

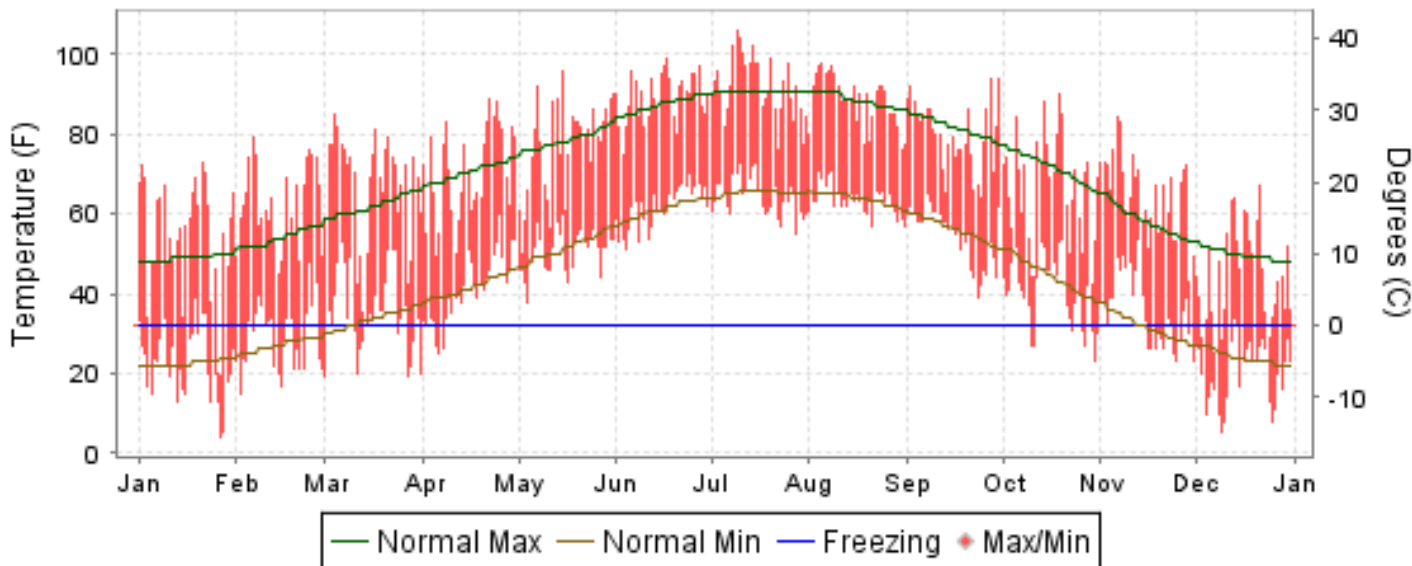


2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

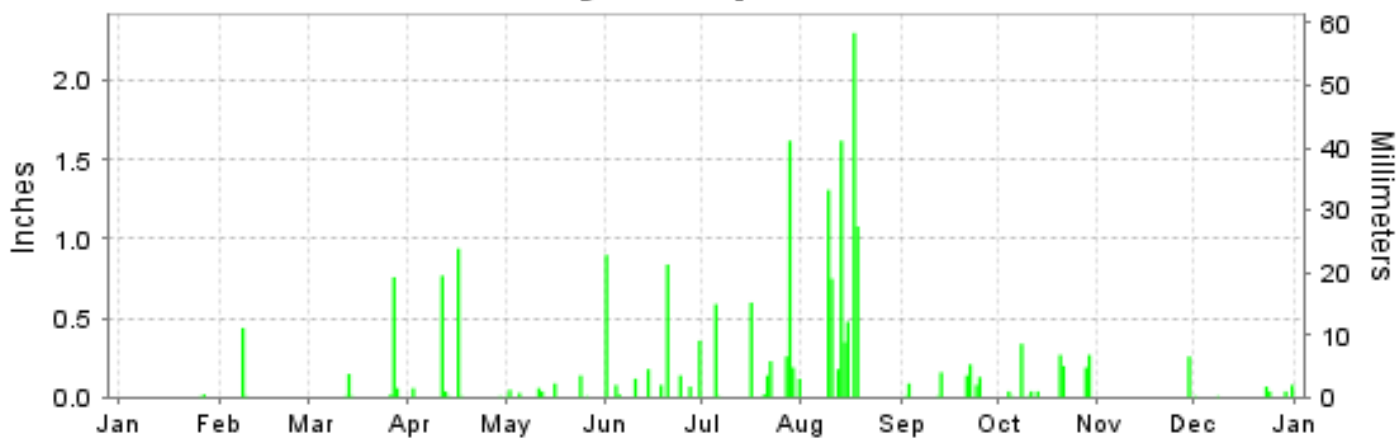
ISSN 0198-490X

AMARILLO, TEXAS (KAMA)

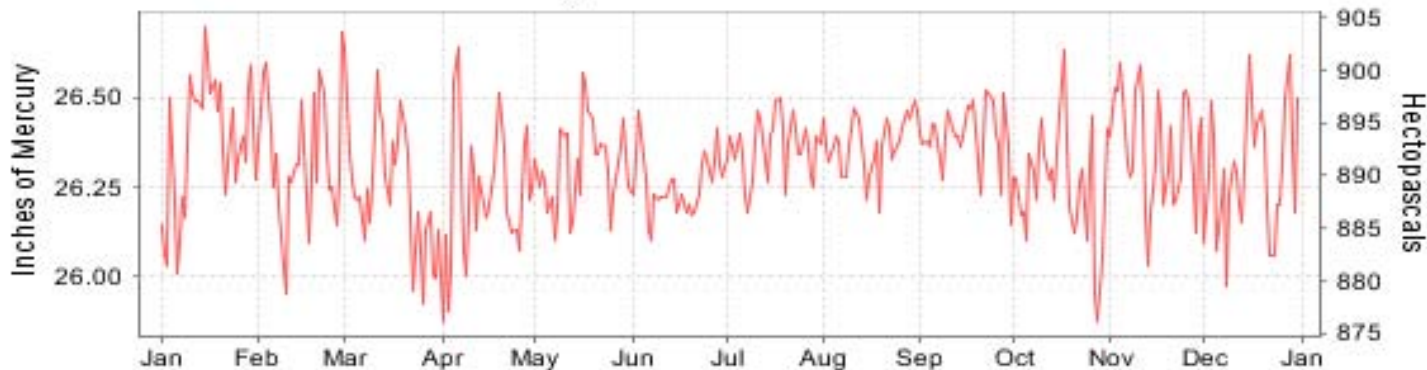
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2009

AMARILLO (KAMA)

LATITUDE: 35° 13'N LONGITUDE: -101° 42'W ELEVATION (FT): GRND: 3592 BARO: 3589 TIME ZONE: CENTRAL (UTC -6) WBAN: 23047

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	54.6	62.3	67.0	70.6	77.0	89.3	92.0	88.4	79.7	66.6	65.0	44.9	71.5	
	HIGHEST DAILY MAXIMUM	73	79	85	89	96	99	106	98	94	90	84	67	106	
	DATE OF OCCURRENCE	21	06	04	22	15	17	09	05	30+	19	06	21	JUL 09	
	MEAN DAILY MINIMUM	22.5	29.0	35.4	41.3	50.7	61.7	64.3	63.5	54.5	40.1	35.8	20.3	43.3	
	LOWEST DAILY MINIMUM	4	15	19	25	38	51	55	57	39	23	23	5	4	
	DATE OF OCCURRENCE	27	02	27+	06	04	04	28	31+	23	30	30+	09	JAN 27	
	AVERAGE DRY BULB	38.6	45.7	51.2	56.0	63.9	75.5	78.2	76.0	67.1	53.4	50.4	32.6	57.4	
	MEAN WET BULB	28.6	34.6	39.0	45.2	53.7	62.4	64.8	64.8	57.7	46.0	40.5	27.0	47.0	
	MEAN DEW POINT	13.1	18.4	23.9	32.4	45.9	54.5	57.0	58.7	51.4	39.9	29.9	19.0	37.0	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	3	17	19	16	3	1	0	0	59	
MAXIMUM <= 32°	2	0	0	0	0	0	0	0	0	0	0	4	6		
MINIMUM <= 32°	26	16	12	4	0	0	0	0	0	8	13	30	109		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	812	536	420	286	113	0	0	0	52	370	432	996	4017	
	COOLING DEGREE DAYS	0	0	0	23	84	323	416	347	123	20	2	0	1338	
RH	MEAN (PERCENT)	43	41	44	49	60	56	55	60	63	69	55	63	55	
	HOUR 00 LST	51	49	51	60	70	71	66	68	76	78	65	71	65	
	HOUR 06 LST	57	58	60	70	79	79	78	79	83	84	72	76	73	
	HOUR 12 LST	32	29	33	37	49	42	41	47	48	57	38	51	42	
	HOUR 18 LST	30	23	29	32	44	41	35	43	44	57	42	53	39	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	2	0	5	4	4	2	2	0	3	7	5	3	37	
	THUNDERSTORMS	0	1	0	4	8	11	12	12	3	3	0	0	54	
CLOUDNESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	26.37	26.33	26.25	26.23	26.31	26.26	26.36	26.37	26.39	26.26	26.37	26.30	26.32	
	MEAN SEA-LEVEL PRESS. (IN.)	30.10	30.02	29.90	29.85	29.91	29.80	29.91	29.93	29.99	29.90	30.04	30.04	29.95	
WINDS	RESULTANT SPEED (MPH)	3.6	4.6	5.2	2.6	4.5	6.6	6.4	6.8	2.0	2.9	4.6	3.3	3.4	
	RES. DIR. (TENS OF DEGS.)	29	23	22	23	13	18	18	17	18	19	23	27	21	
	MEAN SPEED (MPH)	12.3	13.3	14.3	15.8	12.6	12.8	11.9	12.7	10.6	12.9	12.4	12.2	12.8	
	PREVAIL.DIR.(TENS OF DEGS.)	22	20	21	34	15	15	18	20	18	16	20	22	20	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	38	48	45	51	40	49	54	45	36	33	33	54	54	
	DIR. (TENS OF DEGS.)	36	01	26	29	18	05	01	10	32	23	25	25	25	
	DATE OF OCCURRENCE	09	21	30	09	12	30	28	17	25	20	28	08	DEC 08	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	45	61	63	64	52	60	67	58	46	45	46	68	68	
DIR. (TENS OF DEGS.)	36	36	28	26	24	05	36	11	35	12	28	24	24		
DATE OF OCCURRENCE	09	21	30	04	31	30	28	17	21	28	23	08	DEC 08		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.03	0.45	1.01	1.84	0.43	2.79	3.78	8.07	0.83	1.41	0.26	0.25	21.15	
	GREATEST 24-HOUR (IN.)	0.02	0.45	0.80	0.95	0.14	0.90	1.73	3.01	0.35	0.47	0.26	0.11	3.01	
	DATE OF OCCURRENCE	27	08-09	27-28	16-17	24	01	28-29	17-18	21-22	20-21	29	23-24	AUG 17-18	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	2	2	6	7	8	10	10	8	8	10	1	6	78	
PRECIPITATION 0.10	0	1	2	2	1	6	8	8	4	5	1	0	38		
PRECIPITATION 1.00	0	0	0	0	0	0	0	1	4	0	0	0	5		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	0.7	0.0	12.6	T	0.0	T	T	T	0.0	T	2.1	3.0	18.4	
	GREATEST 24-HOUR (IN.)	0.7	0.0	9.9	T	0.0	T	T	T	0.0	T	2.1	1.0	9.9	
	DATE OF OCCURRENCE	27		27	11+		01	29+	17+		29	29	31	MAR 27	
	MAXIMUM SNOW DEPTH (IN.)	1	0	11	T	0	0	0	0	0	0	T	1	11	
	DATE OF OCCURRENCE	27		28	02							29	25+	MAR 28	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	0	0	3	0	0	0	0	0	0	0	1	1	5		

NORMALS, MEANS, AND EXTREMES AMARILLO (KAMA)

LATITUDE: 35° 13'N LONGITUDE: -101° 42'W ELEVATION (FT): GRND: 3592 BARO: 3589 TIME ZONE: CENTRAL (UTC -6) WBAN: 23047

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	48.9	54.1	62.2	70.6	78.6	87.4	91.0	88.7	81.8	71.8	58.4	49.8	70.3
	MEAN DAILY MAXIMUM	62	49.6	53.8	61.5	71.0	79.3	87.7	91.3	89.4	82.2	72.2	59.4	50.9	70.7
	HIGHEST DAILY MAXIMUM	68	81	88	94	98	103	108	106	106	102	99	87	81	108
	YEAR OF OCCURRENCE		1950	1963	1971	1989	1996	1998	2009	1944	2000	2000	1980	1955	JUN 1998
	MEAN OF EXTREME MAXS.	62	71.6	76.2	82.5	88.8	94.3	99.7	100.0	98.5	94.8	89.1	79.0	72.2	87.2
	NORMAL DAILY MINIMUM	30	22.6	27.0	33.6	41.7	51.7	61.1	65.3	63.8	56.3	44.6	31.8	24.1	43.6
	MEAN DAILY MINIMUM	62	22.4	26.3	32.5	41.8	51.9	61.0	65.7	64.3	56.5	45.0	32.3	24.4	43.7
	LOWEST DAILY MINIMUM	68	-11	-14	-3	14	28	41	51	49	30	12	0	-8	-14
	YEAR OF OCCURRENCE		1984	1951	1948	1945	1954	1998	1990	1956	1984	1993	1976	1989	FEB 1951
	MEAN OF EXTREME MINS.	62	4.6	9.0	15.3	26.9	37.8	50.0	57.9	56.7	42.6	30.0	15.9	7.6	29.5
	NORMAL DRY BULB	30	35.8	40.6	47.9	56.2	65.2	74.3	78.2	76.3	69.1	58.2	45.1	37.0	57.0
	MEAN DRY BULB	62	36.0	40.1	47.0	56.4	65.6	74.6	78.5	76.8	69.4	58.6	45.9	37.6	57.2
	MEAN WET BULB	26	28.1	31.1	36.9	43.5	53.6	61.1	64.1	64.2	57.7	47.6	36.0	29.0	46.1
	MEAN DEW POINT	26	22.5	25.2	30.0	36.3	47.9	56.7	59.1	59.8	52.8	42.0	30.1	23.1	40.5
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.1	0.7	4.0	12.8	19.9	16.5	7.0	0.8	0.0	0.0	61.8
	MAXIMUM <= 32	30	4.6	2.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.9	3.6	12.7
MINIMUM <= 32	30	27.5	21.4	14.4	4.3	0.1	0.0	0.0	0.0	0.2	2.3	15.9	27.0	113.1	
MINIMUM <= 0	30	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.7	1.7	
H/C	NORMAL HEATING DEG. DAYS	30	920	699	542	291	94	7	1	1	56	239	594	874	4318
	NORMAL COOLING DEG. DAYS	30	0	0	2	18	90	285	405	345	173	26	0	0	1344
RH	NORMAL (PERCENT)	30	60	59	54	51	58	59	55	60	61	59	59	62	58
	HOURLY 00 LST	30	67	65	61	59	68	67	63	69	69	67	68	68	66
	HOURLY 06 LST	30	72	72	70	71	78	78	76	80	79	75	74	72	75
	HOURLY 12 LST	30	51	49	43	39	45	45	42	47	48	45	47	50	46
	HOURLY 18 LST	30	49	43	37	33	40	40	38	44	44	44	50	52	43
S	PERCENT POSSIBLE SUNSHINE	60	69	69	74	76	72	78	79	77	74	76	72	68	74
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	46	3.3	3.8	3.4	2.2	1.8	0.5	0.5	1.0	1.7	2.6	2.8	3.0	26.6
	THUNDERSTORMS	62	0.2	0.5	1.6	3.4	7.9	9.8	9.0	9.1	4.0	2.5	0.6	0.2	48.8
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)	1	3.2	4.4	4.0	3.7	4.0	2.0	2.0	2.9	4.0	3.6	3.2	2.4	3.3
	MIDNIGHT-MIDNIGHT (OKTAS)	1	3.2	4.4	4.0	3.6	4.0	1.6	2.0	3.2	1.6	3.2	2.8	2.4	3.0
	MEAN NO. DAYS WITH: CLEAR	3	7.7	9.7	11.0	12.0	11.0	17.8	17.0	15.5	9.5	12.0	10.0	13.0	146.2
	PARTLY CLOUDY	3	5.0	3.7	3.3	4.3	5.3	4.7	3.0	2.5	1.0	2.5	3.0	5.0	43.3
	CLOUDY	3	4.7	6.0	3.3	4.7	5.7	1.5	2.0	3.5	1.5	4.0	3.5	3.5	43.9
PR	MEAN STATION PRESSURE(IN)	26	26.36	26.33	26.29	26.26	26.27	26.30	26.36	26.38	26.37	26.36	26.35	26.36	26.33
	MEAN SEA-LEVEL PRES. (IN)	26	30.09	30.04	29.95	29.88	29.85	29.85	29.91	29.94	29.96	29.99	30.03	30.09	29.97
WINDS	MEAN SPEED (MPH)	26	12.1	12.8	13.9	14.5	13.7	13.6	12.4	11.4	12.1	12.4	12.5	12.1	12.8
	PREVAIL.DIR(TENS OF DEGS)	31	24	36	22	19	19	19	19	20	19	21	23	36	19
	MAXIMUM 2-MINUTE: SPEED (MPH)	17	46	51	48	53	58	68	54	46	41	44	45	54	68
	DIR. (TENS OF DEGS)		29	33	36	25	23	02	01	35	20	33	32	25	02
	YEAR OF OCCURRENCE		2008	2007	2008	2001	2008	2008	2009	2006	2003	2006	2006	2009	JUN 2008
	MAXIMUM 3-SECOND SPEED (MPH)	17	59	64	63	74	69	81	70	59	52	61	59	75	81
	DIR. (TENS OF DEGS)		31	32	28	24	23	01	19	21	23	23	32	03	01
YEAR OF OCCURRENCE		2008	2007	2009	2001	2008	2008	2008	2000	2006	1996	2006	2006	JUN 2008	
PRECIPITATION	NORMAL (IN)	30	0.63	0.55	1.13	1.33	2.50	3.28	2.68	2.94	1.88	1.50	0.68	0.61	19.71
	MAXIMUM MONTHLY (IN)	68	2.67	2.08	4.14	6.45	9.81	10.73	7.59	8.07	5.02	7.64	4.06	4.52	10.73
	YEAR OF OCCURRENCE		1999	1998	2000	1997	1951	1965	1960	2009	1950	1941	2004	1959	JUN 1965
	MINIMUM MONTHLY (IN)	68	0.00	T	T	T	0.04	0.01	0.04	0.28	0.03	0.00	0.00	T	0.00
	YEAR OF OCCURRENCE		1986	1991	1950	1964	1984	1953	2001	1983	1977	1952	1989	1976	NOV 1989
	MAXIMUM IN 24 HOURS (IN)	68	3.73	1.28	2.27	2.65	6.75	6.15	4.74	4.26	3.42	3.45	1.53	3.11	6.75
	YEAR OF OCCURRENCE		2007	1971	1973	1999	1951	1960	1982	1945	1941	1948	1980	1943	MAY 1951
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	4.4	4.4	5.4	5.4	8.3	8.3	7.8	8.4	6.4	5.0	4.1	4.2	72.1
PRECIPITATION >= 1.00	30	*	0.1	0.2	0.2	0.6	0.8	0.7	0.7	0.5	0.2	*	*	4.0	
SNOWFALL	NORMAL (IN)	30	4.8	3.8	1.9	0.8	0.*	0.0	0.0	0.0	0.*	0.4	2.4	3.7	17.8
	MAXIMUM MONTHLY (IN)	68	14.5	17.3	14.7	6.5	4.7	T	T	T	0.3	3.9	13.8	21.2	21.2
	YEAR OF OCCURRENCE		1983	1971	1961	1997	1978	2009	2009	2009	1984	1976	2004	2000	DEC 2000
	MAXIMUM IN 24 HOURS (IN)	68	10.2	13.5	11.2	6.5	4.7	T	T	T	0.3	3.2	12.2	16.8	16.8
	YEAR OF OCCURRENCE		1994	1971	2005	1997	2005	2009	2009	2009	1984	1976	1952	2000	DEC 2000
	MAXIMUM SNOW DEPTH (IN)	64	10	14	12	6	T	T	0	0	T	1	9	15	15
	YEAR OF OCCURRENCE		1987	1983	2005	1973	1988	1949			1984	1970	1952	2000	DEC 2000
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	1.7	1.2	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.0	5.7	

PRECIPITATION (inches) 2009 AMARILLO (KAMA)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	0.85	0.55	1.38	0.82	2.88	1.30	0.65	1.80	1.55	0.42	0.84	0.35	13.39
1981	0.11	0.23	1.87	0.90	2.11	1.04	2.73	5.22	3.47	1.79	1.50	0.03	21.00
1982	0.15	0.39	0.52	0.43	1.96	4.75	6.23	0.55	1.37	0.71	0.75	0.79	18.60
1983	1.78	1.19	0.98	0.83	2.85	1.76	0.74	0.28	0.37	3.23	0.33	0.64	14.98
1984	0.56	0.37	0.98	1.18	0.04	6.76	0.83	2.28	0.95	3.19	1.09	1.00	19.23
1985	0.99	0.77	1.49	2.79	0.86	3.08	2.07	1.67	4.96	3.07	0.39	0.26	22.40
1986	0.00	1.02	0.60	0.30	3.28	3.70	3.52	7.04	1.45	1.94	1.82	0.66	25.33
1987	1.26	0.84	0.92	0.57	4.28	3.29	0.83	3.28	3.40	1.17	0.43	1.75	22.02
1988	0.33	0.04	1.19	2.22	6.02	3.68	3.30	3.59	3.15	0.71	0.29	0.17	24.69
1989	0.16	0.55	0.52	0.75	2.51	6.07	2.74	3.22	1.80	0.74	0.00	0.49	19.55
1990	1.22	1.61	2.56	1.10	0.90	0.14	3.28	2.79	2.72	0.46	0.50	0.23	17.51
1991	0.86	T	0.41	0.04	3.08	2.47	2.20	1.28	2.04	0.64	0.66	2.24	15.92
1992	0.50	0.30	1.11	1.60	3.10	7.57	2.36	2.27	0.16	0.31	0.80	0.55	20.63
1993	0.76	0.36	1.29	0.35	1.92	2.76	3.36	4.64	1.00	0.53	0.51	0.95	18.43
1994	1.01	0.07	1.22	1.15	1.41	1.26	5.01	2.86	2.02	0.46	0.58	0.30	17.35
1995	0.32	T	0.80	0.83	4.94	2.71	2.85	2.18	2.62	0.45	0.06	0.59	18.35
1996	0.07	0.26	0.24	T	1.67	2.92	4.95	6.43	1.86	0.84	1.30	0.05	20.59
1997	0.64	0.47	0.01	6.45	2.16	2.93	5.51	1.40	1.35	0.74	1.17	2.12	24.95
1998	0.68	2.08	2.46	0.97	0.53	0.12	1.09	0.76	1.23	6.48	0.34	0.41	17.15
1999	2.67	T	1.35	6.30	4.29	3.61	2.87	2.04	2.54	0.38	0.00	0.52	26.57
2000	0.24	0.04	4.14	0.43	1.14	5.54	0.16	0.29	0.03	3.95	0.96	1.47	18.39
2001	1.67	0.93	3.96	0.49	3.05	1.99	0.04	1.39	3.03	0.05	1.86	0.23	18.69
2002	1.17	0.19	0.45	2.24	1.05	1.54	1.66	3.83	1.64	3.34	0.04	1.10	18.25
2003	T	0.20	0.88	0.28	1.46	6.42	0.09	0.80	1.81	0.95	0.44	0.09	13.42
2004	0.70	1.42	1.50	2.65	0.09	5.38	3.01	0.85	3.80	3.37	4.06	0.48	27.31
2005	1.43	0.67	1.92	0.60	2.65	1.87	1.15	3.93	0.14	0.42	0.19	0.03	15.00
2006	0.03	0.05	1.56	0.23	1.26	1.02	4.40	6.67	1.10	2.71	0.37	2.48	21.88
2007	0.95	0.29	4.00	0.65	5.40	2.71	1.83	0.88	3.55	0.95	0.08	1.21	22.50
2008	0.24	0.59	0.30	0.38	2.08	4.03	4.96	4.43	1.30	3.87	0.19	0.05	22.42
2009	0.03	0.45	1.01	1.84	0.43	2.79	3.78	8.07	0.83	1.41	0.26	0.25	21.15
POR= 62 YRS	0.60	0.57	1.09	1.20	2.60	3.39	2.76	3.01	1.86	1.52	0.65	0.60	19.85

WBAN : 23047

AVERAGE TEMPERATURE (°F) 2009 AMARILLO (KAMA)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	34.9	37.7	43.9	52.4	61.9	78.3	82.9	78.5	70.7	56.6	42.7	41.4	56.8
1981	37.9	42.2	48.8	63.1	65.6	78.5	81.3	74.4	69.0	56.6	49.1	40.1	58.9
1982	37.1	35.9	47.3	53.8	63.3	72.2	78.8	78.7	71.1	57.3	45.6	36.1	56.4
1983	33.4	36.2	45.3	50.9	60.3	70.4	80.0	81.0	73.6	60.5	47.9	24.7	55.4
1984	31.6	40.3	44.0	51.8	66.9	74.6	75.6	75.3	65.7	56.9	47.0	40.5	55.9
1985	31.5	37.2	49.5	60.0	68.1	75.1	80.1	79.6	68.9	56.9	43.5	34.0	57.0
1986	42.5	40.4	52.7	59.4	65.1	73.3	80.6	74.4	68.8	55.7	42.7	37.1	57.7
1987	34.0	42.0	44.6	54.8	64.5	72.1	77.2	75.3	67.6	57.9	45.4	34.6	55.8
1988	32.2	38.3	44.3	54.1	63.6	73.3	75.8	76.4	67.7	59.0	47.6	38.5	55.9
1989	40.7	32.3	51.2	59.9	67.3	69.4	76.2	76.0	66.3	60.4	47.9	31.4	56.6
1990	39.2	40.8	47.0	55.9	63.6	81.3	76.4	76.3	72.0	57.7	49.7	33.2	57.8
1991	32.6	45.9	49.7	58.2	68.5	74.7	76.5	76.2	67.1	58.5	41.2	39.0	57.3
1992	38.0	45.0	50.6	58.7	63.3	70.8	76.6	73.5	70.2	60.1	39.3	34.2	56.7
1993	33.1	36.0	46.1	54.4	64.5	74.0	79.1	74.9	67.9	54.6	40.9	38.7	55.4
1994	36.5	37.6	48.9	55.0	65.2	79.4	77.4	75.9	69.1	58.2	46.5	41.7	57.6
1995	39.2	43.9	47.4	53.9	61.6	70.8	77.2	78.2	67.9	58.2	48.2	38.4	57.1
1996	34.9	43.1	44.2	56.9	72.5	75.6	77.1	74.4	65.9	57.6	45.7	39.7	57.3
1997	35.3	38.8	50.3	48.9	63.2	71.6	77.9	75.0	71.9	58.2	42.8	33.5	55.6
1998	39.8	41.0	43.5	53.5	69.2	77.4	82.4	78.0	75.8	60.4	49.2	38.1	59.0
1999	40.1	47.3	46.3	54.8	62.3	71.8	77.5	78.0	66.2	58.1	52.3	37.6	57.7
2000	39.5	47.1	49.2	57.8	69.7	72.1	80.1	81.8	73.7	59.6	39.6	33.1	58.6
2001	34.8	41.2	45.0	61.0	65.2	76.5	83.9	78.7	70.4	60.2	50.7	40.4	59.0
2002	39.5	39.7	45.6	59.8	66.4	77.7	79.0	78.1	69.2	52.9	44.1	35.6	57.3
2003	39.6	37.6	48.0	58.6	66.9	69.8	80.1	79.3	67.7	61.9	47.5	41.0	58.2
2004	39.3	37.6	52.4	55.2	69.4	73.4	75.9	73.5	70.0	58.8	43.1	39.9	57.4
2005	39.7	43.2	45.6	55.0	64.0	74.8	77.9	75.7	72.6	57.5	48.3	36.5	57.6
2006	42.7	39.3	48.2	60.7	69.3	76.6	78.3	74.6	64.3	57.9	48.8	38.1	58.2
2007	31.5	39.5	53.4	52.9	64.4	72.3	77.1	79.7	72.4	62.0	48.3	37.9	57.6
2008	37.9	41.9	48.2	56.7	66.3	77.2	77.5	74.6	66.9	58.2	48.2	39.3	57.7
2009	38.6	45.7	51.2	56.0	63.9	75.5	78.2	76.0	67.1	53.4	50.4	32.6	57.4
POR= 62 YRS	36.0	40.1	47.0	56.4	65.6	74.6	78.5	76.8	69.4	58.6	45.9	37.6	57.2

HEATING DEGREE DAYS (base 65°F) 2009 AMARILLO (KAMA)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0	0	35	280	662	723	832	630	496	111	65	0	3834
1981-82	0	0	26	271	469	765	849	803	534	340	96	2	4155
1982-83	0	0	23	252	575	888	972	800	603	421	171	32	4737
1983-84	0	0	40	175	506	1241	1028	709	642	390	56	0	4787
1984-85	0	0	125	262	531	752	1034	769	474	169	37	5	4158
1985-86	0	0	111	249	640	957	691	681	379	203	72	0	3983
1986-87	0	2	26	290	665	858	954	634	624	315	70	9	4447
1987-88	0	8	18	226	584	936	1010	765	633	323	102	4	4609
1988-89	0	7	32	197	517	815	747	909	429	219	59	27	3958
1989-90	0	0	91	185	507	1037	795	672	551	276	140	0	4254
1990-91	0	0	11	234	454	981	994	529	467	208	53	1	3932
1991-92	0	0	71	258	709	798	833	576	437	203	98	10	3993
1992-93	0	0	21	171	765	949	984	808	577	317	82	5	4679
1993-94	0	2	39	332	717	810	875	760	499	309	78	0	4421
1994-95	0	0	31	228	553	716	792	583	547	333	146	13	3942
1995-96	0	1	89	217	497	813	926	634	636	250	21	0	4084
1996-97	3	0	70	251	571	775	917	728	447	476	99	2	4339
1997-98	0	4	35	259	661	967	774	667	664	343	39	21	4434
1998-99	0	0	13	180	469	828	764	490	573	305	132	9	3763
1999-00	0	0	93	226	373	844	785	510	482	220	60	9	3602
2000-01	0	0	50	195	755	981	929	660	611	139	75	0	4395
2001-02	0	0	12	180	418	755	782	702	597	205	79	1	3731
2002-03	0	0	21	377	623	906	784	761	519	205	51	13	4260
2003-04	0	6	32	148	524	737	789	787	395	295	54	0	3767
2004-05	4	0	18	190	654	773	778	602	595	298	128	0	4040
2005-06	0	2	8	263	495	876	682	711	514	178	60	0	3789
2006-07	0	0	62	254	481	829	1030	711	356	356	66	5	4150
2007-08	0	0	2	163	496	836	835	665	517	268	82	0	3864
2008-09	0	0	21	219	497	791	812	536	420	286	113	0	3695
2009-	0	0	52	370	432	996							

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COOLING DEGREE DAYS (base 65°F) 2009 AMARILLO (KAMA)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	0	0	0	4	58	408	562	429	211	26	0	0	1698
1981	0	0	1	59	87	410	512	299	154	16	0	0	1538
1982	0	0	0	9	52	225	437	432	213	22	0	0	1390
1983	0	0	0	2	31	201	473	502	306	41	3	0	1559
1984	0	0	0	1	121	298	331	325	151	17	0	0	1244
1985	0	0	2	27	143	315	473	458	235	6	0	0	1659
1986	0	0	3	45	87	256	489	299	144	10	0	0	1333
1987	0	0	0	19	64	227	386	334	105	11	0	0	1146
1988	0	0	0	3	67	263	340	366	120	19	0	0	1178
1989	0	0	10	75	136	164	354	347	138	51	0	0	1275
1990	0	0	0	9	101	494	359	358	229	17	1	0	1568
1991	0	0	0	12	166	298	364	358	144	66	0	0	1408
1992	0	0	0	19	52	188	366	271	186	25	0	0	1107
1993	0	0	0	6	77	283	443	315	134	15	0	0	1273
1994	0	0	6	18	91	439	392	345	159	24	4	0	1478
1995	0	0	9	7	47	194	388	419	182	13	0	0	1259
1996	0	5	0	14	260	325	386	297	103	27	0	0	1417
1997	0	0	0	0	49	205	407	320	247	55	0	0	1283
1998	0	0	1	6	177	399	547	407	342	43	0	0	1922
1999	0	0	0	5	56	221	396	410	135	16	0	0	1239
2000	0	0	0	14	214	225	475	529	320	39	0	0	1816
2001	0	0	0	27	88	353	594	433	180	38	0	0	1713
2002	0	0	2	56	129	390	442	412	156	10	0	0	1597
2003	0	0	0	21	115	165	473	456	120	60	6	0	1416
2004	0	0	12	6	194	257	345	273	175	6	0	0	1268
2005	0	0	0	4	104	297	404	342	244	34	3	0	1432
2006	0	0	2	54	200	356	418	306	49	41	0	0	1426
2007	0	0	7	1	57	233	380	464	231	77	0	0	1450
2008	0	0	0	25	130	372	391	305	88	19	1	0	1331
2009	0	0	0	23	84	323	416	347	123	20	2	0	1338

SNOWFALL (inches) 2009 AMARILLO (KAMA)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0.0	0.0	0.0	0.0	8.6	T	1.1	0.1	0.1	0.0	0.0	0.0	9.9
1981-82	0.0	0.0	0.0	0.0	T	0.3	1.1	4.7	1.7	T	0.0	0.0	7.8
1982-83	0.0	0.0	0.0	0.0	4.5	1.9	14.5	13.0	8.1	5.9	0.0	0.0	47.9
1983-84	0.0	0.0	0.0	0.0	T	5.2	7.0	3.5	2.5	0.0	0.0	0.0	18.2
1984-85	0.0	0.0	0.3	0.0	0.1	0.3	7.4	0.3	0.2	0.0	0.0	0.0	8.6
1985-86	0.0	0.0	T	0.0	T	2.8	0.0	10.9	1.0	0.0	0.0	0.0	14.7
1986-87	0.0	0.0	0.0	T	0.2	3.3	12.1	3.1	6.4	0.1	0.0	0.0	25.2
1987-88	0.0	0.0	0.0	0.0	0.7	15.3	4.3	0.5	8.5	4.2	0.0	0.0	33.5
1988-89	0.0	0.0	0.0	0.0	2.4	2.2	T	0.1	4.2	0.1	T	T	9.0
1989-90	0.0	0.0	T	0.0	0.0	5.4	8.5	3.0	0.0	0.0	0.0	0.0	16.9
1990-91	0.0	0.0	0.0	0.0	2.2	3.8	5.0	T	1.0	0.0	T	T	12.0
1991-92	0.0	0.0	T	3.2	T	2.0	1.0	0.2	T	0.3	T	T	6.7
1992-93	0.0	0.0	0.0	T	9.0	10.0	2.5	2.2	2.1	T	T	0.0	25.8
1993-94	0.0	0.0	0.0	T	T	0.5	10.2	T	3.0	T	0.0	0.0	13.7
1994-95	T	0.0	0.0	0.0	T	0.0	3.7	T	2.3	0.0	0.0	0.0	6.0
1995-96	T	0.0	T	0.0	0.5	2.7	1.1	4.6	0.1	0.0	T	0.0	9.0
1996-97	T	0.0	0.0	1.5	8.0	1.1	10.8	2.0	0.0	6.5	0.0	T	29.9
1997-98	T	0.0	0.0	T	5.4	10.9	T	10.4	4.4	T	0.0	0.0	31.1
1998-99	0.0	0.0	0.0	0.0	0.0	1.0	13.1	T	1.3	T	0.0	T	15.4
1999-00	T	T	0.0	T	0.0	8.6	2.8	T	0.5	0.5	T	0.0	12.4
2000-01	0.0	0.0	0.0	T	8.9	21.2	13.0	1.4	1.8	T	T	0.0	46.3
2001-02	0.0	0.0	T	0.0	2.3	2.0	3.3	1.1	0.3	T	T	T	9.0
2002-03	0.0	0.0	0.0	T	0.0	10.6	T	1.1	0.3	0.0	0.0	0.0	12.0
2003-04	0.0	0.0	0.0	0.0	T	0.5	4.7	6.0	T	0.7	0.0	T	11.9
2004-05	0.0	0.0	0.0	0.0	13.8	5.3	2.3	0.3	13.8	0.0	4.7	0.0	40.2
2005-06	0.0	T	0.0	0.0	1.3	T	0.3	T	0.9	0.0	0.0	0.0	2.5
2006-07	0.0	0.0	0.0	0.0	7.2	1.7	9.1	5.7	T	1.1	T	T	24.8
2007-08	0.0	0.0	T	T	0.8	4.7	2.7	0.3	3.5	T	T	T	12.0
2008-09	T	0.0	0.0	0.0	0.0	0.6	0.7	0.0	12.6	T	0.0	T	13.9
2009-	T	T	0.0	T	2.1	3.0							
POR= 62 YRS	T	T	T	0.2	2.2	3.1	4.0	3.3	2.6	0.5	0.1	T	16.0

WBAN : 23047

REFERENCE NOTES :

<p>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).</p> <p>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).</p> <p>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. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). 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 AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD. CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p>	<p>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 HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</p> <p>NOTE: The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2009 AMARILLO TEXAS (KAMA)

The station is located 7 statute miles east northeast of the downtown post office in a region of rather flat topography. The Canadian River flows eastward 18 miles north of the station, with its bed about 800 feet below the plains. The Prairie Dog Town Fork of the Red River flows southeastward about 15 miles south of the station where it enters the Palo Duro Canyon, which is about 1,000 feet deep. There are numerous shallow Playa lakes, often dry, over the area, and the nearly treeless grasslands slope downward to the east. The terrain gradually rises to the west and northwest.

Three-fourths of the total annual precipitation falls from April through September, occurring from thunderstorm activity. Snow usually melts within a few days after it falls. Heavier snowfalls of 10 inches or more, usually with near blizzard conditions, average once every 5 years and last 2 to 3 days.

The Amarillo area is subject to rapid and large temperature changes, especially during the winter months when cold fronts from the northern Rocky Mountain and Plains states sweep across the area. Temperature drops of 50 to 60 degrees within a 12-hour period are not uncommon. Temperature drops of 40 degrees have occurred within a few minutes.

Humidity averages are low, occasionally dropping below 20 percent in the spring. Low humidity moderates the effect of high summer afternoon temperatures, permits evaporative cooling systems to be very effective, and provides many pleasant evenings and nights.

Severe local storms are infrequent, although a few thunderstorms with damaging hail, lightning, and wind in a very localized area occur most years, usually in spring and summer. These storms are often accompanied by very heavy rain, which produces local flooding, particularly of roads and streets. Tornadoes are rare.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 29 and the average last occurrence in the spring is April 14.

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