

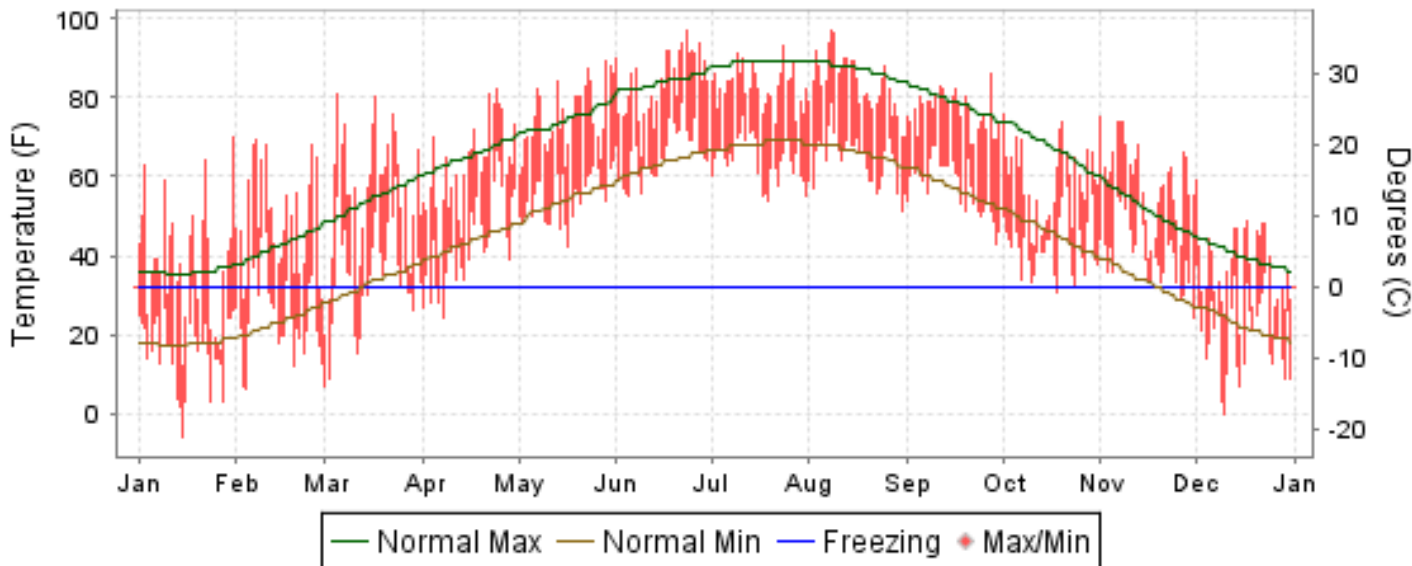


# 2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

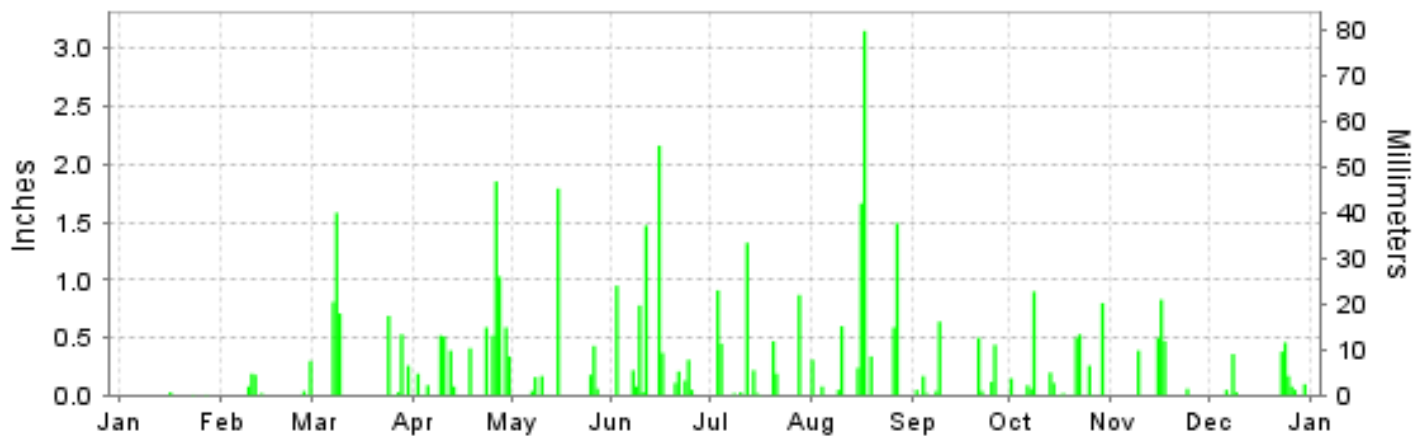
ISSN 0198-2850

## KANSAS CITY, KANSAS CITY, MISSOURI (KMCI)

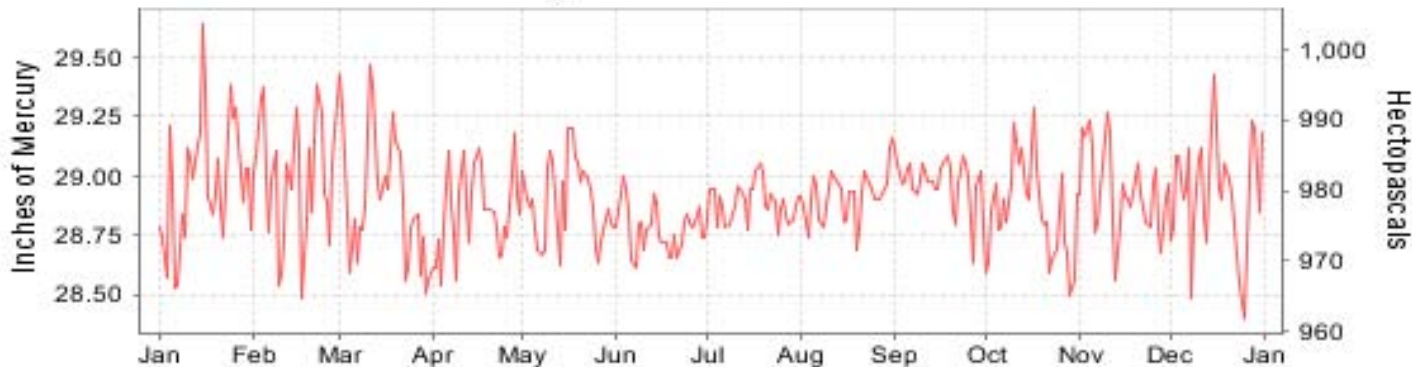
### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2009

## KANSAS CITY (KMCI)

LATITUDE: 39° 17'N      LONGITUDE: -94° 43'W      ELEVATION (FT): GRND: 976    BARO: 1008      TIME ZONE: CENTRAL (UTC -6)      WBAN: 03947

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	38.7	48.8	55.9	62.8	74.7	84.0	82.9	83.5	76.4	58.9	59.1	36.8	63.5	
	HIGHEST DAILY MAXIMUM	70	69	81	82	89	97	93	97	86	76	75	59	97	
	DATE OF OCCURRENCE	31	07	05	24	29	23	24	08	27	01	01	01	AUG 08	
	MEAN DAILY MINIMUM	16.3	24.8	34.5	43.2	54.8	65.6	64.2	64.4	57.5	42.3	40.6	20.2	44.0	
	LOWEST DAILY MINIMUM	-6	6	7	24	42	55	54	51	43	31	24	0	-6	
	DATE OF OCCURRENCE	15	04	01	07	17	05	19	30	29	18	30	10	JAN 15	
	AVERAGE DRY BULB	27.5	36.8	45.2	53.0	64.8	74.8	73.6	74.0	67.0	50.6	49.9	28.5	53.8	
	MEAN WET BULB	23.4	31.9	39.2	47.3	57.7	68.6	67.8	67.8	67.8	47.0	45.8	26.1		
	MEAN DEW POINT	14.6	22.9	31.9	40.8	52.1	65.4	64.3	64.7	64.7	42.8	41.9	21.6		
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	10	3	6	0	0	0	0	0	19
	MAXIMUM <= 32°	9	4	3	11	0	0	0	0	0	0	0	13	40	
MINIMUM <= 32°	31	21	13	5	0	0	0	0	0	2	3	27	102		
MINIMUM <= 0°	1	0	0	0	0	0	0	0	0	0	0	1	2		
H/C	HEATING DEGREE DAYS	1154	785	609	377	86	4	0	6	36	441	447	1124	5069	
	COOLING DEGREE DAYS	0	0	5	23	87	305	273	295	102	0	0	0	1090	
RH	MEAN (PERCENT)	60	59	63	66	66	75	74	75	72	76	77	78	70	
	HOUR 00 LST	64	64	69	70	75	83	83	84	79	82	82	81	76	
	HOUR 06 LST	69	72	75	78	82	89	88	89	87	88	88	83	82	
	HOUR 12 LST	51	50	54	60	54	64	62	63	60	66	67	70	60	
	HOUR 18 LST	55	49	54	55	57	66	63	64	62	71	72	76	62	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	0	1	1	0	1	0	0	0	0	1	1	5	
	THUNDERSTORMS	0	0	5	8	3	10	10	11	3	3	1	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.)	28.98	29.00	28.92	28.84	28.89	28.78	28.89	28.92	28.97	28.86	28.94	28.92	28.91	
	MEAN SEA-LEVEL PRESS. (IN.)	30.12	30.11	30.03	29.94	29.97	29.85	29.95	29.98	30.05	29.95	30.04	30.05	30.00	
WINDS	RESULTANT SPEED (MPH)	2.9	0.6	3.2	2.0	1.7	2.1	0.6	3.3	3.3	1.9	1.7	3.6	1.0	
	RES. DIR. (TENS OF DEGS.)	31	18	15	08	19	16	13	19	08	19	19	27	18	
	MEAN SPEED (MPH)	10.5	12.0	12.4	11.9	8.6	9.1	7.1	8.6	7.2	10.3	10.0	10.6	9.9	
	PREVAIL.DIR.(TENS OF DEGS.)	34	32	12	19	19	21	17	20	05	19	19	31	20	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	38	39	40	36	37	32	30	36	25	32	31	36	40	
	DIR. (TENS OF DEGS.)	34	18	18	29	35	06	06	12	15	23	20	35	18	
	DATE OF OCCURRENCE	14	09	23	26	15	23	10	10	30	30	06	24	MAR 23	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	44	48	51	46	43	43	40	45	33	41	39	45	51	
DIR. (TENS OF DEGS.)	22	18	16	30	35	20	28	13	15	22	20	35	16		
DATE OF OCCURRENCE	31	09	23	26	15	07	12	10	30	30	06	24	MAR 23		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.05	0.81	4.62	7.12	2.84	6.87	4.51	8.51	2.02	3.66	2.25	1.69	44.95	
	GREATEST 24-HOUR (IN.)	0.03	0.37	2.39	2.88	1.79	2.47	1.35	3.38	0.64	1.00	1.00	0.59	3.38	
	DATE OF OCCURRENCE	16	10-11	07-08	26-27	15	15-16	03-04	16-17	09	21-22	16-17	24-25	AUG 16-17	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	3	6	8	14	8	13	11	10	9	15	5	10	112	
PRECIPITATION 0.10	0	3	6	10	5	10	7	8	5	8	4	5	71		
PRECIPITATION 1.00	0	0	1	2	1	2	1	3	0	0	0	0	10		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	0.9	5.3	1.3	T	T	0.0	0.0	T	0.0	0.0	1.2	15.1	23.8	
	GREATEST 24-HOUR (IN.)	0.5	5.2	1.3	T	T	0.0	0.0	T	0.0	0.0	1.2	3.7	5.2	
	DATE OF OCCURRENCE	16	28	28	05	15			10			17	24	FEB 28	
	MAXIMUM SNOW DEPTH (IN.)	1	3	4	0	0	0	0	0	0	0	1	8	8	
	DATE OF OCCURRENCE	17	28	01								17	27	DEC 27	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	0	1	1	0	0	0	0	0	0	0	1	6	9		

# NORMALS, MEANS, AND EXTREMES KANSAS CITY (KMCI)

LATITUDE: 39° 17'N      LONGITUDE: -94° 43'W      ELEVATION (FT): GRND: 976    BARO: 1008      TIME ZONE: CENTRAL (UTC -6)      WBAN: 03947

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	36.0	42.6	54.4	65.2	74.6	83.9	88.8	87.1	79.0	67.6	52.0	40.0	64.3
	MEAN DAILY MAXIMUM	37	36.6	42.5	54.3	65.2	74.6	83.2	88.7	87.2	78.7	66.7	52.5	40.2	64.2
	HIGHEST DAILY MAXIMUM	37	71	78	86	93	95	105	107	109	106	95	82	74	109
	YEAR OF OCCURRENCE		2003	2006	1986	1987	2006	1980	1974	1984	2000	2006	2005	2001	AUG 1984
	MEAN OF EXTREME MAXS.	43	59.0	66.2	77.7	84.2	87.9	93.6	98.5	98.8	92.4	85.2	72.6	62.2	81.5
	NORMAL DAILY MINIMUM	30	17.8	23.3	33.2	43.5	53.9	63.2	68.2	66.1	57.2	45.9	33.4	22.5	44.0
	MEAN DAILY MINIMUM	37	18.6	23.3	33.3	44.1	54.1	63.1	68.4	66.6	57.3	45.8	34.0	22.8	44.3
	LOWEST DAILY MINIMUM	37	-17	-19	-10	12	30	42	51	43	31	17	1	-23	-23
	YEAR OF OCCURRENCE		1982	1982	1978	1975	1976	1990	1997	1986	1995	1993	1991	1989	DEC 1989
	MEAN OF EXTREME MINS.	43	-1.8	2.2	12.8	26.8	39.8	50.1	57.7	55.5	40.8	28.7	16.7	1.6	27.6
	NORMAL DRY BULB	30	26.9	33.0	43.8	54.4	64.3	73.6	78.5	76.6	68.1	56.8	42.7	31.3	54.2
	MEAN DRY BULB	43	27.8	33.0	43.9	55.1	64.6	73.6	78.6	77.1	68.4	56.6	43.4	31.9	54.5
	MEAN WET BULB	26	25.3	28.8	37.7	47.1	57.5	66.0	70.0	68.7	60.7	49.6	38.1	28.3	48.2
	MEAN DEW POINT	26	21.7	25.1	32.8	42.5	54.2	63.4	67.6	66.2	57.6	45.9	34.3	24.8	44.7
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.3	0.4	5.6	14.5	11.7	3.7	0.1	0.0	0.0	36.3
	MAXIMUM <= 32	30	12.1	7.3	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.9	8.0	31.2
MINIMUM <= 32	30	27.9	21.2	14.9	3.7	*	0.0	0.0	0.0	*	2.3	13.8	26.0	109.8	
MINIMUM <= 0	30	3.6	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	7.6	
H/C	NORMAL HEATING DEG. DAYS	30	1182	897	658	331	124	8	0	7	58	269	668	1047	5249
	NORMAL COOLING DEG. DAYS	30	0	0	0	12	101	264	418	367	151	12	0	0	1325
RH	NORMAL (PERCENT)	30	71	70	66	64	69	71	70	72	71	68	71	73	70
	hour 00 LST	30	74	74	71	70	77	79	78	79	79	74	75	76	76
	hour 06 LST	30	78	78	78	78	84	86	85	87	86	81	80	80	82
	hour 12 LST	30	65	63	58	56	59	60	59	60	59	56	62	66	60
	hour 18 LST	30	67	63	56	53	58	59	57	60	61	60	66	69	61
S	PERCENT POSSIBLE SUNSHINE	23	58	55	58	62	61	66	72	67	66	60	49	49	60
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	37	2.5	2.4	1.8	0.9	1.1	0.8	0.5	1.1	1.1	1.6	1.8	2.9	18.5
	THUNDERSTORMS	37	0.3	0.9	2.8	5.1	7.9	8.9	7.8	7.2	5.4	3.2	1.3	0.4	51.2
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)				5.6			4.0							
	MIDNIGHT-MIDNIGHT (OKTAS)				6.4										
	MEAN NO. DAYS WITH: CLEAR	1	4.0	5.0	10.0		6.0	7.0							
	PARTLY CLOUDY	1	1.0	1.0	5.0			9.0							
	CLOUDY	1	3.0		9.0		9.0	5.0							
PR	MEAN STATION PRESSURE(IN)	26	29.01	28.99	28.93	28.85	28.86	28.86	28.90	28.93	28.94	28.95	28.96	29.00	28.93
	MEAN SEA-LEVEL PRES. (IN)	26	30.14	30.12	30.03	29.94	29.93	29.93	29.96	29.99	30.02	30.04	30.07	30.13	30.03
WINDS	MEAN SPEED (MPH)	26	11.1	10.9	12.1	12.3	10.4	9.7	9.1	8.7	9.4	10.3	11.0	10.7	10.5
	PREVAIL.DIR(TENS OF DEGS)	37	20	20	19	20	19	19	20	20	19	19	19	20	20
	MAXIMUM 2-MINUTE: SPEED (MPH)	14	40	40	46	48	51	51	58	39	41	40	37	40	58
	DIR. (TENS OF DEGS)		21	20	23	20	27	01	02	30	14	21	31	19	02
	YEAR OF OCCURRENCE		2008	2000	2000	2001	2008	2000	2000	2006	1996	1996	2002	2004	JUL 2000
	MAXIMUM 3-SECOND SPEED (MPH)	14	52	52	58	59	66	61	74	55	49	52	52	52	74
	DIR. (TENS OF DEGS)		19	19	23	18	25	36	01	14	14	23	33	18	01
	YEAR OF OCCURRENCE		2008	2000	2000	2001	2008	2000	2000	2001	1996	1996	1997	2008	JUL 2000
PRECIPITATION	NORMAL (IN)	30	1.15	1.31	2.44	3.38	5.39	4.44	4.42	3.54	4.64	3.33	2.30	1.64	37.98
	MAXIMUM MONTHLY (IN)	37	2.66	3.25	9.08	8.43	12.75	11.86	15.47	9.58	11.34	8.15	5.12	5.42	15.47
	YEAR OF OCCURRENCE		1982	2001	1973	1999	1995	2001	1992	1982	1977	1998	1992	1980	JUL 1992
	MINIMUM MONTHLY (IN)	37	0.02	0.04	0.33	0.66	1.05	1.27	0.12	0.50	1.13	0.21	0.01	0.03	0.01
	YEAR OF OCCURRENCE		1986	2006	1994	2000	1992	2006	2003	2000	1974	1988	1995	1996	NOV 1995
	MAXIMUM IN 24 HOURS (IN)	37	1.83	2.21	3.07	4.69	4.26	4.48	5.08	6.19	8.82	4.92	2.15	3.67	8.82
	YEAR OF OCCURRENCE		1982	2008	2001	1975	1974	2001	1986	1982	1977	1973	1998	1980	SEP 1977
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	7.3	7.1	10.0	11.0	11.5	10.5	8.6	8.5	8.4	7.4	7.9	7.5	105.7
	PRECIPITATION >= 1.00	30	0.1	0.1	0.3	0.7	1.5	1.3	1.4	0.9	1.4	1.0	0.6	0.4	9.7
SNOWFALL	NORMAL (IN)	30	5.8	5.0	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.3	1.3	4.3	20.1
	MAXIMUM MONTHLY (IN)	37	14.2	15.7	11.4	7.2	T	T	T	T	T	6.5	7.1	15.1	15.7
	YEAR OF OCCURRENCE		1977	1993	1978	1983	2009	2008	2007	2009	1992	1996	1975	2009	FEB 1993
	MAXIMUM IN 24 HOURS (IN)	37	9.5	10.8	9.2	4.0	T	T	T	T	T	6.5	6.1	10.8	10.8
	YEAR OF OCCURRENCE		1993	1993	1990	1983	2009	1994	1992	2009	1992	1996	1975	1987	FEB 1993
	MAXIMUM SNOW DEPTH (IN)	36	12	11	9	2	0	0	0	0	0	0	7	11	12
	YEAR OF OCCURRENCE		1979	1979	1990	1994							1975	1987	JAN 1979
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	2.0	1.7	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.3	6.8

**PRECIPITATION (inches) 2009 KANSAS CITY (KMCI)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	1.60	1.44	3.64	1.02	3.06	2.52	1.99	4.89	1.63	4.13	0.45	5.42	31.79
1981	0.49	0.31	1.43	1.94	9.46	7.44	8.43	2.43	2.71	4.14	2.84	0.45	42.07
1982	2.66	1.13	2.94	1.55	9.81	6.04	2.73	9.58	1.58	3.04	2.21	3.94	47.21
1983	0.58	0.57	2.93	5.52	6.03	5.03	0.26	0.86	1.89	3.85	3.94	1.42	32.88
1984	0.14	1.96	4.52	6.82	2.26	4.14	3.91	0.75	3.42	6.04	1.24	3.57	38.77
1985	0.94	2.69	2.05	1.75	7.00	3.56	5.82	6.98	9.23	7.51	3.95	1.24	52.72
1986	0.02	1.25	1.34	2.12	4.76	2.48	8.36	3.16	10.40	3.17	1.18	1.20	39.44
1987	0.77	2.26	2.85	2.24	4.74	4.58	3.00	4.64	3.66	1.32	1.88	2.05	33.99
1988	1.40	0.72	1.43	2.15	2.14	1.80	1.21	1.87	8.48	0.21	1.96	0.85	24.22
1989	0.98	0.59	2.13	1.50	4.56	3.44	4.76	7.38	8.87	2.88	T	0.55	37.64
1990	1.20	2.11	3.90	2.47	7.36	6.27	4.40	5.04	1.28	2.46	3.01	1.11	40.61
1991	1.37	0.20	2.36	4.99	3.69	3.06	1.72	1.35	2.12	3.71	2.05	2.08	28.70
1992	1.21	2.01	3.79	4.92	1.05	3.84	15.47	2.37	5.69	1.38	5.12	3.78	50.63
1993	1.96	1.28	2.21	5.59	7.30	5.67	10.90	3.98	7.63	1.75	2.07	1.12	51.46
1994	0.63	1.47	0.33	6.98	1.29	2.45	2.79	3.54	2.65	1.27	3.18	1.76	28.34
1995	1.42	1.35	1.12	2.12	12.75	3.36	4.64	4.00	1.85	0.50	1.18	0.40	34.69
1996	1.12	0.35	1.28	1.80	10.29	7.51	4.83	2.97	3.44	3.67	3.15	.03	40.44
1997	0.69	2.94	1.16	4.13	4.63	2.90	3.53	2.49	3.34	2.98	1.95	2.33	33.07
1998	0.97	1.10	3.44	2.15	1.75	9.22	4.97	3.61	8.69	8.15	4.29	1.19	49.53
1999	2.30	1.71	1.49	8.43	5.62	8.67	0.51	1.56	5.32	0.67	1.63	2.18	40.09
2000	0.46	2.21	2.93	0.66	4.55	7.55	6.02	0.50	3.13	3.55	2.59	0.81	34.96
2001	2.08	3.25	3.88	4.03	4.81	11.86	6.26	5.48	7.98	2.56	0.56	0.75	53.50
2002	1.66	0.73	1.03	4.53	6.97	1.44	1.18	2.06	1.31	3.51	0.32	0.03	24.77
2003	0.47	0.74	1.27	4.80	2.64	6.02	0.12	4.72	2.61	0.84	1.61	2.11	27.95
2004	0.61	1.62	3.59	2.43	5.12	6.20	4.26	4.15	3.48	3.08	2.67	0.38	37.59
2005	2.51	2.39	0.87	2.32	5.66	10.22	1.24	8.34	3.61	4.10	1.15	1.73	44.14
2006	1.11	0.04	1.78	4.15	1.67	1.27	3.20	7.66	2.22	3.29	2.72	1.76	30.87
2007	0.84	1.40	2.85	3.09	5.94	4.16	0.99	1.71	2.47	6.46	0.20	2.91	33.02
2008	0.97	3.10	2.72	4.53	3.96	4.31	6.63	1.19	9.82	4.01	1.59	1.83	44.66
2009	0.05	0.81	4.62	7.12	2.84	6.87	4.51	8.51	2.02	3.66	2.25	1.69	44.95
POR= 43 YRS	1.13	1.28	2.38	3.68	5.04	4.99	4.11	3.85	4.58	3.54	2.00	1.61	38.19

WBAN : 03947

**AVERAGE TEMPERATURE (°F) 2009 KANSAS CITY (KMCI)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	28.7	25.2	38.7	54.6	63.9	75.3	85.2	80.3	69.6	54.1	44.5	32.1	54.4
1981	30.3	33.4	45.2	61.1	60.5	74.1	78.3	72.9	68.4	55.3	45.6	29.0	54.5
1982	18.6	27.8	42.5	51.1	65.5	68.8	79.4	75.0	67.5	55.6	41.9	35.5	52.4
1983	30.1	35.9	43.1	46.3	59.6	70.8	81.5	83.5	71.2	57.2	44.3	13.2	53.1
1984	25.0	38.9	36.0	50.3	60.4	74.3	76.1	79.0	66.1	56.8	43.9	35.5	53.5
1985	18.7	25.3	47.4	57.9	66.0	68.8	77.0	72.1	66.7	56.5	36.8	22.9	51.3
1986	34.5	30.5	48.5	57.1	65.2	76.5	79.7	72.0	71.8	56.9	37.9	34.5	55.4
1987	29.7	39.4	47.1	56.8	70.6	76.0	79.9	76.4	67.8	52.0	46.7	35.1	56.5
1988	26.7	27.9	43.2	54.5	69.1	78.1	79.6	81.3	70.5	52.2	44.8	35.2	55.3
1989	37.7	22.8	43.8	56.9	63.2	71.1	77.8	75.5	63.2	57.9	42.3	21.1	52.8
1990	37.9	36.2	45.7	52.7	60.4	75.5	77.3	77.1	72.1	57.1	50.1	29.3	56.0
1991	22.9	39.4	47.2	56.7	67.6	76.1	80.6	77.7	68.8	57.6	36.7	36.1	55.6
1992	35.9	39.8	46.9	53.1	62.6	69.7	74.4	70.7	66.1	56.6	39.0	32.9	54.0
1993	25.9	28.6	39.8	50.4	63.5	72.9	77.6	77.8	62.8	53.6	39.4	34.5	52.2
1994	25.2	30.0	46.0	53.8	64.6	75.8	76.0	75.3	67.7	57.5	46.3	36.5	54.6
1995	28.2	35.9	45.0	52.5	59.4	72.7	78.2	78.9	65.2	57.1	40.1	31.1	53.7
1996	23.1	34.2	37.7	52.8	64.5	73.8	75.2	74.9	64.8	56.3	37.0	29.7	52.0
1997	24.4	33.8	45.3	48.8	59.9	73.1	77.7	74.5	69.2	57.9	40.7	33.5	53.2
1998	33.8	41.3	39.1	54.3	71.1	73.5	77.8	77.0	72.4	58.6	48.0	34.8	56.8
1999	27.8	41.2	42.6	54.6	63.4	71.5	81.0	76.3	65.7	57.0	51.9	35.8	55.7
2000	31.8	40.8	47.1	55.0	67.3	71.2	76.8	81.8	71.0	59.9	36.6	19.1	54.9
2001	29.2	30.0	40.0	60.3	66.1	72.1	80.7	77.4	65.7	56.0	51.2	37.3	55.5
2002	34.1	37.0	40.1	56.9	61.9	76.1	81.3	78.6	72.9	50.7	41.5	36.6	55.6
2003	27.3	30.3	43.5	57.4	63.3	70.9	81.1	81.5	64.6	57.6	42.9	35.4	54.7
2004	27.4	31.5	47.6	56.9	67.3	70.6	75.0	72.5	70.0	57.8	46.8	34.5	54.8
2005	28.3	38.3	43.7	56.8	64.6	75.5	78.9	78.1	72.6	58.5	47.5	30.0	56.1
2006	42.7	35.3	46.6	62.2	67.1	76.1	81.6	80.2	66.4	56.3	46.4	38.3	58.3
2007	28.8	28.1	52.6	51.9	68.2	73.2	77.4	82.9	71.2	59.6	43.9	29.9	55.6
2008	27.5	27.7	41.6	51.6	63.7	73.9	77.2	75.4	66.6	55.6	43.2	28.8	52.7
2009	27.5	36.8	45.2	53.0	64.8	74.8	73.6	74.0	67.0	50.6	49.9	28.5	53.8
POR= 43 YRS	27.8	33.0	43.9	55.1	64.6	73.6	78.6	77.1	68.4	56.6	43.4	31.9	54.5

**HEATING DEGREE DAYS (base 65°F) 2009 KANSAS CITY (KMCI)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0	0	63	347	609	1011	1069	880	607	169	179	2	4936
1981-82	0	2	40	309	573	1112	1432	1037	690	416	51	32	5694
1982-83	0	2	78	307	688	911	1074	810	675	557	180	29	5311
1983-84	0	0	57	271	617	1602	1234	750	891	443	175	1	6041
1984-85	0	0	143	269	624	907	1431	1102	538	256	41	19	5330
1985-86	0	3	131	260	841	1297	940	960	528	267	60	0	5287
1986-87	0	12	23	251	805	938	1088	712	549	298	15	0	4691
1987-88	0	3	30	398	552	922	1180	1069	668	311	19	0	5152
1988-89	2	1	18	394	599	915	836	1176	658	319	135	7	5060
1989-90	0	1	138	267	675	1360	836	800	601	398	167	10	5253
1990-91	1	0	44	278	452	1104	1296	709	553	258	62	0	4757
1991-92	0	0	96	277	841	888	898	724	554	367	137	6	4788
1992-93	0	7	80	271	773	987	1203	1011	775	431	88	26	5652
1993-94	0	2	118	365	760	938	1227	974	581	353	91	1	5410
1994-95	0	4	69	252	552	878	1135	807	613	370	196	1	4877
1995-96	0	0	111	255	743	1047	1295	891	840	381	110	10	5683
1996-97	0	0	95	291	835	1089	1252	865	603	476	184	1	5691
1997-98	3	0	25	290	720	971	960	658	806	323	18	27	4801
1998-99	0	0	9	213	505	930	1145	656	690	313	84	12	4557
1999-00	0	0	94	261	392	898	1024	694	554	303	58	9	4287
2000-01	0	0	52	195	845	1416	1102	972	768	190	67	16	5623
2001-02	0	0	71	280	407	854	949	777	765	283	150	0	4536
2002-03	0	0	14	457	698	876	1162	963	659	270	91	27	5217
2003-04	0	0	93	235	657	912	1158	967	540	267	85	5	4919
2004-05	0	4	10	237	539	938	1128	742	654	266	104	0	4622
2005-06	0	0	27	258	524	1077	682	826	563	145	94	0	4196
2006-07	0	0	46	323	551	822	1114	1027	397	406	26	0	4712
2007-08	0	0	28	217	628	1082	1155	1075	719	400	109	0	5413
2008-09	0	0	55	306	651	1120	1154	785	609	377	86	4	5147
2009-	0	6	36	441	447	1124							

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**COOLING DEGREE DAYS (base 65°F) 2009 KANSAS CITY (KMCI)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	0	0	0	21	69	316	632	483	210	15	0	0	1746
1981	0	0	0	58	44	279	418	253	149	14	0	0	1215
1982	0	0	0	8	75	154	452	320	158	26	0	0	1193
1983	0	0	3	5	19	210	517	582	251	31	1	0	1619
1984	0	0	0	9	41	287	353	445	184	23	0	0	1342
1985	0	0	0	49	77	137	379	230	191	5	0	0	1068
1986	0	0	24	35	73	352	466	237	232	7	0	0	1426
1987	0	0	0	58	196	336	474	364	118	1	9	0	1556
1988	0	0	2	5	151	400	459	514	188	5	0	0	1724
1989	0	0	9	85	88	196	402	334	87	56	0	0	1257
1990	0	0	8	33	33	331	394	384	263	40	11	0	1497
1991	0	0	9	16	154	339	490	399	219	54	0	0	1680
1992	0	0	1	20	71	154	298	191	121	19	0	0	875
1993	0	0	0	0	49	271	398	406	55	19	0	0	1198
1994	0	0	0	23	86	331	345	333	154	28	0	0	1300
1995	0	0	0	1	27	239	417	438	123	18	0	0	1263
1996	0	0	0	19	105	282	325	313	94	29	0	0	1167
1997	0	0	0	0	33	248	403	300	159	75	0	0	1218
1998	0	0	10	10	213	291	407	378	237	20	0	0	1566
1999	0	0	0	7	42	215	501	358	123	24	4	0	1274
2000	0	0	4	10	134	202	369	528	239	41	0	0	1527
2001	0	0	0	58	109	239	495	392	100	8	1	0	1402
2002	0	0	0	47	60	341	512	426	255	18	0	0	1659
2003	0	0	0	47	41	209	505	517	85	15	0	0	1419
2004	0	0	6	32	164	178	316	244	166	18	0	0	1124
2005	0	0	2	28	101	319	438	415	263	62	7	0	1635
2006	0	0	0	65	166	340	519	478	96	60	0	0	1724
2007	0	0	16	20	133	253	393	560	222	56	1	0	1654
2008	0	0	0	7	76	272	383	329	108	21	3	0	1199
2009	0	0	5	23	87	305	273	295	102	0	0	0	1090

**SNOWFALL (inches) 2009 KANSAS CITY (KMCI)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0.0	0.0	0.0	T	T	3.2	4.0	2.9	0.1	0.0	0.0	0.0	10.2
1981-82	0.0	0.0	0.0	0.0	0.1	5.3	6.0	12.7	4.0	1.3	0.0	0.0	29.4
1982-83	0.0	0.0	0.0	0.0	0.5	0.7	6.3	7.4	1.3	7.2	0.0	0.0	23.4
1983-84	0.0	0.0	0.0	0.0	0.7	13.2	1.3	0.5	8.7	0.0	0.0	0.0	24.4
1984-85	0.0	0.0	0.0	0.0	0.4	7.0	11.8	6.9	0.3	0.0	0.0	0.0	26.4
1985-86	0.0	0.0	0.0	0.0	3.5	5.4	T	4.5	T	T	0.0	0.0	13.4
1986-87	0.0	0.0	0.0	T	0.6	1.2	10.5	5.0	T	0.0	0.0	0.0	17.3
1987-88	0.0	0.0	0.0	T	2.0	11.9	0.9	9.3	2.2	0.0	0.0	0.0	26.3
1988-89	0.0	0.0	0.0	0.0	0.1	0.1	0.2	6.5	T	0.0	T	T	6.9
1989-90	0.0	0.0	0.0	0.0	T	6.8	1.0	2.1	9.6	0.0	T	0.0	19.5
1990-91	0.0	0.0	0.0	0.0	1.7	1.6	12.1	T	1.2	T	0.0	0.0	16.6
1991-92	0.0	0.0	0.0	0.0	4.6	0.2	T	2.0	0.5	2.8	0.0	0.0	10.1
1992-93	T	0.0	T	T	4.1	0.8	12.0	15.7	1.1	0.6	0.0	T	34.3
1993-94	0.0	0.0	0.0	T	0.5	2.7	1.4	10.3	0.5	2.6	0.0	T	18.0
1994-95	0.0	0.0	0.0	0.0	0.0	2.5	1.3	0.7	2.4	T	0.0	0.0	6.9
1995-96	0.0	0.0	0.0	0.0	0.7	5.3	11.4	T	0.7	1.0	0.0	0.0	19.6
1996-97				6.5	4.8	.5	9.8	6.3	0.0	1.3	T	0.0	
1997-98	0.0	0.0	0.0	1.0	0.5	10.9	0.6	1.0	5.6	0.0	T	T	19.6
1998-99	0.0	0.0	0.0	0.0	0.0	1.4	4.3	4.7	2.5	T	0.0	0.0	12.9
1999-00	0.0	0.0	0.0	0.0	0.0	3.9	4.9	2.1	2.0	0.0	T	0.0	12.9
2000-01	0.0	0.0	0.0	0.0	T	11.8	2.0	7.7	1.3	0.0	T	T	22.8
2001-02	0.0	T	T	T	0.0	T	5.1	T	3.5	0.0	0.0	0.0	8.6
2002-03	0.0	0.0	0.0	T	T	0.3	4.8	2.7	1.6	T	0.0	0.0	9.4
2003-04	0.0	0.0	T	0.0	T	7.1	1.8	11.3	0.0	0.0	0.0	T	20.2
2004-05	0.0	0.0	0.0	0.0	6.8	0.0	4.3	2.2	T	0.0	T	T	13.3
2005-06	0.0	0.0	0.0	0.0	T	11.1	0.8	0.5	1.0	T	0.0	0.0	13.4
2006-07	0.0	0.0	0.0	0.0	0.4	T	6.0	3.6	0.2	T	0.0	0.0	10.2
2007-08	T	0.0	0.0	0.0	0.4	9.4	4.8	8.9	0.6	0.0	0.0	T	24.1
2008-09	0.0	0.0	0.0	0.0	0.9	6.2	0.9	5.3	1.3	T	T	0.0	14.6
2009-	0.0	T	0.0	0.0	1.2	15.1							
POR= 36 YRS	T	T	T	0.2	1.2	4.4	5.0	4.7	2.3	0.7	T	T	18.5

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**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 METADATA SYSTEM", URL IS: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a></p> <p><b>NOTE:</b> 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

## INTERNATIONAL AIRPORT

### KANSAS CITY, MISSOURI (KMCI)

The National Weather Service Office at Kansas City is very near the geographical center of the United States. The surrounding terrain is gently rolling. It has a modified continental climate. There are no natural topographic obstructions to prevent the free sweep of air from all directions. The influx of moist air from the Gulf of Mexico, or dry air from the semi-arid regions of the southwest, determine whether wet or dry conditions will prevail. There is often conflict between the warm moist gulf air and the cold polar continental air from the north in this area.

Early spring brings a period of frequent and rapid fluctuations in weather, with the fluctuations generally less frequent as spring progresses. The summer season is characterized by warm days and mild nights, with moderate humidities. July is the warmest month. The fall season is normally mild and usually includes a period near the middle of the season characterized by mild, sunny days, and cool nights. Winters are not severely cold. January is the coldest month. Falls of snow to a depth of 10 inches or more are comparatively rare. The distribution of measurable snow normally extends from November to April.

Nearly 60 percent of the annual precipitation occurs during the six months from April through September. More than 75 percent of the annual moisture normally falls during the growing season. The frequency and distribution of precipitation over a normal day is also important. The maximum frequency of precipitation, from April through October, occurs during the six hours following midnight and the minimum frequency occurs during the six hours following noon.

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