	89	81	66	110
	DATE OF OCCURRENCE	08	15	14	30	23	20	17+	29+	02	25	26	31+	JUN 20
	MEAN DAILY MINIMUM	40.5	46.1	47.2	50.3	57.9	65.9	71.1	70.9	64.2	51.4	47.6	35.5	54.1
	LOWEST DAILY MINIMUM	30	31	34	39	48	50	65	62	51	45	39	29	29
	DATE OF OCCURRENCE	06	24	06	09	14	12	01	15	23	21	30+	22	DEC 22
	AVERAGE DRY BULB	48.1	53.9	58.8	62.1	71.0	80.5	86.5	85.2	77.2	65.7	58.0	48.0	66.3
	MEAN WET BULB	45.0	49.6	52.4	53.1	58.1	63.8	65.6	67.0	62.3	53.4	51.9	41.7	55.3
	MEAN DEW POINT	41.5	45.3	46.9	45.0	47.9	52.2	51.5	56.3	51.9	42.7	46.5	35.5	46.9
	NUMBER OF DAYS WITH:													
	MAXIMUM >= 90°	0	0	0	0	12	23	31	30	16	0	0	0	112
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM <= 32°	2	1	0	0	0	0	0	0	0	0	0	4	7
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	514	305	202	94	26	4	0	0	4	45	209	523	1926
	COOLING DEGREE DAYS	0	0	17	13	221	477	674	637	375	72	4	0	2490
RH	MEAN (PERCENT)	80	75	68	59	48	41	33	41	46	49	69	67	56
	HOUR 04 LST	88	86	88	81	72	64	53	63	68	71	84	85	75
	HOUR 10 LST	76	70	60	49	41	33	28	34	37	37	59	57	48
	HOUR 16 LST	69	61	46	38	28	22	16	22	25	30	53	47	38
	HOUR 22 LST	86	79	78	67	54	48	38	47	52	57	78	75	63
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY <= 1/4 MI)	3	1	1	0	0	0	0	0	0	0	2	2	9
	THUNDERSTORMS	1	0	0	1	0	0	0	0	1	0	0	0	3
PR	MEAN STATION PRESS. (IN.)	29.74	29.68	29.75	29.67	29.54	29.50	29.53	29.49	29.52	29.63	29.72	29.85	29.64
	MEAN SEA-LEVEL PRESS. (IN.)	30.10	30.03	30.11	30.02	29.89	29.84	29.87	29.83	29.86	29.98	30.08	30.20	29.98
WINDS	RESULTANT SPEED (MPH)	3.0	2.2	1.4	4.0	4.6	7.1	5.4	4.9	4.1	1.4	0.2	0.4	2.3
	RES. DIR. (TENS OF DEGS.)	12	11	33	31	31	31	31	31	31	31	03	02	32
	MEAN SPEED (MPH)	5.5	6.9	5.4	8.2	7.9	8.3	7.4	6.9	6.3	4.1	4.1	2.7	6.1
	PREVAIL.DIR.(TENS OF DEGS.)	11	12	11	31	31	31	31	30	32	32	11	11	31
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	25	24	36	29	26	29	20	17	25	28	23	25	36
	DIR. (TENS OF DEGS.)	12	15	29	31	31	30	31	31	12	32	29	30	29
	DATE OF OCCURRENCE	20	17	30	28	05	11	18	06	03	20	27	20	MAR 30
	MAXIMUM 3-SECOND WIND:													
	SPEED (MPH)	33	30	42	38	36	38	30	23	32	37	29	31	42
	DIR. (TENS OF DEGS.)	12	28	29	06	31	28	36	32	32	31	30	30	29
	DATE OF OCCURRENCE	20	22	30	13	05	11	19	14	21	20	27	20	MAR 30
PRECIPITATION	WATER EQUIVALENT:	5.50	2.52	1.08	3.42	0.12	0.00	0.00	T	0.16	0.09	0.28	0.04	13.21
	TOTAL (IN.)	0.94	0.73	0.57	2.04	0.12	0.00	0.00	T	0.10	0.09	0.21	0.04	2.04
	GREATEST 24-HOUR (IN.)	08-09	17	24-25	13	07			30+	11	20	17	20	APR 13
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	14	12	7	7	1	0	0	0	2	1	4	1	49
	PRECIPITATION 0.01	11	7	2	4	1	0	0	0	1	0	1	0	27
	PRECIPITATION 0.10	0	0	0	1	0	0	0	0	0	0	0	0	1
	PRECIPITATION 1.00													
SNOWFALL	SNOW,ICE PELLETS,HAIL	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
	TOTAL (IN.)	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
	GREATEST 24-HOUR (IN.)				13									APR 13
	DATE OF OCCURRENCE	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	0	0	0	0	0	0	0	0	0	0	0	0	0
	SNOWFALL >= 1.0													

NORMALS, MEANS, AND EXTREMES
FRESNO (KFAT)

LATITUDE: 36° 46'N **LONGITUDE:** 119° 43'W **ELEVATION (FT):** GRND: 333 BARO: 375 **TIME ZONE:** PACIFIC (UTC -8) **WBAN:** 93193

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	54.8	61.6	67.6	74.6	84.1	92.0	98.4	97.1	90.9	79.5	65.1	54.9	76.7
	MEAN DAILY MAXIMUM	68	55.0	61.8	67.5	74.6	83.6	91.9	98.4	96.6	90.8	79.8	65.5	55.1	76.7
	HIGHEST DAILY MAXIMUM	68	78	80	91	100	107	110	113	112	111	102	90	77	113
	YEAR OF OCCURRENCE		2014	2014	2015	1981	1984	2017	2006	1996	1955	1980	2010	2006	JUL 2006
	MEAN OF EXTREME MAXS.	68	67.6	73.3	80.6	90.1	98.8	105.2	107.2	105.7	102.4	93.6	79.8	67.2	89.3
	NORMAL DAILY MINIMUM	30	38.3	41.5	45.6	49.4	56.2	62.4	67.6	66.2	61.5	53.0	43.4	38.0	51.9
	MEAN DAILY MINIMUM	68	37.9	41.0	44.2	48.2	54.6	60.9	66.2	64.4	60.1	51.6	42.8	37.4	50.8
	LOWEST DAILY MINIMUM	68	19	24	26	32	36	44	50	49	37	27	26	18	18
	YEAR OF OCCURRENCE		1963	1990	1966	1982	1975	1955	1955	1966	1950	1972	1975	1990	DEC 1990
	MEAN OF EXTREME MINS.	68	28.2	31.7	34.8	39.0	45.0	51.4	57.5	56.9	51.2	41.7	32.9	28.1	41.5
	NORMAL DRY BULB	30	46.6	51.5	56.6	62.0	70.1	77.2	83.0	81.7	76.2	66.2	54.3	46.5	64.3
	MEAN DRY BULB	68	46.4	51.4	55.9	61.4	69.1	76.4	82.3	80.5	75.5	65.7	54.2	46.3	63.8
	MEAN WET BULB	34	42.5	45.5	48.2	49.4	52.6	56.5	60.5	59.9	57.2	52.5	47.0	41.4	51.1
	MEAN DEW POINT	34	42.3	44.6	47.2	47.3	50.1	54.1	58.0	57.4	55.1	50.7	45.4	41.0	49.4
	NORMAL NO. DAYS WITH:														
	MAXIMUM >= 90	30	0.0	0.0	0.0	1.8	8.7	18.5	28.7	27.1	18.1	3.3	0.0	0.0	106.2
	MAXIMUM <= 32	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MINIMUM <= 32	30	5.6	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.1	13.2
	MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H/C	NORMAL HEATING DEG. DAYS	30	572	377	265	136	30	3	0	0	2	61	325	575	2346
	NORMAL COOLING DEG. DAYS	30	0	0	5	46	190	369	558	516	338	100	2	0	2124
RH	NORMAL (PERCENT)	30	84	77	70	57	48	43	40	44	49	58	74	83	61
	HOUR 04 LST	30	92	90	87	80	71	65	62	66	71	78	88	92	79
	HOUR 10 LST	30	85	77	66	51	44	39	38	41	45	52	71	83	58
	HOUR 16 LST	30	69	57	49	35	28	24	22	25	28	35	53	67	41
	HOUR 22 LST	30	89	83	76	62	51	44	42	46	51	63	81	88	65
S	PERCENT POSSIBLE SUNSHINE	46	47	65	77	85	90	95	97	96	94	88	66	46	79
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	54	10.3	4.6	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.5	4.6	9.8	31.3
	THUNDERSTORMS	68	0.2	0.4	0.8	0.6	0.6	0.4	0.3	0.2	0.6	0.5	0.2	0.3	5.1
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY														
	CLOUDY														
PR	MEAN STATION PRESSURE(IN)	34	29.80	29.74	29.70	29.65	29.58	29.52	29.53	29.53	29.53	29.63	29.75	29.77	29.64
	MEAN SEA-LEVEL PRES. (IN)	34	30.16	30.09	30.05	30.00	29.93	29.87	29.87	29.87	29.88	29.98	30.10	30.15	30.00
WINDS	MEAN SPEED (MPH)	34	4.1	5.0	5.9	7.3	8.3	8.3	7.4	6.8	6.0	4.7	3.9	4.0	6.0
	PREVAIL.DIR(TENS OF DEGS)	42	12	32	32	32	31	31	31	31	31	31	31	12	31
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	22	38	36	36	36	32	33	24	26	31	35	31	35	38
	DIR. (TENS OF DEGS)		16	13	29	29	32	30	30	31	29	28	27	28	16
	YEAR OF OCCURRENCE		2005	1998	2017	1999	1998	2012	2015	2014	2013	2007	2016	2008	JAN 2005
	MAXIMUM 3-SECOND														
	SPEED (MPH)	22	46	43	42	41	39	40	33	41	36	45	39	45	46
	DIR. (TENS OF DEGS)		16	29	29	32	32	31	07	31	29	33	27	01	16
	YEAR OF OCCURRENCE		2005	1999	2017	2002	2008	2012	2007	2013	2013	2009	2016	2011	JAN 2005
PRECIPITATION	NORMAL (IN)	30	2.19	2.03	2.03	0.95	0.43	0.21	0.01	0.01	0.17	0.63	1.07	1.77	11.50
	MAXIMUM MONTHLY (IN)	68	8.56	6.12	7.24	4.41	1.65	1.93	0.43	0.25	1.19	2.45	3.50	6.73	8.56
	YEAR OF OCCURRENCE		1969	2000	1991	1967	1990	1998	2015	1964	1976	2000	1972	1955	JAN 1969
	MINIMUM MONTHLY (IN)	68	0.04	T	0.00	T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	YEAR OF OCCURRENCE		1976	1964	1972	2008	1982	1983	1983	1981	1981	1978	1959	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	68	2.74	1.99	2.43	2.04	1.42	1.80	0.36	0.25	0.97	1.76	1.35	1.82	2.74
	YEAR OF OCCURRENCE		2006	1969	1995	2017	1990	1998	2015	1964	1978	1992	1953	2007	JAN 2006
	NORMAL NO. DAYS WITH:														
	PRECIPITATION >= 0.01	30	7.6	8.6	7.5	4.5	2.2	0.7	0.2	0.3	1.0	2.5	5.5	7.5	48.1
	PRECIPITATION >= 1.00	30	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	1.3
SNOWFALL	NORMAL (IN)	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MAXIMUM MONTHLY (IN)	58	2.2	T	T	T	T	T	T	T	T	T	0.0	1.2	2.2
	YEAR OF OCCURRENCE		1962	1994	2011	2017	2015	2013	2013	2017	2011	1974		1968	JAN 1962
	MAXIMUM IN 24 HOURS (IN)	58	1.5	T	T	T	T	T	0.0	0.0	0.0	T	0.0	1.2	1.5
	YEAR OF OCCURRENCE'		1962	1994	2011	2017	2015	1995				1974		1968	JAN 1962
	MAXIMUM SNOW DEPTH (IN)	57	0	0	0	0	0	0	0	0	0	0	0	1	1
	YEAR OF OCCURRENCE													1968	DEC 1968
	NORMAL NO. DAYS WITH:														
	SNOWFALL >= 1.0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PRECIPITATION (inches) 2017 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1988	1.52	0.83	0.27	2.41	0.45	0.03	0.00	0.00	0.00	0.00	1.42	2.46	9.39
1989	0.48	1.18	2.25	0.05	0.89	0.00	0.00	0.03	1.11	0.42	0.50	0.00	6.91
1990	2.82	1.33	0.67	0.92	1.65	0.00	T	0.00	0.15	0.05	0.46	0.68	8.73
1991	0.13	1.01	7.24	0.02	0.03	T	0.00	T	T	0.80	0.04	1.22	10.49
1992	1.94	4.73	2.14	0.18	T	T	0.22	T	T	2.19	T	2.68	14.08
1993	5.18	2.44	1.76	0.20	0.25	1.61	0.00	0.00	0.00	0.12	1.16	1.03	13.75
1994	1.15	1.92	0.52	1.36	1.30	0.00	T	0.00	0.20	0.77	1.57	1.33	10.12
1995	5.42	0.93	5.88	1.08	1.19	0.66	0.01	T	0.00	0.00	T	2.12	17.29
1996	2.07	3.57	1.52	1.17	0.38	0.08	T	0.00	0.00	1.97	1.94	4.27	16.97
1997	3.53	0.17	0.10	T	T	0.01	T	0.00	0.15	0.07	2.66	0.99	7.68
1998	3.40	4.89	3.44	1.26	1.37	1.93	0.00	0.00	0.15	0.16	0.43	0.62	17.65
1999	2.82	1.18	0.49	0.93	0.03	0.20	0.00	0.01	T	T	0.48	0.03	6.17
2000	3.15	6.12	1.35	1.16	0.05	0.56	0.00	T	0.32	2.45	0.01	0.07	15.24
2001	2.66	2.22	0.96	1.87	0.00	0.00	0.08	0.00	T	0.29	1.99	1.95	12.02
2002	0.76	0.40	0.95	0.21	0.38	0.02	0.00	0.00	T	0.00	1.78	2.25	6.75
2003	0.40	1.22	0.63	2.84	0.68	0.00	T	0.04	T	T	0.40	2.93	9.14
2004	0.88	1.69	1.54	0.03	0.07	0.00	0.00	0.00	0.00	2.45	0.81	3.16	10.63
2005	2.42	2.30	2.51	0.56	1.62	0.01	0.00	T	0.04	0.05	0.17	2.00	11.68
2006	3.40	0.54	4.73	3.27	0.36	0.00	T	0.00	0.00	0.08	0.23	1.33	13.94
2007	0.59	2.29	0.97	0.49	0.05	0.00	T	0.02	0.02	0.20	0.09	2.31	7.03
2008	3.32	2.12	0.02	T	0.30	0.00	0.01	0.00	0.00	0.23	1.37	1.09	8.46
2009	1.02	2.43	0.24	0.72	0.46	0.20	0.00	T	0.01	1.39	0.20	2.41	9.08
2010	2.05	2.94	0.96	2.19	0.21	0.00	T	0.00	0.00	0.44	1.80	5.92	16.51
2011	1.71	1.60	3.46	0.32	0.35	1.91	T	0.00	T	0.90	0.67	0.00	10.92
2012	1.38	0.75	2.43	2.02	0.00	T	T	T	0.00	0.25	1.11	2.03	9.97
2013	0.58	0.89	0.65	0.09	0.07	T	T	T	0.01	0.03	0.54	0.15	3.01
2014	0.57	2.11	0.62	0.74	0.04	0.00	0.01	T	0.18	0.50	0.40	2.29	7.46
2015	0.21	1.13	0.06	1.25	0.57	0.01	0.43	0.00	0.12	0.49	1.74	2.97	8.98
2016	4.42	0.33	2.93	1.06	0.29	0.06	0.00	0.00	0.00	0.67	1.38	2.51	13.65
2017	5.50	2.52	1.08	3.42	0.12	0.00	0.00	T	0.16	0.09	0.28	0.04	13.21
POR= 68 YRS	2.12	1.88	1.80	1.07	0.35	0.15	0.01	0.01	0.15	0.52	1.12	1.65	10.83

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AVERAGE TEMPERATURE (°F) 2017 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1988	46.0	52.2	56.8	61.6	67.0	75.6	85.5	81.2	76.4	68.7	54.3	44.5	64.2
1989	42.9	48.8	57.9	67.3	69.6	77.0	82.5	79.3	74.3	65.3	54.3	43.8	63.6
1990	45.5	48.0	57.3	65.7	68.1	76.8	84.0	80.6	75.8	67.7	52.9	41.5	63.7
1991	47.0	55.8	51.5	59.5	66.1	74.7	83.8	78.6	79.9	70.5	55.8	47.0	64.2
1992	42.7	55.5	58.8	66.8	76.0	77.0	81.3	83.2	77.0	68.6	54.3	45.3	65.5
1993	47.1	51.9	60.3	61.7	69.9	75.7	80.2	79.7	75.7	67.8	53.9	45.6	64.1
1994	46.9	49.9	59.3	63.2	68.5	77.7	83.3	82.3	75.4	64.8	48.1	45.3	63.7
1995	51.9	54.1	56.2	60.7	66.2	73.3	80.7	82.6	76.3	66.8	58.7	50.5	64.8
1996	48.3	54.2	57.2	63.6	69.9	77.8	85.4	83.4	74.8	64.1	53.9	49.1	65.1
1997	48.7	50.3	60.0	63.5	75.3	75.8	81.3	80.6	77.3	63.8	56.9	44.7	64.9
1998	49.0	50.0	55.5	59.0	62.0	71.5	82.1	84.1	75.8	63.1	53.1	42.8	62.3
1999	44.7	49.9	53.5	58.5	68.0	75.9	80.6	78.4	77.3	68.7	56.9	47.0	63.3
2000	50.2	53.8	56.5	64.2	71.0	79.8	78.8	81.2	74.5	63.9	49.2	47.8	64.2
2001	46.2	48.7	58.8	58.6	77.3	79.7	81.6	81.9	77.0	68.5	56.4	47.4	65.2
2002	45.0	52.2	55.1	62.8	69.6	78.1	84.1	80.0	77.1	65.2	56.2	49.3	64.6
2003	50.6	51.1	58.1	58.6	69.5	78.4	86.5	81.4	79.2	69.8	52.2	49.3	65.4
2004	46.6	50.5	62.6	65.8	70.9	77.4	83.3	81.3	75.9	64.1	51.7	46.5	64.7
2005	47.4	54.4	57.8	59.6	69.4	73.6	86.8	84.0	73.9	65.9	57.6	51.0	65.1
2006	48.7	52.4	50.1	59.7	71.9	80.7	87.9	80.2	75.8	64.0	55.4	47.1	64.5
2007	43.7	51.4	60.3	63.0	71.5	78.0	83.2	82.8	73.7	64.4	57.4	45.5	64.6
2008	47.0	51.1	57.0	61.7	70.3	79.1	83.8	84.1	78.0	67.1	57.5	44.9	65.1
2009	47.7	51.5	56.0	62.0	75.3	75.7	85.0	81.8	79.7	63.7	54.1	47.2	65.0
2010	48.6	52.2	55.5	57.7	65.2	77.6	83.1	79.9	76.9	68.0	53.8	50.9	64.1
2011	46.6	49.2	55.4	60.7	65.1	75.0	82.0	82.4	80.3	68.0	53.5	45.6	63.7
2012	49.3	52.7	56.2	63.0	72.4	77.9	83.4	86.6	81.4	69.1	58.3	50.9	66.8
2013	47.1	51.0	62.1	67.6	73.0	80.9	87.1	83.0	77.9	66.6	58.5	47.3	66.8
2014	53.2	56.8	62.4	66.8	74.2	80.9	86.9	84.4	80.7	72.0	57.7	51.9	69.0
2015	49.0	57.0	64.0	64.3	68.5	82.0	83.1	82.4	78.7	71.3	52.0	45.8	66.5
2016	50.0	55.5	58.7	65.3	71.3	80.9	84.0	82.5	76.1	66.4	57.6	47.1	66.3
2017	48.1	53.9	58.8	62.1	71.0	80.5	86.5	85.2	77.2	65.7	58.0	48.0	66.3
POR= 68 YRS	46.4	51.4	55.9	61.4	69.1	76.4	82.3	80.5	75.5	65.7	54.2	46.3	63.8

HEATING DEGREE DAYS (base 65°F) 2017 FRESNO (KFAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1988-89	0	0	0	20	316	629	679	450	213	52	14	0	2373
1989-90	0	0	7	73	310	649	598	470	236	35	19	1	2398
1990-91	0	0	0	17	356	722	549	253	412	163	65	0	2537
1991-92	0	0	0	81	276	551	683	267	183	25	0	1	2067
1992-93	0	0	0	18	316	602	549	359	145	113	9	12	2123
1993-94	0	0	0	12	326	595	553	414	168	97	37	0	2202
1994-95	0	0	0	58	500	602	398	298	269	146	60	16	2347
1995-96	0	0	0	30	184	444	513	304	238	99	8	0	1820
1996-97	0	0	0	148	329	486	500	405	169	97	2	0	2136
1997-98	0	0	0	92	246	621	490	412	293	226	104	7	2491
1998-99	0	0	7	79	351	682	619	418	348	227	35	12	2778
1999-00	0	0	0	14	235	550	452	317	259	72	27	3	1929
2000-01	0	0	0	103	466	526	577	451	208	222	0	0	2553
2001-02	0	0	0	23	251	538	610	352	310	109	30	0	2223
2002-03	0	0	0	67	256	477	440	382	216	191	49	0	2078
2003-04	0	0	0	24	378	482	565	413	113	64	3	0	2042
2004-05	0	0	6	124	391	566	537	291	217	158	30	1	2321
2005-06	0	0	0	41	217	424	500	345	456	170	9	0	2162
2006-07	0	0	2	56	283	546	654	373	158	117	19	1	2209
2007-08	0	0	6	59	223	600	552	396	243	149	20	0	2248
2008-09	0	0	0	39	219	616	531	369	274	145	0	0	2193
2009-10	0	0	2	87	322	544	500	352	289	227	62	0	2385
2010-11	0	0	0	40	346	432	563	438	292	138	67	7	2323
2011-12	0	0	0	29	338	595	478	352	268	129	6	2	2197
2012-13	0	0	0	38	205	432	545	386	107	42	4	0	1759
2013-14	0	0	0	32	189	540	361	223	88	68	3	0	1504
2014-15	0	0	0	5	216	401	487	217	83	85	25	0	1519
2015-16	0	0	0	5	385	587	456	268	189	47	10	0	1947
2016-17	0	0	2	23	226	544	514	305	202	94	26	4	1940
2017-	0	0	4	45	209	523							

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COOLING DEGREE DAYS (base 65°F) 2017 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1988	0	0	3	28	139	338	642	511	349	143	3	0	2156
1989	0	0	4	129	166	366	546	449	291	90	0	0	2041
1990	0	0	2	61	122	360	595	490	333	108	0	0	2071
1991	0	0	0	6	107	298	588	428	454	259	5	0	2145
1992	0	0	0	88	350	366	511	572	365	135	0	0	2387
1993	0	0	3	20	168	342	476	462	331	105	0	0	1907
1994	0	0	1	52	151	389	576	547	318	59	0	0	2093
1995	0	0	0	25	104	273	494	551	347	91	0	0	1885
1996	0	0	4	66	162	389	640	579	300	125	0	0	2265
1997	0	0	18	61	330	334	514	492	373	61	11	0	2194
1998	0	0	6	50	18	210	536	600	338	25	0	0	1783
1999	0	0	0	39	135	348	487	423	373	135	0	0	1940
2000	0	0	0	54	217	454	434	509	291	81	0	0	2040
2001	0	0	20	37	389	447	521	533	365	137	0	0	2449
2002	0	0	9	50	180	400	599	472	372	81	0	0	2163
2003	0	0	7	5	192	406	671	518	431	180	0	0	2410
2004	0	0	45	97	188	376	576	514	341	99	0	0	2236
2005	0	0	4	2	170	266	682	597	271	79	2	0	2073
2006	0	0	0	20	231	478	715	475	337	31	1	0	2288
2007	0	0	20	64	229	396	569	560	274	50	0	0	2162
2008	0	0	0	54	192	431	592	599	394	114	1	0	2377
2009	0	0	1	62	330	328	628	527	451	53	3	0	2383
2010	0	0	0	15	72	386	563	470	364	144	17	0	2031
2011	0	0	1	18	81	315	535	546	466	128	0	0	2090
2012	0	0	2	77	242	391	577	677	495	172	11	0	2644
2013	0	0	23	124	260	483	691	565	394	85	0	0	2625
2014	0	0	12	132	299	485	687	606	479	230	2	0	2932
2015	0	0	58	70	145	513	568	545	418	205	2	0	2524
2016	0	0	1	63	214	487	598	552	344	73	10	0	2342
2017	0	0	17	13	221	477	674	637	375	72	4	0	2490

SNOWFALL (inches) 2017 FRESNO (KFAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1990-91	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1996-97	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	T
1998-99	0.0	0.0	0.0	0.0	0.0	0.5	T	T	0.0	0.0	0.0	0.0	0.5
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
2000-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2002-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004-05	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
2005-	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
2006-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008-09	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
2009-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2010-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
2011-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012-13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013-	0.0	0.0	0.0	0.0	0.0	0.0							
2013-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014-15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T
2015-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2017-	0.0	0.0	0.0	0.0	0.0	0.0							
POR= 68 YRS	0.0	0.0	0.0	T	0.0	T	T	T	T	T	T	T	T

WBAN : 93193

REFERENCE NOTES :

PAGE 1:
THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).
PAGE 2 AND 3:
H/C INDICATES HEATING AND COOLING DEGREE DAYS.
RH INDICATES RELATIVE HUMIDITY
W/O INDICATES WEATHER AND OBSTRUCTIONS
S INDICATES SUNSHINE.
PR INDICATES PRESSURE.
CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).
GENERAL:
T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.
+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.
ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.
PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.
POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING.
WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.
0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.
CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET
CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.
GENERAL CONTINUED:
WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.
RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.
AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.
SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL.
A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.
DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.
DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.
WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.
ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.
STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED SATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS:
http://www.ncdc.noaa.gov/homr/
SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.

NOTE:

The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.

2017
FRESNO
CALIFORNIA (KFAT)

Fresno is located about midway and toward the eastern edge of the San Joaquin Valley, which is oriented northwest to southeast and has a length of about 225 miles and an average width of 50 miles. The San Joaquin Valley is generally flat. About 15 miles east of Fresno the terrain slopes upward with the foothills of the Sierra Nevada. The Sierra Nevada attain an elevation of more than 14,000 feet 50 miles east of Fresno. West of the city 45 miles lie the foothills of the Coastal Range.

The climate of Fresno is dry and mild in winter and hot in summer. Nearly nine-tenths of the annual precipitation falls in the six months from November to April.

Due to clear skies during the summer and the protection of the San Joaquin Valley from marine effects, the normal daily maximum temperature reaches the high 90s during the latter part of July. The daily maximum temperature during the warmest month has ranged from 76 to ll5 degrees. Low relative humidities and some wind movement substantially lower the sensible temperature during periods of high readings. Humidity readings of 15 percent are common on summer afternoons, and readings as low as 8 percent have been recorded. In contrast to this, humidity readings average 90 percent during the morning hours of December and January.

Winds flow with the major axis of the San Joaquin Valley, generally from the northwest. This feature is especially beneficial since, during the warmest months, the northwest winds increase during the evenings. These refreshing breezes and the normally large temperature variation of about 35 degrees between the highest and lowest readings of the day, generally result in comfortable evening and night temperatures.

Winter temperatures are usually mild with infrequent cold spells dropping the readings below freezing. Heavy frost occurs almost every year, and the first frost usually occurs during the last week of November. The last frost in spring is usually in early March, however, one year in five will have the last frost after the first of April. The growing season is 291 days.

Although the heaviest rains recorded at Fresno for short periods have occurred in June, usually any rainfall during the summer is very light. Snow is a rare occurrence in Fresno.

Fresno enjoys a very high percentage of sunshine, receiving more than 80 percent of the possible amounts during all but the four months of November, December, January, and February. Reduction of sunshine during these months is caused by fog and short periods of stormy weather.

During foggy periods, at times lasting nearly two weeks, sunshine is reduced to a minimum. This fog frequently lifts to a few hundred feet above the surface of the valley and presents the appearance of a heavy, solid cloud layer.

Spring and autumn are very enjoyable seasons in Fresno, with clear skies, light rainfall and winds and mild temperatures.

Station History

FRESNO, CA

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
FRESNO AIR TERMINAL	1949-08-31	1961-01-01	36° 46'	-119° 42'	338		AIRWAYS,COOP,USHCN
FRESNO AIR TERMINAL	1961-09-01	1978-01-01	36° 46'	-119° 43'	328	.9 MI W	AIRWAYS,COOP,USHCN
FRESNO YOSEMITE INTL AP	1995-09-01	1995-11-15	36° 46'	-119° 43'	333	.5 MI WSW	ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1949-08-20	1949-08-31	36° 46'	-119° 42'	338	7 MI ENE	AIRWAYS,COOP,USHCN
FRESNO AIR TERMINAL	1978-01-01	1985-02-01	36° 46'	-119° 43'	328		COOP,USHCN,WXSVC
FRESNO YOSEMITE INT'L	2016-08-22	Present	36° 46'	-119° 43'	333		ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1985-02-01	1993-11-10	36° 46'	-119° 43'	336	1 MI NNE	COOP,USHCN,WXSVC
FRESNO YOSEMITE INTL AP	1995-11-15	2010-06-24	36° 46'	-119° 43'	333		ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1961-01-01	1961-09-01	36° 46'	-119° 43'	328		AIRWAYS,COOP,USHCN
FRESNO AIR TERMINAL	1947-10-01	1949-08-01	36° 46'	-119° 42'			AIRWAYS
FRESNO AIR TERMINAL	1993-11-10	1995-09-01	36° 46'	-119° 43'	336		COOP,USHCN,WXSVC
FRESNO AIR TERMINAL	1949-08-01	1949-08-20	36° 46'	-119° 42'	338		AIRWAYS
FRESNO YOSEMITE INTL AP	2010-06-24	2016-08-22	36° 46'	-119° 43'	333		ASOS,COOP,USHCN

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure

* For explanation of codes and abbrevitions see Station Metadata link below.

Other Station Information can be found at:
ASOS Implementation by NWS: http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm
Station Metadata website: http://www.ncdc.noaa.gov/homr

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2
Fax Number : (828) 271-4876
TDD : (828) 271-4010
Email : ncdc.orders@noaa.gov

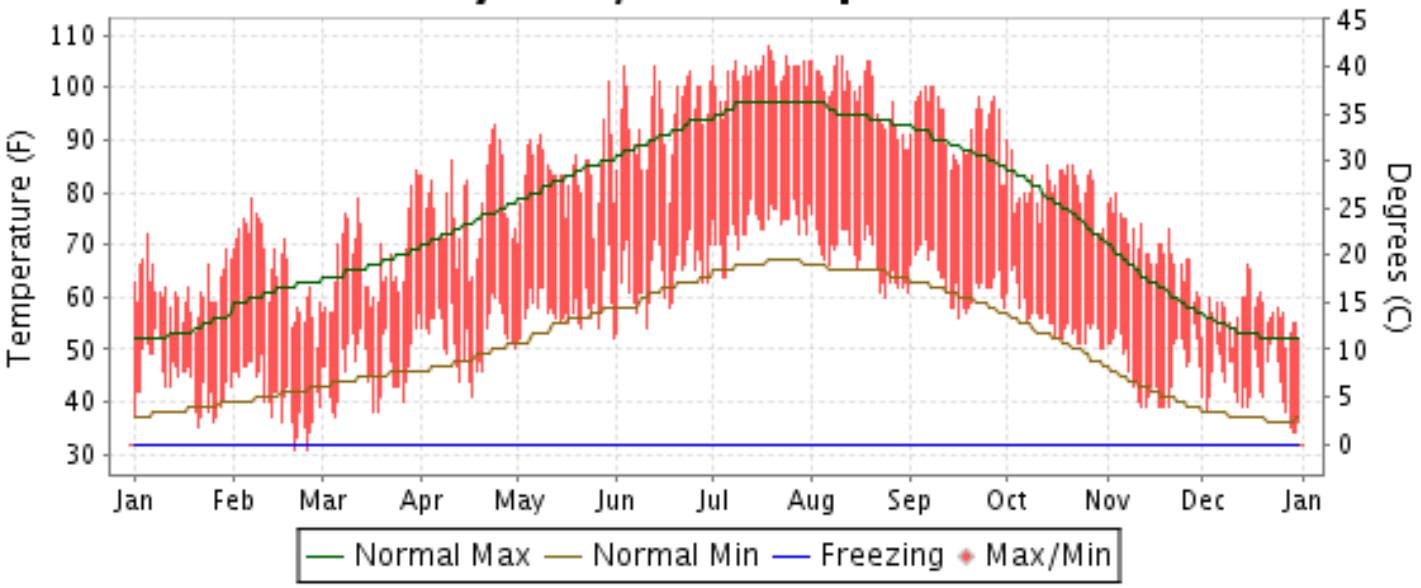
NOAA/National Centers for Environmental Information
Attn: User Engagement & Services Branch
151 Patton Avenue
Asheville, NC 28801-5001

2018
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

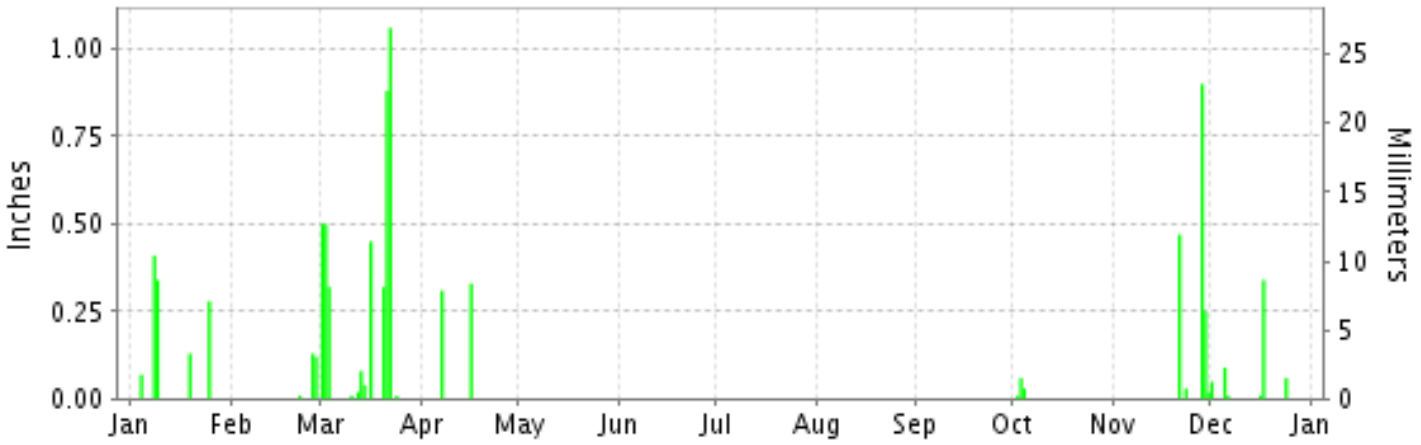
ISSN 0198-0890

FRESNO,
CALIFORNIA (KFAT)

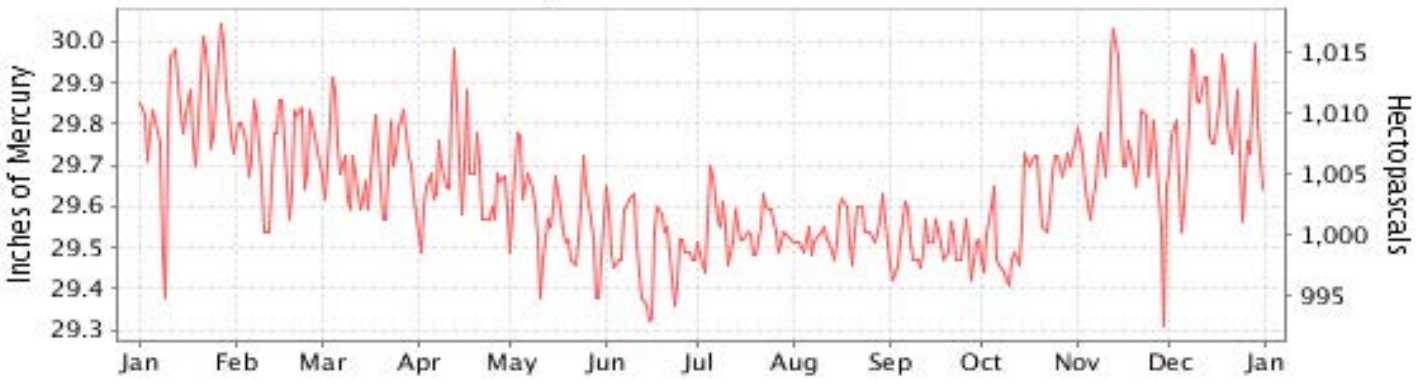
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CENTERS for ENVIRONMENTAL INFORMATION (NCEI) ASHEVILLE, NORTH CAROLINA

Mary J. Wohlgemuth

DIRECTOR NCEI

METEOROLOGICAL DATA FOR 2018
FRESNO (KFAT)

LATITUDE: 36° 46'N **LONGITUDE:** 119° 43'W **ELEVATION (FT):** GRND: 333 BARO: 375 **TIME ZONE:** PACIFIC (UTC -8) **WBAN:** 93193

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	61.4	65.6	67.4	77.6	84.1	94.6	102.8	98.5	92.9	80.7	69.2	56.8	79.3
	HIGHEST DAILY MAXIMUM	72	79	84	93	101	104	108	106	100	90	80	66	108
	DATE OF OCCURRENCE	05	07	30	24	29	13+	18	10+	08+	01	04	15	JUL 18
	MEAN DAILY MINIMUM	43.7	40.8	46.3	52.3	57.7	64.1	73.7	67.5	63.0	55.5	46.4	43.1	54.5
	LOWEST DAILY MINIMUM	35	31	37	41	51	53	64	60	56	50	39	34	31
	DATE OF OCCURRENCE	21	24+	05	17	01	01	05+	24	16	31+	20+	30+	FEB 24+
	AVERAGE DRY BULB	52.5	53.2	56.8	64.9	70.9	79.4	88.2	83.0	78.0	68.1	57.8	50.0	66.9
	MEAN WET BULB	48.4		50.2	54.4	57.8	61.1	66.4	63.8	60.4	55.8	49.4	46.5	
	MEAN DEW POINT	45.1		43.8	45.5	47.2	46.9	52.2	50.8	47.5	45.6	41.6	43.1	
	NUMBER OF DAYS WITH:													
	MAXIMUM >= 90°	0	0	0	3	5	22	31	29	20	1	0	0	111
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM <= 32°	0	2	0	0	0	0	0	0	0	0	0	0	2
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	376	324	258	70	4	0	0	0	0	9	209	458	1708
	COOLING DEGREE DAYS	0	0	10	78	193	440	729	566	399	112	2	0	2529
RH	MEAN (PERCENT)	79	58	66	54	46	36	32	38	38	49	61	80	53
	HOUR 04 LST	92	78	82	77	69	58	48	59	59	68	74	90	71
	HOUR 10 LST	76	52	58	44	39	29	27	31	30	41	52	76	46
	HOUR 16 LST	64	37	48	32	27	18	17	17	19	30	45	69	35
	HOUR 22 LST	85	64	73	62	52	41	36	43	41	54	70	86	59
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY <= 1/4 MI)	6	0	2	0	0	0	0	0	0	0	2	8	18
	THUNDERSTORMS	0	0	1	0	0	0	0	0	0	1	0	0	2
PR	MEAN STATION PRESS. (IN.)	29.83	29.75	29.70	29.67	29.57	29.50	29.54	29.54	29.50	29.59	29.73	29.80	29.64
	MEAN SEA-LEVEL PRESS. (IN.)	30.18	30.11	30.05	30.02	29.91	29.84	29.89	29.88	29.85	29.94	30.04	30.15	29.99
WINDS	RESULTANT SPEED (MPH)	0.8		0.3	5.1	7.2	6.1	6.2	5.9	4.3	1.5	0.4	0.4	
	RES. DIR. (TENS OF DEGS.)	33		10	32	31	31	30	31	31	30	10	06	
	MEAN SPEED (MPH)	3.9	4.4	6.3	7.6	8.5	7.9	7.7	7.3	6.0	4.3	3.0	2.9	5.8
	PREVAIL.DIR.(TENS OF DEGS.)	29	30	12	32	30	31	30	31	31	30	29	11	30
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	23	29	25	30	25	25	22	23	21	24	26	21	30
	DIR. (TENS OF DEGS.)	13	30	15	29	28	30	31	30	31	31	14	30	29
	DATE OF OCCURRENCE	09	11	22	16	30	09	06	04	12	06	29	25	APR 16
	MAXIMUM 3-SECOND WIND:													
	SPEED (MPH)	28	35	33	36	32	32	27	28	24	29	31	24	36
	DIR. (TENS OF DEGS.)	13	30	11	30	28	31	31	30	31	31	14	30	30
	DATE OF OCCURRENCE	09	11	20	16	30	09	20	04	12	06	29	25	APR 16
PRECIPITATION	WATER EQUIVALENT:	1.23	0.26	4.19	0.64	T	0.00	0.00	0.00	0.00	0.10	1.67	0.56	8.65
	TOTAL (IN.)	0.47	0.25	1.36	0.33	T	0.00	0.00	0.00	0.00	0.09	1.01	0.35	1.36
	GREATEST 24-HOUR (IN.)	08-09	26-27	21-22	16	25					03-04	28-29	16-17	MAR 21-22
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	5	3	12	2	0	0	0	0	0	3	5	6	36
	PRECIPITATION 0.01	4	2	7	2	0	0	0	0	0	0	3	1	19
	PRECIPITATION 0.10	0	0	1	0	0	0	0	0	0	0	0	0	1
	PRECIPITATION 1.00													
SNOWFALL	SNOW,ICE PELLETS,HAIL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL (IN.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	0	0	0	0	0	0	0	0	0	0	0	0	0
	SNOWFALL >= 1.0													

NORMALS, MEANS, AND EXTREMES
FRESNO (KFAT)

LATITUDE: 36° 46'N **LONGITUDE:** 119° 43'W **ELEVATION (FT):** GRND: 333 BARO: 375 **TIME ZONE:** PACIFIC (UTC -8) **WBAN:** 93193

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	54.8	61.6	67.6	74.6	84.1	92.0	98.4	97.1	90.9	79.5	65.1	54.9	76.7
	MEAN DAILY MAXIMUM	69	55.0	61.8	67.5	74.6	83.6	91.9	98.5	96.6	90.9	79.8	65.5	55.1	76.7
	HIGHEST DAILY MAXIMUM	69	78	80	91	100	107	110	113	112	111	102	90	77	113
	YEAR OF OCCURRENCE		2014	2014	2015	1981	1984	2017	2006	1996	1955	1980	2010	2006	JUL 2006
	MEAN OF EXTREME MAXS.	69	67.7	73.4	80.6	90.1	98.8	105.1	107.2	105.7	102.3	93.5	79.8	67.2	89.3
	NORMAL DAILY MINIMUM	30	38.3	41.5	45.6	49.4	56.2	62.4	67.6	66.2	61.5	53.0	43.4	38.0	51.9
	MEAN DAILY MINIMUM	69	38.0	41.0	44.2	48.3	54.7	60.9	66.3	64.5	60.1	51.6	42.9	37.5	50.8
	LOWEST DAILY MINIMUM	69	19	24	26	32	36	44	50	49	37	27	26	18	18
	YEAR OF OCCURRENCE		1963	1990	1966	1982	1975	1955	1955	1966	1950	1972	1975	1990	DEC 1990
	MEAN OF EXTREME MINS.	69	28.3	31.7	34.8	39.0	45.0	51.4	57.6	57.0	51.3	41.8	33.0	28.2	41.6
	NORMAL DRY BULB	30	46.6	51.5	56.6	62.0	70.1	77.2	83.0	81.7	76.2	66.2	54.3	46.5	64.3
	MEAN DRY BULB	69	46.5	51.4	55.9	61.5	69.2	76.5	82.4	80.6	75.5	65.8	54.2	46.3	63.8
	MEAN WET BULB	35	42.5	45.5	48.1	49.3	52.4	56.3	60.2	59.6	57.0	52.3	46.9	41.5	51.0
	MEAN DEW POINT	35	42.5	44.6	47.3	47.5	50.3	54.3	58.2	57.6	55.3	50.9	45.5	41.1	49.6
	NORMAL NO. DAYS WITH:														
	MAXIMUM >= 90	30	0.0	0.0	0.0	1.8	8.7	18.5	28.7	27.1	18.1	3.3	0.0	0.0	106.2
	MAXIMUM <= 32	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MINIMUM <= 32	30	5.6	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.1	13.2
	MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H/C	NORMAL HEATING DEG. DAYS	30	572	377	265	136	30	3	0	0	2	61	325	575	2346
	NORMAL COOLING DEG. DAYS	30	0	0	5	46	190	369	558	516	338	100	2	0	2124
RH	NORMAL (PERCENT)		84	77	70	57	48	43	40	44	49	58	74	83	61
	HOUR 04 LST	30	92	90	87	80	71	65	62	66	71	78	88	92	79
	HOUR 10 LST	30	85	77	66	51	44	39	38	41	45	52	71	83	58
	HOUR 16 LST	30	69	57	49	35	28	24	22	25	28	35	53	67	41
	HOUR 22 LST	30	89	83	76	62	51	44	42	46	51	63	81	88	65
S	PERCENT POSSIBLE SUNSHINE	46	47	65	77	85	90	95	97	96	94	88	66	46	79
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	55	10.2	4.5	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.5	4.5	9.7	30.9
	THUNDERSTORMS	69	0.2	0.4	0.8	0.6	0.6	0.4	0.2	0.2	0.6	0.5	0.2	0.3	5.0
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY														
	CLOUDY														
PR	MEAN STATION PRESSURE(IN)	35	29.80	29.74	29.70	29.65	29.58	29.52	29.53	29.53	29.53	29.63	29.75	29.77	29.64
	MEAN SEA-LEVEL PRES. (IN)	35	30.16	30.09	30.05	30.00	29.92	29.87	29.87	29.87	29.88	29.98	30.10	30.15	30.00
WINDS	MEAN SPEED (MPH)	35	4.1	5.0	5.9	7.4	8.3	8.3	7.4	6.9	6.0	4.7	3.9	4.0	6.0
	PREVAIL.DIR(TENS OF DEGS)	43	12	32	32	32	31	31	31	31	31	31	31	12	31
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	23	38	36	36	36	32	33	24	26	31	35	31	35	38
	DIR. (TENS OF DEGS)		16	13	29	29	32	30	30	31	29	28	27	28	16
	YEAR OF OCCURRENCE		2005	1998	2017	1999	1998	2012	2015	2014	2013	2007	2016	2008	JAN 2005
	MAXIMUM 3-SECOND														
	SPEED (MPH)	23	46	43	42	41	39	40	33	41	36	45	39	45	46
	DIR. (TENS OF DEGS)		16	29	29	32	32	31	07	31	29	33	27	01	16
	YEAR OF OCCURRENCE		2005	1999	2017	2002	2008	2012	2007	2013	2013	2009	2016	2011	JAN 2005
PRECIPITATION	NORMAL (IN)	30	2.19	2.03	2.03	0.95	0.43	0.21	0.01	0.01	0.17	0.63	1.07	1.77	11.50
	MAXIMUM MONTHLY (IN)	69	8.56	6.12	7.24	4.41	1.65	1.93	0.43	0.25	1.19	2.45	3.50	6.73	8.56
	YEAR OF OCCURRENCE		1969	2000	1991	1967	1990	1998	2015	1964	1976	2000	1972	1955	JAN 1969
	MINIMUM MONTHLY (IN)	69	0.04	T	0.00	T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	YEAR OF OCCURRENCE		1976	1964	1972	2008	1982	1983	1983	1981	1981	1978	1959	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	69	2.74	1.99	2.43	2.04	1.42	1.80	0.36	0.25	0.97	1.76	1.35	1.82	2.74
	YEAR OF OCCURRENCE		2006	1969	1995	2017	1990	1998	2015	1964	1978	1992	1953	2007	JAN 2006
	NORMAL NO. DAYS WITH:														
	PRECIPITATION >= 0.01	30	7.6	8.6	7.5	4.5	2.2	0.7	0.2	0.3	1.0	2.5	5.5	7.5	48.1
	PRECIPITATION >= 1.00	30	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	1.3
SNOWFALL	NORMAL (IN)	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MAXIMUM MONTHLY (IN)	59	2.2	T	T	T	0.0	T	T	T	T	T	0.0	1.2	2.2
	YEAR OF OCCURRENCE		1962	1994	2011	2017	2018	2013	2013	2017	2011	1974		1968	JAN 1962
	MAXIMUM IN 24 HOURS (IN)	59	1.5	T	T	T	T	T	0.0	0.0	0.0	T	0.0	1.2	1.5
	YEAR OF OCCURRENCE'		1962	1994	2011	2017	2015	1995				1974		1968	JAN 1962
	MAXIMUM SNOW DEPTH (IN)	58	0	0	0	0	0	0	0	0	0	0	0	1	1
	YEAR OF OCCURRENCE													1968	DEC 1968
	NORMAL NO. DAYS WITH:														
	SNOWFALL >= 1.0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PRECIPITATION (inches) 2018 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1989	0.48	1.18	2.25	0.05	0.89	0.00	0.00	0.03	1.11	0.42	0.50	0.00	6.91
1990	2.82	1.33	0.67	0.92	1.65	0.00	T	0.00	0.15	0.05	0.46	0.68	8.73
1991	0.13	1.01	7.24	0.02	0.03	T	0.00	T	T	0.80	0.04	1.22	10.49
1992	1.94	4.73	2.14	0.18	T	T	0.22	T	T	2.19	T	2.68	14.08
1993	5.18	2.44	1.76	0.20	0.25	1.61	0.00	0.00	0.00	0.12	1.16	1.03	13.75
1994	1.15	1.92	0.52	1.36	1.30	0.00	T	0.00	0.20	0.77	1.57	1.33	10.12
1995	5.42	0.93	5.88	1.08	1.19	0.66	0.01	T	0.00	0.00	T	2.12	17.29
1996	2.07	3.57	1.52	1.17	0.38	0.08	T	0.00	0.00	1.97	1.94	4.27	16.97
1997	3.53	0.17	0.10	T	T	0.01	T	0.00	0.15	0.07	2.66	0.99	7.68
1998	3.40	4.89	3.44	1.26	1.37	1.93	0.00	0.00	0.15	0.16	0.43	0.62	17.65
1999	2.82	1.18	0.49	0.93	0.03	0.20	0.00	0.01	T	T	0.48	0.03	6.17
2000	3.15	6.12	1.35	1.16	0.05	0.56	0.00	T	0.32	2.45	0.01	0.07	15.24
2001	2.66	2.22	0.96	1.87	0.00	0.00	0.08	0.00	T	0.29	1.99	1.95	12.02
2002	0.76	0.40	0.95	0.21	0.38	0.02	0.00	0.00	T	0.00	1.78	2.25	6.75
2003	0.40	1.22	0.63	2.84	0.68	0.00	T	0.04	T	T	0.40	2.93	9.14
2004	0.88	1.69	1.54	0.03	0.07	0.00	0.00	0.00	0.00	2.45	0.81	3.16	10.63
2005	2.42	2.30	2.51	0.56	1.62	0.01	0.00	T	0.04	0.05	0.17	2.00	11.68
2006	3.40	0.54	4.73	3.27	0.36	0.00	T	0.00	0.00	0.08	0.23	1.33	13.94
2007	0.59	2.29	0.97	0.49	0.05	0.00	T	0.02	0.02	0.20	0.09	2.31	7.03
2008	3.32	2.12	0.02	T	0.30	0.00	0.01	0.00	0.00	0.23	1.37	1.09	8.46
2009	1.02	2.43	0.24	0.72	0.46	0.20	0.00	T	0.01	1.39	0.20	2.41	9.08
2010	2.05	2.94	0.96	2.19	0.21	0.00	T	0.00	0.00	0.44	1.80	5.92	16.51
2011	1.71	1.60	3.46	0.32	0.35	1.91	T	0.00	T	0.90	0.67	0.00	10.92
2012	1.38	0.75	2.43	2.02	0.00	T	T	T	0.00	0.25	1.11	2.03	9.97
2013	0.58	0.89	0.65	0.09	0.07	T	T	T	0.01	0.03	0.54	0.15	3.01
2014	0.57	2.11	0.62	0.74	0.04	0.00	0.01	T	0.18	0.50	0.40	2.29	7.46
2015	0.21	1.13	0.06	1.25	0.57	0.01	0.43	0.00	0.12	0.49	1.74	2.97	8.98
2016	4.42	0.33	2.93	1.06	0.29	0.06	0.00	0.00	0.00	0.67	1.38	2.51	13.65
2017	5.50	2.52	1.08	3.42	0.12	0.00	0.00	T	0.16	0.09	0.28	0.04	13.21
2018	1.23	0.26	4.19	0.64	T	0.00	0.00	0.00	0.00	0.10	1.67	0.56	8.65
POR= 69 YRS	2.11	1.85	1.84	1.06	0.34	0.15	0.01	0.01	0.15	0.51	1.13	1.63	10.79

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AVERAGE TEMPERATURE (°F) 2018 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1989	42.9	48.8	57.9	67.3	69.6	77.0	82.5	79.3	74.3	65.3	54.3	43.8	63.6
1990	45.5	48.0	57.3	65.7	68.1	76.8	84.0	80.6	75.8	67.7	52.9	41.5	63.7
1991	47.0	55.8	51.5	59.5	66.1	74.7	83.8	78.6	79.9	70.5	55.8	47.0	64.2
1992	42.7	55.5	58.8	66.8	76.0	77.0	81.3	83.2	77.0	68.6	54.3	45.3	65.5
1993	47.1	51.9	60.3	61.7	69.9	75.7	80.2	79.7	75.7	67.8	53.9	45.6	64.1
1994	46.9	49.9	59.3	63.2	68.5	77.7	83.3	82.3	75.4	64.8	48.1	45.3	63.7
1995	51.9	54.1	56.2	60.7	66.2	73.3	80.7	82.6	76.3	66.8	58.7	50.5	64.8
1996	48.3	54.2	57.2	63.6	69.9	77.8	85.4	83.4	74.8	64.1	53.9	49.1	65.1
1997	48.7	50.3	60.0	63.5	75.3	75.8	81.3	80.6	77.3	63.8	56.9	44.7	64.9
1998	49.0	50.0	55.5	59.0	62.0	71.5	82.1	84.1	75.8	63.1	53.1	42.8	62.3
1999	44.7	49.9	53.5	58.5	68.0	75.9	80.6	78.4	77.3	68.7	56.9	47.0	63.3
2000	50.2	53.8	56.5	64.2	71.0	79.8	78.8	81.2	74.5	63.9	49.2	47.8	64.2
2001	46.2	48.7	58.8	58.6	77.3	79.7	81.6	81.9	77.0	68.5	56.4	47.4	65.2
2002	45.0	52.2	55.1	62.8	69.6	78.1	84.1	80.0	77.1	65.2	56.2	49.3	64.6
2003	50.6	51.1	58.1	58.6	69.5	78.4	86.5	81.4	79.2	69.8	52.2	49.3	65.4
2004	46.6	50.5	62.6	65.8	70.9	77.4	83.3	81.3	75.9	64.1	51.7	46.5	64.7
2005	47.4	54.4	57.8	59.6	69.4	73.6	86.8	84.0	73.9	65.9	57.6	51.0	65.1
2006	48.7	52.4	50.1	59.7	71.9	80.7	87.9	80.2	75.8	64.0	55.4	47.1	64.5
2007	43.7	51.4	60.3	63.0	71.5	78.0	83.2	82.8	73.7	64.4	57.4	45.5	64.6
2008	47.0	51.1	57.0	61.7	70.3	79.1	83.8	84.1	78.0	67.1	57.5	44.9	65.1
2009	47.7	51.5	56.0	62.0	75.3	75.7	85.0	81.8	79.7	63.7	54.1	47.2	65.0
2010	48.6	52.2	55.5	57.7	65.2	77.6	83.1	79.9	76.9	68.0	53.8	50.9	64.1
2011	46.6	49.2	55.4	60.7	65.1	75.0	82.0	82.4	80.3	68.0	53.5	45.6	63.7
2012	49.3	52.7	56.2	63.0	72.4	77.9	83.4	86.6	81.4	69.1	58.3	50.9	66.8
2013	47.1	51.0	62.1	67.6	73.0	80.9	87.1	83.0	77.9	66.6	58.5	47.3	66.8
2014	53.2	56.8	62.4	66.8	74.2	80.9	86.9	84.4	80.7	72.0	57.7	51.9	69.0
2015	49.0	57.0	64.0	64.3	68.5	82.0	83.1	82.4	78.7	71.3	52.0	45.8	66.5
2016	50.0	55.5	58.7	65.3	71.3	80.9	84.0	82.5	76.1	66.4	57.6	47.1	66.3
2017	48.1	53.9	58.8	62.1	71.0	80.5	86.5	85.2	77.2	65.7	58.0	48.0	66.3
2018	52.5	53.2	56.8	64.9	70.9	79.4	88.2	83.0	78.0	68.1	57.8	50.0	66.9
POR= 69 YRS	46.5	51.4	55.9	61.5	69.2	76.5	82.4	80.6	75.5	65.8	54.2	46.3	63.8

HEATING DEGREE DAYS (base 65°F) 2018 FRESNO (KFAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1989-90	0	0	7	73	310	649	598	470	236	35	19	1	2398
1990-91	0	0	0	17	356	722	549	253	412	163	65	0	2537
1991-92	0	0	0	81	276	551	683	267	183	25	0	1	2067
1992-93	0	0	0	18	316	602	549	359	145	113	9	12	2123
1993-94	0	0	0	12	326	595	553	414	168	97	37	0	2202
1994-95	0	0	0	58	500	602	398	298	269	146	60	16	2347
1995-96	0	0	0	30	184	444	513	304	238	99	8	0	1820
1996-97	0	0	0	148	329	486	500	405	169	97	2	0	2136
1997-98	0	0	0	92	246	621	490	412	293	226	104	7	2491
1998-99	0	0	7	79	351	682	619	418	348	227	35	12	2778
1999-00	0	0	0	14	235	550	452	317	259	72	27	3	1929
2000-01	0	0	0	103	466	526	577	451	208	222	0	0	2553
2001-02	0	0	0	23	251	538	610	352	310	109	30	0	2223
2002-03	0	0	0	67	256	477	440	382	216	191	49	0	2078
2003-04	0	0	0	24	378	482	565	413	113	64	3	0	2042
2004-05	0	0	6	124	391	566	537	291	217	158	30	1	2321
2005-06	0	0	0	41	217	424	500	345	456	170	9	0	2162
2006-07	0	0	2	56	283	546	654	373	158	117	19	1	2209
2007-08	0	0	6	59	223	600	552	396	243	149	20	0	2248
2008-09	0	0	0	39	219	616	531	369	274	145	0	0	2193
2009-10	0	0	2	87	322	544	500	352	289	227	62	0	2385
2010-11	0	0	0	40	346	432	563	438	292	138	67	7	2323
2011-12	0	0	0	29	338	595	478	352	268	129	6	2	2197
2012-13	0	0	0	38	205	432	545	386	107	42	4	0	1759
2013-14	0	0	0	32	189	540	361	223	88	68	3	0	1504
2014-15	0	0	0	5	216	401	487	217	83	85	25	0	1519
2015-16	0	0	0	5	385	587	456	268	189	47	10	0	1947
2016-17	0	0	2	23	226	544	514	305	202	94	26	4	1940
2017-18	0	0	4	45	209	523	376	324	258	70	4	0	1813
2018-	0	0	0	9	209	458							

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COOLING DEGREE DAYS (base 65°F) 2018 FRESNO (KFAT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1989	0	0	4	129	166	366	546	449	291	90	0	0	2041
1990	0	0	2	61	122	360	595	490	333	108	0	0	2071
1991	0	0	0	6	107	298	588	428	454	259	5	0	2145
1992	0	0	0	88	350	366	511	572	365	135	0	0	2387
1993	0	0	3	20	168	342	476	462	331	105	0	0	1907
1994	0	0	1	52	151	389	576	547	318	59	0	0	2093
1995	0	0	0	25	104	273	494	551	347	91	0	0	1885
1996	0	0	4	66	162	389	640	579	300	125	0	0	2265
1997	0	0	18	61	330	334	514	492	373	61	11	0	2194
1998	0	0	6	50	18	210	536	600	338	25	0	0	1783
1999	0	0	0	39	135	348	487	423	373	135	0	0	1940
2000	0	0	0	54	217	454	434	509	291	81	0	0	2040
2001	0	0	20	37	389	447	521	533	365	137	0	0	2449
2002	0	0	9	50	180	400	599	472	372	81	0	0	2163
2003	0	0	7	5	192	406	671	518	431	180	0	0	2410
2004	0	0	45	97	188	376	576	514	341	99	0	0	2236
2005	0	0	4	2	170	266	682	597	271	79	2	0	2073
2006	0	0	0	20	231	478	715	475	337	31	1	0	2288
2007	0	0	20	64	229	396	569	560	274	50	0	0	2162
2008	0	0	0	54	192	431	592	599	394	114	1	0	2377
2009	0	0	1	62	330	328	628	527	451	53	3	0	2383
2010	0	0	0	15	72	386	563	470	364	144	17	0	2031
2011	0	0	1	18	81	315	535	546	466	128	0	0	2090
2012	0	0	2	77	242	391	577	677	495	172	11	0	2644
2013	0	0	23	124	260	483	691	565	394	85	0	0	2625
2014	0	0	12	132	299	485	687	606	479	230	2	0	2932
2015	0	0	58	70	145	513	568	545	418	205	2	0	2524
2016	0	0	1	63	214	487	598	552	344	73	10	0	2342
2017	0	0	17	13	221	477	674	637	375	72	4	0	2490
2018	0	0	10	78	193	440	729	566	399	112	2	0	2529

SNOWFALL (inches) 2018 FRESNO (KFAT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1990-91	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1996-97	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	T
1998-99	0.0	0.0	0.0	0.0	0.0	0.5	T	T	0.0	0.0	0.0	0.0	0.5
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
2000-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2002-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004-05	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
2005-	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
2006-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008-09	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
2009-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2010-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
2011-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012-13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013-	0.0	0.0	0.0	0.0	0.0	0.0							
2013-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014-15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T
2015-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
2017-18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018-	0.0	0.0	0.0	0.0	0.0	0.0							
POR= 69 YRS	0.0	0.0	0.0	T	0.0	T	T	T	T	T	T	T	T

WBAN : 93193

REFERENCE NOTES :

PAGE 1:
THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).
PAGE 2 AND 3:
H/C INDICATES HEATING AND COOLING DEGREE DAYS.
RH INDICATES RELATIVE HUMIDITY
W/O INDICATES WEATHER AND OBSTRUCTIONS
S INDICATES SUNSHINE.
PR INDICATES PRESSURE.
CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).
GENERAL:
T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.
+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.
ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.
PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.
POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING.
WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.
0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.
CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET
CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.
GENERAL CONTINUED:
WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.
RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.
AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.
SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL.
A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.
DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.
DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.
WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.
ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.
STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED SATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS:
http://www.ncdc.noaa.gov/homr/
SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.

NOTE:

The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.

2018
FRESNO
CALIFORNIA (KFAT)

Fresno is located about midway and toward the eastern edge of the San Joaquin Valley, which is oriented northwest to southeast and has a length of about 225 miles and an average width of 50 miles. The San Joaquin Valley is generally flat. About 15 miles east of Fresno the terrain slopes upward with the foothills of the Sierra Nevada. The Sierra Nevada attain an elevation of more than 14,000 feet 50 miles east of Fresno. West of the city 45 miles lie the foothills of the Coastal Range.

The climate of Fresno is dry and mild in winter and hot in summer. Nearly nine-tenths of the annual precipitation falls in the six months from November to April.

Due to clear skies during the summer and the protection of the San Joaquin Valley from marine effects, the normal daily maximum temperature reaches the high 90s during the latter part of July. The daily maximum temperature during the warmest month has ranged from 76 to ll5 degrees. Low relative humidities and some wind movement substantially lower the sensible temperature during periods of high readings. Humidity readings of 15 percent are common on summer afternoons, and readings as low as 8 percent have been recorded. In contrast to this, humidity readings average 90 percent during the morning hours of December and January.

Winds flow with the major axis of the San Joaquin Valley, generally from the northwest. This feature is especially beneficial since, during the warmest months, the northwest winds increase during the evenings. These refreshing breezes and the normally large temperature variation of about 35 degrees between the highest and lowest readings of the day, generally result in comfortable evening and night temperatures.

Winter temperatures are usually mild with infrequent cold spells dropping the readings below freezing. Heavy frost occurs almost every year, and the first frost usually occurs during the last week of November. The last frost in spring is usually in early March, however, one year in five will have the last frost after the first of April. The growing season is 291 days.

Although the heaviest rains recorded at Fresno for short periods have occurred in June, usually any rainfall during the summer is very light. Snow is a rare occurrence in Fresno.

Fresno enjoys a very high percentage of sunshine, receiving more than 80 percent of the possible amounts during all but the four months of November, December, January, and February. Reduction of sunshine during these months is caused by fog and short periods of stormy weather.

During foggy periods, at times lasting nearly two weeks, sunshine is reduced to a minimum. This fog frequently lifts to a few hundred feet above the surface of the valley and presents the appearance of a heavy, solid cloud layer.

Spring and autumn are very enjoyable seasons in Fresno, with clear skies, light rainfall and winds and mild temperatures.

Station History

FRESNO, CA

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
FRESNO AIR TERMINAL	1949-08-31	1961-01-01	36° 46'	-119° 42'	338		AIRWAYS,COOP,USHCN
FRESNO AIR TERMINAL	1961-09-01	1978-01-01	36° 46'	-119° 43'	328	.9 MI W	AIRWAYS,COOP,USHCN
FRESNO YOSEMITE INTL AP	1995-09-01	1995-11-15	36° 46'	-119° 43'	333	.5 MI WSW	ASOS,COOP,USHCN
FRESNO YOSEMITE INT'L	2017-10-01	Present	36° 46'	-119° 43'	333		ASOS,COOP,PLCD,USHCN
FRESNO AIR TERMINAL	1949-08-20	1949-08-31	36° 46'	-119° 42'	338	7 MI ENE	AIRWAYS,COOP,USHCN
FRESNO AIR TERMINAL	1978-01-01	1985-02-01	36° 46'	-119° 43'	328		COOP,USHCN,WXSVC
FRESNO YOSEMITE INT'L	2016-08-22	2017-10-01	36° 46'	-119° 43'	333		ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1985-02-01	1993-11-10	36° 46'	-119° 43'	336	1 MI NNE	COOP,USHCN,WXSVC
FRESNO YOSEMITE INTL AP	1995-11-15	2010-06-24	36° 46'	-119° 43'	333		ASOS,COOP,USHCN
FRESNO AIR TERMINAL	1961-01-01	1961-09-01	36° 46'	-119° 43'	328		AIRWAYS,COOP,USHCN
FRESNO AIR TERMINAL	1947-10-01	1949-08-01	36° 46'	-119° 42'			AIRWAYS
FRESNO AIR TERMINAL	1993-11-10	1995-09-01	36° 46'	-119° 43'	336		COOP,USHCN,WXSVC
FRESNO AIR TERMINAL	1949-08-01	1949-08-20	36° 46'	-119° 42'	338		AIRWAYS
FRESNO YOSEMITE INTL AP	2010-06-24	2016-08-22	36° 46'	-119° 43'	333		ASOS,COOP,USHCN

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1969-04-01	1982-01-01	DAILY	2400			
MAX/MINTEM	1982-01-01	1985-02-01	DAILY	0800	PALMER		
TEMP	2000-08-23	2000-08-24	DAILY	2400			
WIND	2000-08-23	2001-06-04	HOURLY	UNKN	ANEMCUP		
WIND	2001-06-04	2007-04-03	HOURLY	UNKN	ANEMCUP		
PRECIP	2010-06-24	2016-08-22	HOURLY	VAR	AWPAG	RCRD;HTD	
TEMP	1995-07-01	1995-09-01	DAILY	2400	MXMN		
PRECIP	1995-09-01	2000-08-23	HOURLY	2400	TB	RCRD	
PRECIP	2001-06-04	2007-04-03	HOURLY	2400	AHTB	RCRD;HTD	
TEMP	2007-04-03	2010-06-24	DAILY	2400	ATEMP		
TEMP	2010-06-24	Present	DAILY	2400	ATEMP		
MAX/MINTEM	1969-04-01	1982-01-01	DAILY	0800	PALMER		
PRECIP	1985-02-01	1995-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	2000-08-23	2001-06-04	HOURLY	2400	TB	RCRD	
WIND	2010-06-24	Present	HOURLY	UNKN	ANEMSONIC		
PRECIP	1947-10-01	1969-04-01	DAILY	2400	UNIV	RCRD	
PRECIP	2007-04-03	2010-06-24	DAILY	2400	AHTB	RCRD;HTD	
MAX/MINTEM	1969-04-01	1982-01-01	DAILY	0800	PALMER		
PRECIP	1982-01-01	1985-02-01	DAILY	2400	UNIV	RCRD	
TEMP	1947-10-01	1969-04-01	DAILY	2400			
PRECIP	1969-04-01	1982-01-01	DAILY	2400	UNIV	RCRD	
PRECIP	1982-01-01	1985-02-01	HOURLY	2400			
TEMP	1985-02-01	1995-07-01	DAILY	2400	MXMN		
PRECIP	1995-07-01	1995-09-01	HOURLY	2400	UNIV	RCRD	
PRECIP	1995-07-01	1995-09-01	DAILY	2400	UNIV	RCRD	
TEMP	1995-09-01	2000-08-23	DAILY	2400	HYGR		
PRECIP	2001-06-04	2007-04-03	DAILY	2400	AHTB	RCRD;HTD	
TEMP	2010-06-24	2016-08-22	DAILY	1700	ATEMP		
TEMP	1982-01-01	1985-02-01	DAILY	2400			
PRECIP	1985-02-01	1995-07-01	HOURLY	2400			
WIND	1995-09-01	2000-08-23	HOURLY	UNKN	ANEMCUP		
PRECIP	2000-08-23	2001-06-04	DAILY	2400	TB	RCRD	
TEMP	2000-08-23	2001-06-04	DAILY	2400	HYGR		
PRECIP	2007-04-03	2010-06-24	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	2010-06-24	Present	HOURLY	2400	AWPAG	RCRD;HTD	
MAX/MINTEM	1982-01-01	1985-02-01	DAILY	0800	PALMER		
PRECIP	1995-09-01	2000-08-23	DAILY	2400	TB	RCRD	
TEMP	2001-06-04	2007-04-03	DAILY	2400	ATEMP		
WIND	2007-04-03	2010-06-24	HOURLY	UNKN	ANEMSONIC		
PRECIP	2010-06-24	Present	DAILY	2400	PCPNX		

* For explanation of codes and abbrevitions see Station Metadata link below.

Other Station Information can be found at:
ASOS Implementation by NWS: http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm
Station Metadata website: http://www.ncdc.noaa.gov/homr

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