

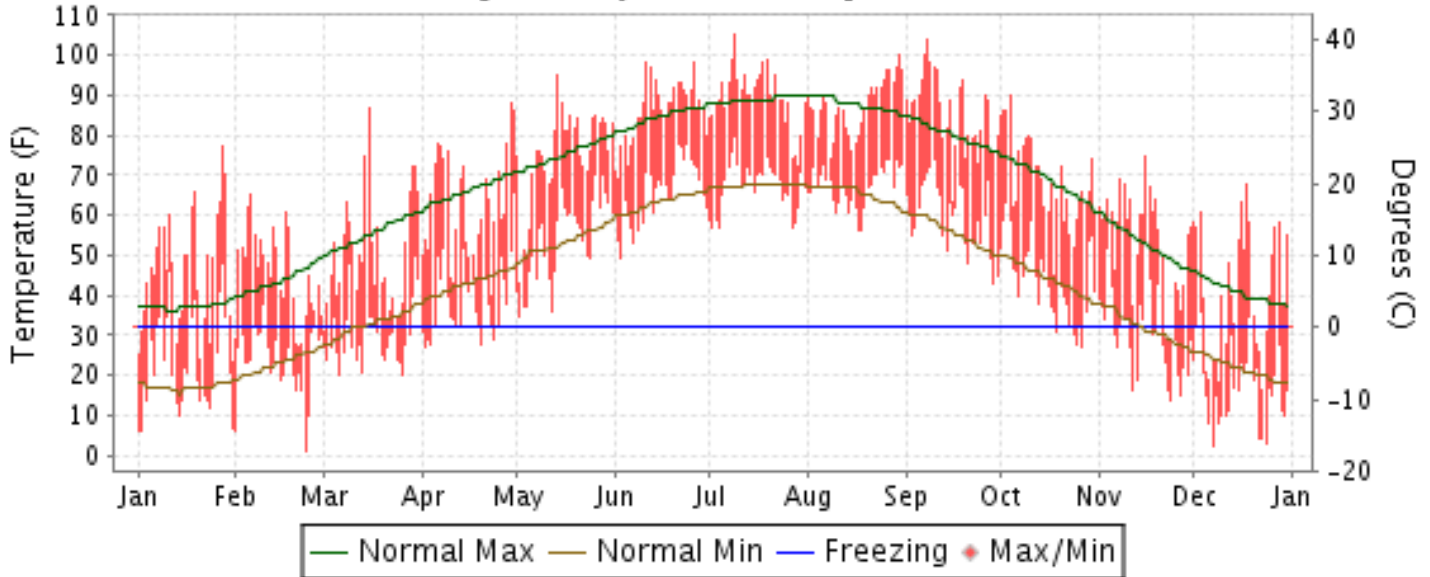


2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

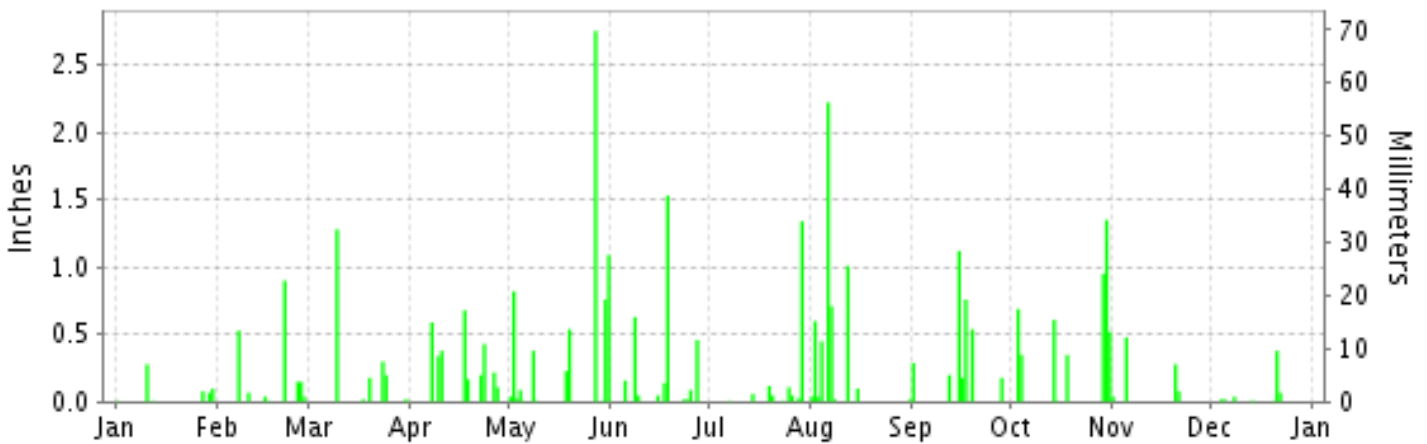
ISSN 0198-2192

TOPEKA, KANSAS (KTOP)

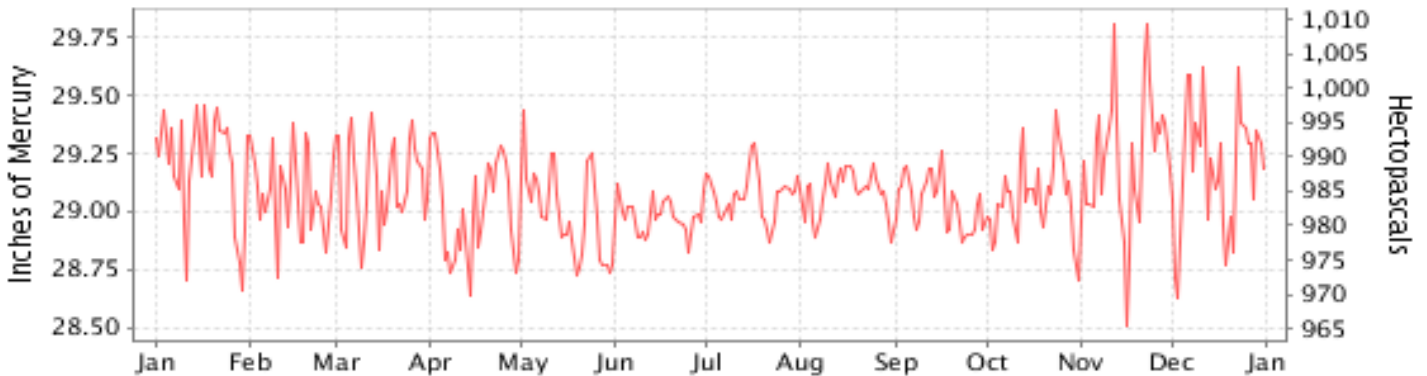
Daily Max/Min Temperature



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 2013

TOPEKA (KTOP)

LATITUDE: 39° 4'N LONGITUDE: 95° 37'W ELEVATION (FT): GRND: 876 BARO: 883 TIME ZONE: CENTRAL (UTC -6) WBAN: 13996

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	46.0	45.2	50.4	62.2	75.1	86.1	89.5	87.4	85.7	68.7	53.7	41.1	65.9	
	HIGHEST DAILY MAXIMUM	77	65	87	88	95	98	105	100	104	90	75	68	105	
	DATE OF OCCURRENCE	28	06	15	29	14	26+	09	30	08	04	16	18	JUL 09	
	MEAN DAILY MINIMUM	22.9	23.6	30.0	39.0	54.0	65.6	67.4	67.3	59.9	43.6	30.4	17.0	43.4	
	LOWEST DAILY MINIMUM	6	1	20	27	35	49	57	56	43	27	14	2	1	
	DATE OF OCCURRENCE	02+	23	26+	02	02	03	27+	18	29	27	24	07	FEB 23	
	AVERAGE DRY BULB	34.5	34.4	40.2	50.6	64.6	75.8	78.4	77.3	72.8	56.1	42.1	29.0	54.7	
	MEAN WET BULB	29.3	30.4	35.0	45.0	58.0	67.2	68.5	69.8	63.8	50.0	36.8	25.5	48.3	
	MEAN DEW POINT	21.5	22.8	27.7	37.6	52.9	62.5	63.2	66.1	58.2	43.8	28.6	18.3	41.9	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	1	11	16	14	10	1	0	0	53	
	MAXIMUM <= 32°	6	4	1	0	0	0	0	0	0	0	3	10	24	
	MINIMUM <= 32°	23	26	22	9	0	0	0	0	0	5	18	29	132	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	940	849	764	442	133	5	0	0	14	303	679	1108	5237	
	COOLING DEGREE DAYS	0	0	0	16	127	337	424	388	255	37	0	0	1584	
RH	MEAN (PERCENT)	64	64	65	63	68	66	62	71	64	66	61	67	65	
	HOUR 00 LST	68	69	71	70	77	77	73	81	74	74	68	73	73	
	HOUR 06 LST	75	76	75	78	83	80	80	86	83	81	73	76	79	
	HOUR 12 LST	55	56	56	52	59	54	49	60	48	52	50	57	54	
	HOUR 18 LST	56	55	55	52	55	51	49	57	50	57	55	59	54	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	1	4	3	1	1	0	0	3	0	2	0	5	20	
	THUNDERSTORMS	0	1	0	6	7	8	1	5	4	5	1	0	38	
PR	MEAN STATION PRESS. (IN.)	29.20	29.08	29.13	29.02	29.00	28.97	29.07	29.08	29.03	29.06	29.24	29.19	29.09	
	MEAN SEA-LEVEL PRESS. (IN.)	30.16	30.05	30.09	29.97	29.94	29.90	29.99	30.01	29.96	30.01	30.20	30.17	30.04	
WINDS	RESULTANT SPEED (MPH)	1.6	2.2	2.9	1.0	0.9	2.1	2.5	2.8	2.9	2.0	1.9	2.3	0.8	
	RES. DIR. (TENS OF DEGS.)	25	30	36	20	17	17	13	14	15	21	21	30	20	
	MEAN SPEED (MPH)	7.6	9.5	9.4	9.7	9.2	8.6	6.3	5.4	6.8	7.3	8.6	7.2	8.0	
	PREVAIL.DIR.(TENS OF DEGS.)	19	27	31	29	17	17	17	18	17	17	16	31	17	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	32	31	30	32	38	37	28	24	26	28	31	28	38	
	DIR. (TENS OF DEGS.)	32	33	32	18	21	18	33	31	20	16	27	21	21	
	DATE OF OCCURRENCE	30	18	05	14	19	18	10	12	19	14	17	31	MAY 19	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	39	43	39	47	61	47	37	36	37	41	48	39	61	
DIR. (TENS OF DEGS.)	32	24	31	18	20	30	23	26	36	29	18	18	20		
DATE OF OCCURRENCE	30	10	05	14	19	18	09	12	01	03	16	31	MAY 19		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.55	1.89	2.01	3.12	6.76	3.15	1.78	5.21	3.27	4.83	0.88	0.56	34.01	
	GREATEST 24-HOUR (IN.)	0.28	0.90	1.28	0.84	2.75	1.53	1.36	2.22	1.30	1.87	0.48	0.45	2.75	
	DATE OF OCCURRENCE	10	21	09	17-18	27	18	28-29	06	15-16	30-31	05	21-22	MAY 27	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	6	8	7	9	13	10	9	10	7	8	4	8	99		
PRECIPITATION 0.10	2	4	4	9	7	5	3	6	7	7	2	1	57		
PRECIPITATION 1.00	0	0	1	0	2	1	1	2	1	1	0	0	9		
SNOWFALL	SNOW,ICE PELLETS,HAIL	1.5	14.5	7.9	0.3	T	T	0.0	0.0	0.0	T	T	4.3	28.5	
	TOTAL (IN.)	1.5	9.8	4.1	0.3	T	T	0.0	0.0	0.0	T	T	2.2	9.8	
	GREATEST 24-HOUR (IN.)	30	21	24	23	31+	18	0	0	0	18	21+	21	FEB 21	
	DATE OF OCCURRENCE	2	7	6	0	0	0	0	0	0	0	0	3	7	
	MAXIMUM SNOW DEPTH (IN.)	01	22	24									22	FEB 22	
	DATE OF OCCURRENCE														
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	1	3	3	0	0	0	0	0	0	0	0	1	8		

NORMALS, MEANS, AND EXTREMES TOPEKA (KTOP)

LATITUDE: 39° 4'N **LONGITUDE:** 95° 37'W **ELEVATION (FT):** GRND: 876 BARO: 883 **TIME ZONE:** CENTRAL (UTC -6) **WBAN: 13996**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	39.9	45.0	56.4	66.7	75.9	84.7	89.5	88.6	80.4	68.4	54.6	41.7	66.0
	MEAN DAILY MAXIMUM	66	38.2	44.0	54.8	66.7	76.1	84.8	89.7	88.6	80.6	69.4	54.4	42.0	65.8
	HIGHEST DAILY MAXIMUM	66	77	84	89	97	97	107	110	112	109	96	85	74	112
	YEAR OF OCCURRENCE		2013	1972	1986	2012	1998	1953	1980	2011	2000	2006	2006	2012	AUG 2011
	MEAN OF EXTREME MAXS.	66	62.2	67.7	78.7	86.6	90.3	95.7	99.9	100.0	94.7	87.2	74.7	64.4	83.5
	NORMAL DAILY MINIMUM	30	19.6	23.8	33.3	43.5	54.2	63.7	68.4	66.2	56.3	44.7	33.0	22.3	44.1
	MEAN DAILY MINIMUM	66	17.7	22.9	31.9	43.1	53.8	63.4	68.0	65.8	56.1	44.3	32.2	22.1	43.4
	LOWEST DAILY MINIMUM	66	-20	-23	-7	10	26	43	43	41	29	19	2	-26	-26
	YEAR OF OCCURRENCE		1974	1979	1978	1975	1963	1993	1972	1988	1984	1993	1976	1989	DEC 1989
	MEAN OF EXTREME MINS.	66	-2.5	2.4	13.3	26.6	37.5	49.9	55.9	53.1	38.7	27.3	15.6	2.8	26.7
	NORMAL DRY BULB	30	29.7	34.4	44.8	55.1	65.0	74.2	79.0	77.4	68.3	56.6	43.8	32.0	55.0
	MEAN DRY BULB	66	28.1	33.4	43.4	54.9	65.0	74.2	78.9	77.2	68.4	56.9	43.3	32.1	54.7
	MEAN WET BULB	30	24.8	28.7	37.8	46.9	57.3	66.2	69.9	68.4	60.0	48.6	37.2	27.7	47.8
	MEAN DEW POINT	30	22.3	25.8	34.3	43.9	55.2	64.5	68.4	66.8	58.0	46.3	34.9	25.4	45.5
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.4	1.4	6.6	14.9	13.7	4.4	0.2	0.0	0.0	41.6
	MAXIMUM <= 32	30	8.1	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	6.4	21.4
MINIMUM <= 32	30	28.1	21.5	14.5	3.5	0.1	0.0	0.0	0.0	0.1	2.8	14.2	26.1	110.9	
MINIMUM <= 0	30	1.4	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	4.0	
H/C	NORMAL HEATING DEG. DAYS	30	1093	857	628	322	96	8	0	2	65	289	638	1023	5021
	NORMAL COOLING DEG. DAYS	30	0	0	3	25	98	284	432	386	165	27	2	0	1422
RH	NORMAL (PERCENT)	30	71	70	66	65	70	71	70	72	71	68	71	73	70
	HOURLY 00 LST	30	77	76	73	73	80	81	80	81	81	77	78	79	78
	HOURLY 06 LST	30	79	79	79	81	86	87	87	88	88	83	81	81	83
	HOURLY 12 LST	30	64	62	57	55	59	58	59	58	56	54	61	66	59
	HOURLY 18 LST	30	66	61	54	52	57	57	56	58	58	57	65	69	59
S	PERCENT POSSIBLE SUNSHINE	51	57	55	57	58	61	67	71	71	66	64	56	51	61
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	50	2.0	1.8	1.1	1.0	1.2	0.8	0.8	1.5	1.9	2.0	1.4	2.2	17.7
	THUNDERSTORMS	66	0.3	0.7	2.4	5.2	8.6	9.5	8.2	7.6	5.8	3.4	1.2	0.4	53.3
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	1	7.2	5.6	4.0	6.4	4.8	4.0	5.2	3.2	2.8	4.4	4.4	3.6	4.6
	MIDNIGHT-MIDNIGHT (OKTAS)	1	7.2	5.6	4.0	6.4	4.8	4.0	5.2	3.2	2.8	4.8	4.4	2.4	4.6
	MEAN NO. DAYS WITH: CLEAR	3	4.3	8.7	7.0	8.0	11.0	11.0	6.5	12.0	7.0	10.0	6.5	10.5	102.5
	PARTLY CLOUDY	3	4.0	3.3	5.0	4.0	4.3	6.0	9.0	7.0	1.0	2.0	2.5	3.0	51.1
	CLOUDY	3	9.7	7.3	6.0	9.5	6.3	5.3	5.5	4.5	4.5	7.5	8.5	8.0	82.6
PR	MEAN STATION PRESSURE(IN)	30	29.17	29.15	29.07	28.99	28.99	28.99	29.03	29.05	29.08	29.09	29.12	29.16	29.07
	MEAN SEA-LEVEL PRES. (IN)	30	30.15	30.12	30.03	29.93	29.92	29.91	29.95	29.97	30.01	30.04	30.08	30.13	30.02
WINDS	MEAN SPEED (MPH)	30	8.3	8.5	9.8	10.0	8.5	7.9	6.9	6.3	7.0	7.7	8.5	7.9	8.1
	PREVAIL.DIR.(TENS OF DEGS)	41	31	36	36	19	19	19	19	19	19	19	19	31	19
	MAXIMUM 2-MINUTE: SPEED (MPH)	20	39	37	44	44	47	54	44	59	43	37	45	39	59
	DIR. (TENS OF DEGS)		31	18	17	09	34	36	34	02	32	14	31	31	02
	YEAR OF OCCURRENCE		1996	2009	2009	2012	1999	2004	1996	2011	2000	2001	1997	2012	AUG 2011
	MAXIMUM 3-SECOND SPEED (MPH)	20	49	51	58	61	61	74	62	70	52	52	54	49	74
	DIR. (TENS OF DEGS)		31	18	16	23	20	36	33	36	32	23	30	32	36
YEAR OF OCCURRENCE		1996	2009	2009	2008	2013	2004	1994	2011	2000	1996	1997	2012	JUN 2004	
PRECIPITATION	NORMAL (IN)	30	0.86	1.32	2.49	3.53	4.91	5.40	3.82	4.24	3.66	3.03	1.85	1.35	36.46
	MAXIMUM MONTHLY (IN)	66	5.24	3.49	8.44	8.69	10.25	15.20	12.02	11.18	12.71	7.24	6.27	4.30	15.20
	YEAR OF OCCURRENCE		1949	1971	1973	1999	2007	1967	1950	1977	1973	1980	1964	1973	JUN 1967
	MINIMUM MONTHLY (IN)	66	T	0.02	0.10	0.62	0.41	0.56	0.59	0.26	0.58	0.04	T	0.04	0.02
	YEAR OF OCCURRENCE		1986	2006	1966	1989	1966	1980	1983	1971	2012	1952	1989	1996	FEB 2006
	MAXIMUM IN 24 HOURS (IN)	66	1.55	2.33	3.76	3.59	7.47	5.52	4.19	4.48	5.61	4.10	4.66	2.65	7.47
	YEAR OF OCCURRENCE		1988	1971	1987	1967	2007	1967	1951	1962	2005	1985	1964	1980	MAY 2007
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	5.5	6.3	9.0	9.7	11.6	11.5	8.7	8.6	7.8	8.1	6.8	6.0	99.6
PRECIPITATION >= 1.00	30	0.1	0.1	0.5	0.8	1.4	1.8	1.3	1.4	1.1	1.0	0.4	0.2	10.1	
SNOWFALL	NORMAL (IN)	30	4.9	4.5	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.3	1.0	5.2	17.8
	MAXIMUM MONTHLY (IN)	66	23.0	22.4	22.1	6.8	T	T	T	T	T	8.0	9.4	19.2	23.0
	YEAR OF OCCURRENCE		1993	1971	1960	1970	2013	2013	2008	1994	2008	1996	1972	2009	JAN 1993
	MAXIMUM IN 24 HOURS (IN)	66	15.2	15.2	8.4	7.6	T	T	T	T	T	8.0	7.4	9.0	15.2
	YEAR OF OCCURRENCE		1993	1971	1960	1970	2013	2013	1992	1994	2002	1996	1975	1973	JAN 1993
	MAXIMUM SNOW DEPTH (IN)	68	12	12	18	4	0	T	0	T	0	6	8	9	18
	YEAR OF OCCURRENCE		1979	1971	1960	1970	1993	1993	1949	1996	1996	1975	1983	MAR 1960	
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	1.5	1.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.6	5.2	

PRECIPITATION (inches) 2013 TOPEKA (KTOP)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	0.11	1.35	4.57	4.26	3.45	10.17	1.66	1.04	4.24	4.10	0.72	2.36	38.03
1985	0.70	2.02	2.38	3.60	3.79	5.15	2.90	7.97	8.16	5.20	2.02	0.71	44.60
1986	T	1.55	1.35	3.15	7.53	2.51	4.21	5.50	6.21	3.30	0.87	1.20	37.38
1987	1.09	2.71	5.92	2.33	3.89	4.86	2.78	5.90	1.81	1.86	1.94	1.87	36.96
1988	2.04	0.48	0.73	2.93	3.08	3.13	1.74	1.34	1.94	0.26	0.86	0.86	19.39
1989	1.24	0.86	3.11	0.62	4.05	4.76	5.21	6.22	8.65	3.44	T	0.61	38.77
1990	1.22	2.31	3.75	1.01	4.45	5.57	3.01	5.69	0.83	2.71	2.91	0.97	34.43
1991	0.76	0.02	2.98	3.63	7.09	1.49	1.47	1.76	2.15	3.20	2.20	2.44	29.19
1992	0.89	1.18	5.29	3.25	1.75	3.35	6.37	1.24	3.92	1.41	5.27	2.01	35.93
1993	1.11	1.61	2.56	5.43	6.95	2.18	10.98	5.32	7.03	1.37	1.12	0.90	46.56
1994	0.42	0.82	0.19	4.31	0.95	4.63	3.16	7.87	1.46	1.30	2.87	1.52	29.50
1995	1.50	0.71	2.11	3.32	11.82	3.43	5.10	4.29	2.90	0.21	0.66	0.57	36.62
1996	0.76	0.19	1.48	1.57	7.72	7.97	2.65	6.09	3.60	2.79	2.66	0.04	37.52
1997	0.24	2.67	0.26	4.99	3.54	1.36	2.59	4.65	2.15	3.58	2.14	2.41	30.58
1998	0.79	0.77	2.88	2.16	2.08	7.22	9.32	0.88	4.19	5.01	5.64	1.22	42.16
1999	1.17	0.94	0.99	8.69	6.38	6.20	0.59	1.09	4.43	0.87	1.60	1.76	34.71
2000	0.19	2.00	2.62	1.07	2.08	7.25	2.77	0.61	2.97	3.52	1.91	0.35	27.34
2001	1.22	2.90	3.56	4.27	3.85	6.39	2.31	5.95	7.46	3.51	1.13	0.13	42.68
2002	1.51	0.75	0.72	4.64	4.87	4.12	0.81	3.05	1.63	5.42	0.26	0.05	27.83
2003	0.50	1.37	0.86	5.91	3.70	3.70	0.70	6.25	2.91	0.69	0.45	2.36	29.40
2004	0.84	1.68	3.83	1.96	4.46	6.39	7.27	4.91	1.68	3.98	2.44	0.62	40.06
2005	2.50	2.26	0.74	1.34	4.58	9.59	2.08	10.91	7.71	5.00	0.91	1.00	48.62
2006	0.48	0.02	2.15	5.13	3.20	1.18	3.41	9.04	2.47	3.04	0.90	1.70	32.72
2007	0.67	1.48	3.65	3.20	10.25	4.39	1.99	2.79	1.35	6.61	0.10	4.13	40.61
2008	0.65	3.32	2.58	2.95	3.55	7.50	3.67	1.48	6.17	3.98	0.88	1.48	38.21
2009	0.12	0.45	4.79	7.09	1.44	6.54	7.80	4.53	1.68	3.13	2.23	1.94	41.74
2010	0.45	1.60	1.51	3.12	6.58	9.54	4.60	1.68	4.66	1.34	1.22	0.19	36.49
2011	1.26	1.85	1.81	3.87	5.58	2.29	1.56	4.43	1.74	0.43	4.66	3.41	32.89
2012	0.02	2.72	3.46	2.47	2.58	2.39	1.64	3.72	0.58	1.42	1.27	0.79	23.06
2013	0.55	1.89	2.01	3.12	6.76	3.15	1.78	5.21	3.27	4.83	0.88	0.56	34.01
POR= 66 YRS	0.92	1.22	2.35	3.28	4.51	5.17	3.98	4.04	3.40	2.87	1.78	1.33	34.85

WBAN : 13996

AVERAGE TEMPERATURE (°F) 2013 TOPEKA (KTOP)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	26.0	40.2	38.1	51.7	62.4	73.9	77.0	78.0	66.5	56.6	45.5	36.8	54.4
1985	19.9	25.6	48.6	58.7	66.5	72.0	79.7	72.8	66.8	56.6	36.7	25.1	52.4
1986	35.8	32.5	49.8	57.7	65.9	77.0	80.4	72.3	71.6	56.6	38.3	34.6	56.0
1987	29.7	40.3	46.7	57.1	70.4	76.2	78.1	75.5	68.2	52.6	47.4	35.9	56.5
1988	28.1	30.8	43.4	53.9	68.8	75.1	76.7	79.5	70.3	52.8	45.2	35.3	55.0
1989	38.0	22.9	44.4	57.9	64.2	71.4	77.6	74.8	62.3	57.1	42.3	21.0	52.8
1990	37.3	36.2	45.5	51.9	60.3	77.2	77.7	76.5	71.6	57.0	49.1	29.6	55.8
1991	25.2		48.2	57.7	69.4	77.1	80.2	77.3	69.3	58.6	37.9	37.4	
1992	37.2	41.5	47.8	54.7	62.5	69.1	75.9	71.7	67.9	56.5	39.1	32.6	54.7
1993	26.4	29.9	40.8	50.2	63.1	72.9	78.2	77.8	63.4	54.0	39.3	34.8	52.6
1994	26.1	29.9	47.0	54.1	64.5	76.4	76.1	75.9	67.4	58.3	45.8	36.0	54.8
1995	29.3	37.0	45.1	52.0	59.3	72.5	80.2	80.9	65.8	57.2	40.1	30.6	54.2
1996	24.5	35.0	38.5	54.0	65.7	75.3	76.4	74.6	64.6	56.2	37.6	30.1	52.7
1997	26.2	35.0	46.2	49.9	60.5	73.5	78.5	75.5	69.7	58.1	40.3	32.8	53.9
1998	32.4	39.8	38.3	53.0	70.3	74.0	79.2	78.9	74.0	59.1	48.7	36.0	57.0
1999	28.6	42.9	43.3	55.1	64.8	73.4	82.4	77.6	65.6	56.9	51.3	36.2	56.5
2000	32.3	41.9	47.5	55.2	68.1	72.1	79.2	85.4	72.3	60.5	37.3	20.7	56.0
2001	30.3	30.5	40.8	60.6	67.6	73.4	82.9	79.0	66.5	56.7	51.1	37.8	56.4
2002	34.6	37.5	40.7	57.3	62.6	76.3	81.6	79.0	72.9	50.6	42.1	36.1	55.9
2003	28.8	31.3	44.0	57.9	64.2	72.1	82.2	81.0	64.9	57.9	43.7	36.2	55.4
2004	27.7	30.4	48.1	56.4	67.7	71.4	75.6	72.8	70.2	58.3	45.8	35.3	55.0
2005	29.2	38.3	44.7	57.0	65.0	76.2	78.6	77.8	71.9	57.3	46.4	29.3	56.0
2006	41.0	34.4	46.1	60.6	66.1	75.7	81.8	80.0	65.9	55.0	46.1	39.2	57.7
2007	29.4	29.9	53.8	52.6	68.7	74.2	79.0	83.5	71.4	60.0	44.4	30.7	56.5
2008	28.7	30.0	42.2	51.9	64.6	75.2	78.9	76.2	67.2	56.5	44.1	30.1	53.8
2009	29.5	38.6	45.9	54.3	65.7	76.3	74.7	74.4	65.8	50.6	48.8	28.1	54.4
2010	24.6	28.6	45.9	60.2	64.7	78.7	81.7	81.9	70.3	59.7	45.1	31.7	56.1
2011	24.2	30.9	45.0	57.1	64.6	78.5	86.2	81.1	66.0	58.5	45.1	36.7	56.2
2012	36.4	39.9	59.4	60.5	71.4	79.0	86.3	76.7	67.9	55.7	47.8	36.3	59.8
2013	34.5	34.4	40.2	50.6	64.6	75.8	78.4	77.3	72.8	56.1	42.1	29.0	54.7
POR= 66 YRS	28.1	33.5	43.4	54.9	65.0	74.2	78.9	77.2	68.4	56.9	43.3	32.1	54.6

HEATING DEGREE DAYS (base 65°F) 2013 TOPEKA (KTOP)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0	0	145	276	578	871	1389	1098	501	228	35	8	5129
1985-86	0	0	127	259	844	1228	899	906	491	252	49	0	5055
1986-87	0	9	27	263	792	934	1084	688	560	292	16	0	4665
1987-88	0	3	24	376	531	893	1136	988	662	331	16	5	4965
1988-89	2	4	24	383	587	912	832	1174	641	296	125	5	4985
1989-90	0	2	155	276	672	1360	851	801	600	413	176	4	5310
1990-91	1	1	39	276	477	1093	1227		523	233	48	0	
1991-92	0	0	95	262	808	849	855	673	528	326	132	7	4535
1992-93	0	2	68	278	770	995	1189	979	744	440	101	22	5588
1993-94	0	1	108	356	763	930	1202	974	553	347	94	0	5328
1994-95	0	1	64	237	568	892	1097	774	613	382	193	1	4822
1995-96	0	0	107	246	740	1059	1250	867	814	347	93	6	5529
1996-97	0	0	98	294	813	1076	1193	833	577	450	173	0	5507
1997-98	1	0	21	286	737	994	1000	699	830	361	27	27	4983
1998-99	0	0	9	203	485	893	1122	613	667	295	58	12	4357
1999-00	0	0	92	261	408	886	1006	666	536	295	51	10	4211
2000-01	0	0	61	174	824	1368	1069	958	742	182	53	9	5440
2001-02	0	0	58	262	415	837	934	766	745	274	141	0	4432
2002-03	0	0	15	455	677	888	1115	937	643	256	78	21	5085
2003-04	0	0	90	229	629	885	1149	993	526	283	87	2	4873
2004-05	0	9	12	222	571	911	1105	740	626	269	107	0	4572
2005-06	0	0	31	285	550	1103	736	852	578	175	105	0	4415
2006-07	0	0	50	358	561	794	1097	977	364	388	22	0	4611
2007-08	0	0	28	213	618	1057	1118	1011	700	395	99	0	5239
2008-09	0	0	45	286	626	1077	1093	732	590	338	83	2	4872
2009-10	0	9	52	442	480	1136	1248	1015	594	177	127	0	5280
2010-11	0	0	24	177	590	1026	1257	948	627	256	139	0	5044
2011-12	0	0	81	242	591	871	877	720	217	171	16	9	3795
2012-13	0	0	53	320	514	881	940	849	764	442	133	5	4901
2013-	0	0	14	303	679	1108							

WBAN : 13996

COOLING DEGREE DAYS (base 65°F) 2013 TOPEKA (KTOP)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1984	0	0	0	14	67	274	379	407	196	20	0	3	1360
1985	0	0	0	46	88	225	461	249	188	6	0	0	1263
1986	0	0	26	42	85	363	488	243	233	9	0	0	1489
1987	0	0	0	61	192	344	410	335	126	0	9	0	1477
1988	0	0	0	4	140	314	375	458	191	11	0	0	1493
1989	0	0	11	90	107	206	399	311	81	41	0	0	1246
1990	0	0	1	26	39	377	403	366	241	37	7	0	1497
1991	0	0	11	22	192	371	478	387	229	69	0	0	1759
1992	0	0	0	25	61	134	344	217	162	20	0	0	963
1993	0	0	0	0	48	269	417	405	64	22	0	0	1225
1994	0	0	0	26	86	348	351	345	140	36	0	0	1332
1995	0	0	4	1	22	237	481	502	140	16	0	0	1403
1996	0	0	0	25	125	321	358	302	92	28	0	0	1251
1997	0	0	0	1	38	262	424	330	166	81	0	0	1302
1998	0	0	10	9	196	304	445	440	287	26	1	0	1718
1999	0	0	0	5	57	269	545	396	120	20	1	0	1413
2000	0	0	2	6	153	231	446	640	284	44	0	0	1806
2001	0	0	0	59	140	267	563	441	109	12	5	0	1596
2002	0	0	0	50	75	347	519	437	261	17	0	0	1706
2003	0	0	0	52	60	240	541	502	92	12	0	0	1499
2004	0	0	6	29	175	198	337	259	176	24	0	0	1204
2005	0	0	1	34	114	344	432	405	243	54	1	0	1628
2006	0	0	0	50	144	327	526	471	77	54	0	0	1649
2007	0	0	24	22	142	284	442	581	228	63	6	0	1792
2008	0	0	0	7	93	312	438	355	119	25	5	0	1354
2009	0	0	6	22	112	349	305	308	83	2	2	0	1189
2010	0	0	8	39	124	418	522	531	189	21	0	0	1852
2011	0	0	13	23	134	413	666	505	120	50	0	0	1924
2012	0	0	51	44	223	436	668	367	145	40	4	0	1978
2013	0	0	0	16	127	337	424	388	255	37	0	0	1584

SNOWFALL (inches) 2013 TOPEKA (KTOP)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0.0	0.0	0.0	0.0	T	9.8	18.2	7.9	0.5	0.0	0.0	0.0	36.4
1985-86	0.0	0.0	0.0	0.0	3.3	5.8	T	1.5	T	0.0	0.0	0.0	10.6
1986-87	0.0	0.0	0.0	T	0.7	1.7	15.1	2.3	0.5	0.0	0.0	0.0	20.3
1987-88	0.0	0.0	0.0	0.0	0.9	9.6	0.6	6.0	4.7	0.0	0.0	0.0	21.8
1988-89	0.0	0.0	0.0	0.0	0.7	0.8	T	9.0	1.6	0.0	T	T	12.1
1989-90	0.0	0.0	0.0	0.0	T	9.5	1.0	0.1	7.6	0.0	0.0	0.0	18.2
1990-91	0.0	0.0	0.0	0.0	0.0	2.9	9.6	T	T	T	T	0.0	
1991-92	0.0	0.0	0.0	T	6.2	0.1	T	T	0.9	T	0.0	T	7.2
1992-93	T	0.0	0.0	T	4.5	0.9	23.0	14.2	0.6	T	T	T	
1993-94	0.0	0.0	0.0	T	T	3.3	2.0	6.0	1.9	1.4	0.0	0.0	14.6
1994-95	0.0	T	0.0	0.0	T	0.8	2.0	0.1	5.0	T	T	0.0	
1995-96	0.0	0.0	0.0	0.0	0.7	5.5	8.3	T	T	T	0.0	T	14.5
1996-97	0.0	0.0	0.0	8.0	1.1	0.8	3.9	5.8	T	1.6	T	0.0	21.2
1997-98	0.0	0.0	0.0	T	T	8.2	2.0	T	4.4	T	0.0	T	14.6
1998-99	0.0	0.0	0.0	0.0	0.0	0.5	4.0	2.0	1.8	T	T	0.0	8.3
1999-00	0.0	0.0	0.0	0.0	0.0	7.6	3.7	0.2	T	0.0	0.0	0.0	11.5
2000-01	0.0	0.0	0.0	0.0	T	8.3	1.2	8.3	1.3	T	T	0.0	19.1
2001-02	0.0	0.0	0.0	0.0	0.0	T	6.2	0.4	2.8	0.0	T	0.0	9.4
2002-03	0.0	0.0	T	T	T	0.4	5.4	6.4	0.5	T	0.0	0.0	12.7
2003-04	0.0	0.0	0.0	0.0	0.0	3.8	2.0	13.3	0.0	0.0	0.0	0.0	19.1
2004-05	0.0	0.0	0.0	0.0	4.5	0.0	3.5	3.2	T	0.0	0.0	T	11.2
2005-06	0.0	0.0	0.0	0.0	0.5	10.8	0.5	0.1	0.6	T	T	0.0	12.5
2006-07	0.0	0.0	0.0	0.0	0.4	0.1	4.9	4.2	T	T	0.0	0.0	9.6
2007-08	0.0	0.0	0.0	0.0	0.8	16.5	4.7	10.5	0.1	T	0.0	0.0	32.6
2008-09	T	0.0	T	T	0.5	5.1	1.6	2.5	0.9	T	0.0	T	10.6
2009-10	0.0	0.0	0.0	0.0	T	19.2	6.7	9.6	5.2	T	0.0	0.0	40.7
2010-11	0.0	0.0	0.0	0.0	T	0.1	16.8	19.1	2.6	0.0	T	0.0	38.6
2011-12	0.0	0.0	0.0	0.0	T	0.1	0.1	1.8	1.1	T	T	0.0	3.1
2012-13	0.0	0.0	0.0	0.0	0.0	5.4	1.5	14.5	7.9	0.3	T	T	29.6
2013-	0.0	0.0	0.0	T	T	4.3							
POR= 66 YRS	T	T	T	0.1	1.0	4.9	5.4	4.9	3.1	0.4	T	T	19.8

WBAN : 13996

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. 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.</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</p>	<p>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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION 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.</p> <p>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.</p>
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2013 TOPEKA KANSAS (KTOP)

Topeka, is located near the geographical center of the United States, and the middle of the temperate zone. The city straddles the Kansas River about 60 miles above its junction with the Missouri River. The Kansas River flows in an easterly direction through northeastern Kansas. Near Topeka, the river valley ranges from 2 to 4 miles wide, and is bordered on both sides by rolling prairie uplands of some 200 to 300 feet. The city is built on both banks of the Kansas River and along two tributaries, Soldier Creek in north Topeka and Shunganunga Creek in the south and east part of town. Flooding is always a threat following periods of heavy rains but protective construction has reduced the problem.

Seventy percent of the annual precipitation normally falls during the six crop-growing months, April through September. The rains of this period are usually of short duration, predominantly of the thunderstorm type. They occur more frequently during the nighttime and early morning hours than at other times of the day. Excessive precipitation rates may occur with warm-season thunderstorms. Rainfall accumulations over 8 inches in 24 hours have occurred in Topeka. Tornadoes have occurred in the area on several occasions and caused severe damage and numerous injuries.

Individual summers show wide departures from average conditions. Hottest summers may produce temperatures of 100 degrees or higher on more than 50 days. On the other hand, 25 percent of the summers pass with two or fewer 100 degree days. Similarly, precipitation has shown a wide range for June, July, and August, varying from under 3 inches to more than 27 inches during the 3 months. Summers are hot with low relative humidity and persistent southerly winds. Oppressively warm periods with high relative humidity are usually of short duration.

Winter temperatures average about 45 degrees cooler than summer. Cold spells are seldom prolonged. Only on rare occasions do daytime temperatures fail to rise above freezing. Winter precipitation is often in the form of snow, sleet, or glaze, but storms of such severity to prevent normal movement of traffic or to interfere with scheduled activity are not common.

In the transitional spring and fall seasons, the numerous days of fair weather are interspersed with short intervals of stormy weather. Strong, blustery winds are quite common in late winter and spring. Autumn is characteristically a season of warm days, cool nights, and infrequent precipitation, with cold air invasions gradually increasing in intensity as the season progresses.

Nearly all crops of the temperate zone can be produced in the vicinity of Topeka. Wheat and other small grains, clover, soybeans, fruit, and berries do well, and the area supports an extensive dairy industry.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 14 and the average last occurrence in the spring is April 21.

Station History

TOPEKA, KS

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
TOPEKA MUNICIPAL AP BILLARD	1947-11-01 1932-01-01	1973-01-01 1934-02-28	39° 4'	-95° 37'	877		AIRWAYS, COOP AIRWAYS
TOPEKA MUNICIPAL AP BILLARD	2011-07-20 1944-01-01	Present 1944-02-18	39° 4'	-95° 37'	876		ASOS, COOP, WXSVC AIRWAYS
TOPEKA MUNICIPAL AP	1992-12-01	2000-05-16	39° 4'	-95° 37'	884		ASOS, COOP, WXSVC
TOPEKA MUNICIPAL AP	2000-05-16	2011-07-20	39° 4'	-95° 38'	881		ASOS, COOP, WXSVC
TOPEKA MUNICIPAL AP	1947-01-01	1947-11-01	39° 4'	-95° 37'	876		AIRWAYS
TOPEKA MUNICIPAL AP	1973-01-01	1992-12-01	39° 4'	-95° 37'	877		COOP, WXSVC
TOPEKA MUNICIPAL AP	1944-02-18	1946-01-01	39° 4'	-95° 37'			AIRWAYS
TOPEKA MUNICIPAL AP	1946-01-01	1947-01-01	39° 4'	-95° 37'	880		AIRWAYS

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1932-01-01	1976-04-16	DAILY	2400			
TEMP	1982-01-01	1992-06-11	DAILY	2400			
TEMP	1976-04-16	1982-01-01	DAILY	2400			
TEMP	1992-12-01	2011-07-20	DAILY	2400	HYGR		
PRECIP	1982-01-01	1992-06-11	DAILY	2400			
PRECIP	1992-06-11	1992-12-01	DAILY	2400			
PRECIP	1992-12-01	2011-07-20	DAILY	2400	TB	RCRD	
PRECIP	1976-04-16	1982-01-01	DAILY	2400			
TEMP	1992-06-11	1992-12-01	DAILY	2400	MXMN		
TEMP	2011-07-20	Present	DAILY	2400	ATEMP		
PRECIP	1982-01-01	1992-06-11	HOURLY	2400			
PRECIP	1992-12-01	2011-07-20	HOURLY	2400	TB	RCRD	
PRECIP	2011-07-20	Present	DAILY	2400	PCPNX	SHLD	
PRECIP	2011-07-20	Present	HOURLY	2400	AWPAG	SHLD; RCRD; HTD	
PRECIP	1932-01-01	1976-04-16	DAILY	2400	UNIV	RCRD	
PRECIP	1992-06-11	1992-12-01	HOURLY	2400			

* For explanation of codes and abbreviations 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

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TDD : (828) 271-4010

Email : ncdc.orders@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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