

1998

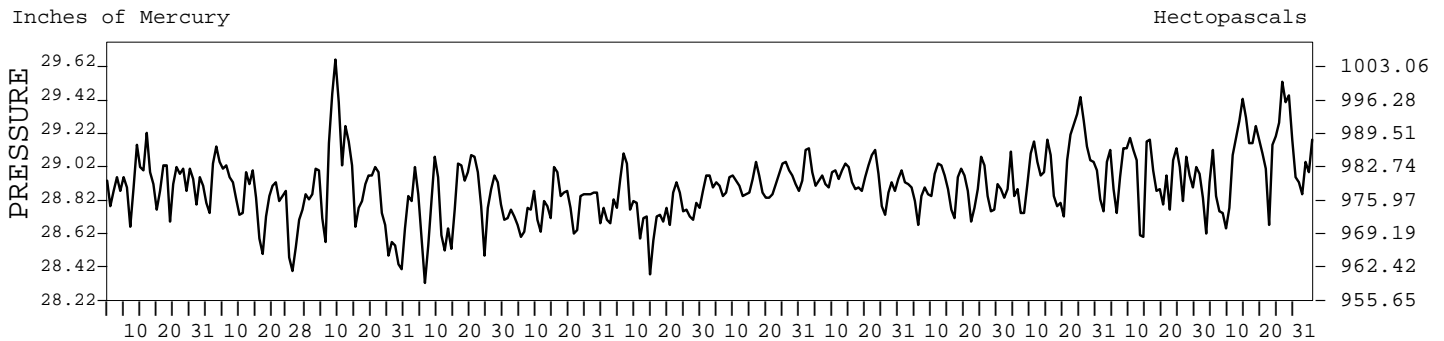
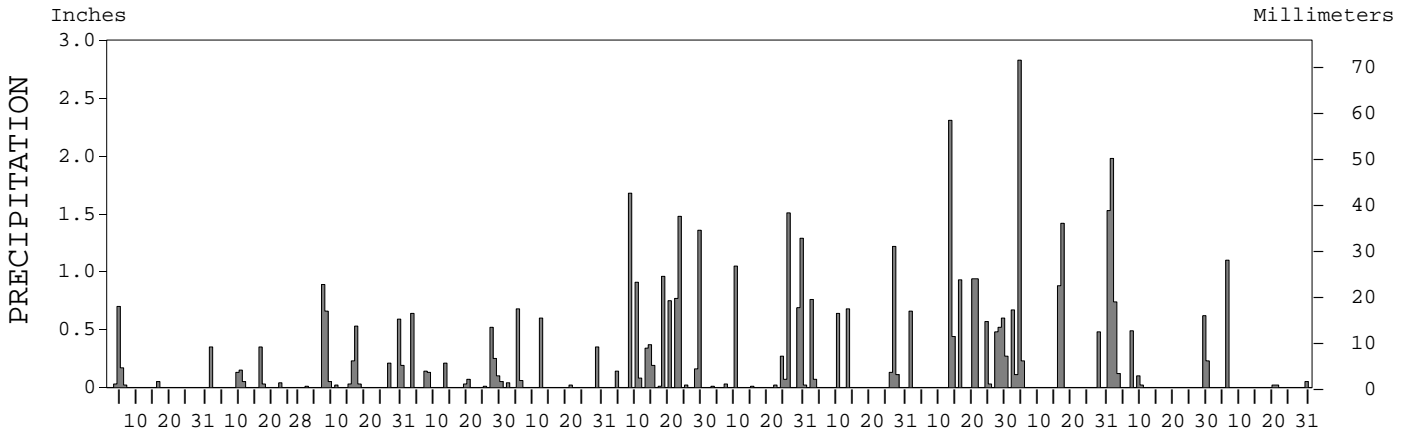
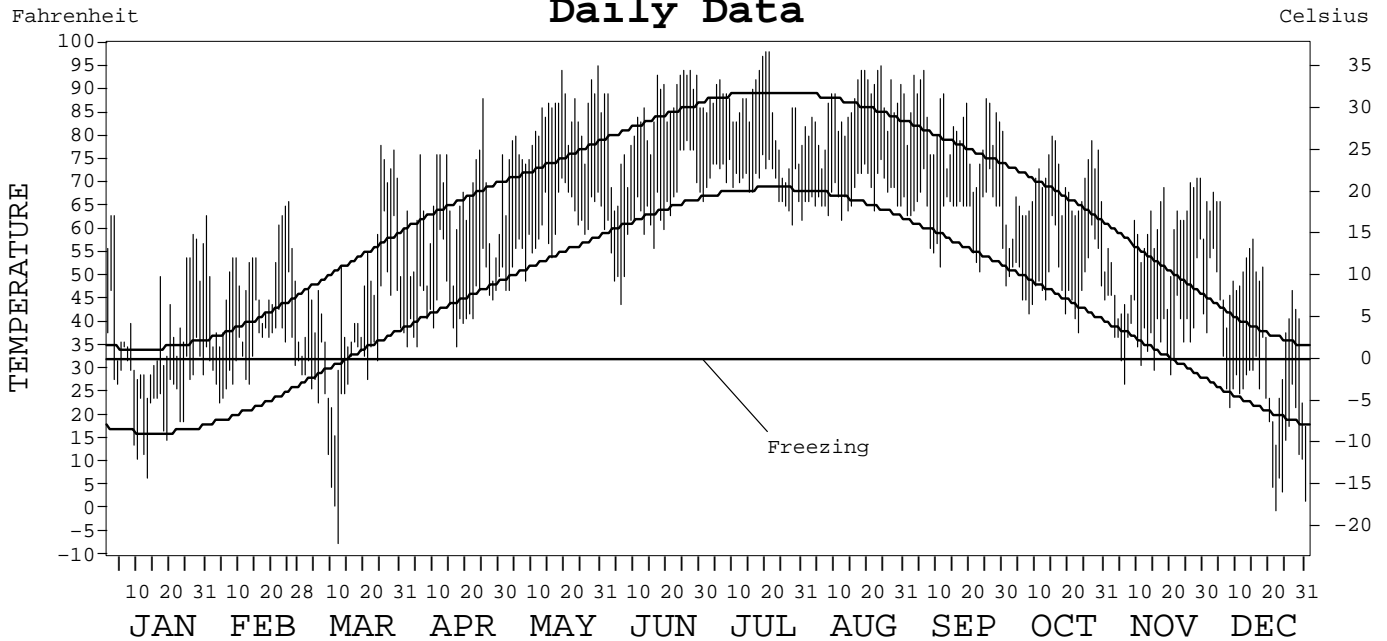
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-2877

INTERNATIONAL AIRPORT,
KANSAS CITY, MISSOURI (MCI)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE	NATIONAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 1998

KANSAS CITY, MO (MCI)

LATITUDE: 39° 17' 57" N LONGITUDE: 94° 43' 04" W ELEVATION (FT): GRND: 973 BARO: 975 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	41.6	48.5	46.6	64.3	82.1	83.5	85.6	86.3	81.7	67.9	57.3	44.3	65.8	
	HIGHEST DAILY MAXIMUM	63	66	78	88	95	94	98	95	94	80	71	68	98	
	DATE OF OCCURRENCE	31+	25	25	25	30	27+	21+	24	06	15	29+	03	JUL 21+	
	MEAN DAILY MINIMUM	26.0	34.0	31.5	44.3	60.0	63.5	70.0	67.7	63.0	49.3	38.6	25.2	47.8	
	LOWEST DAILY MINIMUM	7	23	-7	35	47	44	61	62	51	38	27	0	-7	
	DATE OF OCCURRENCE	13	04	12	17+	03	06	28	12	23	23	06	22	MAR 12	
	AVERAGE DRY BULB	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	
	MEAN WET BULB	31.0	37.4	35.8	48.0	64.2	66.7	72.6	71.5	66.9	53.9	44.6	31.4	52.0	
	MEAN DEW POINT	26.7	32.7	30.8	41.2	59.6	62.5	70.4	69.2	64.1	50.4	40.6	26.2	47.9	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	3	10	8	9	3	0	0	0	33	
	MAXIMUM ≤ 32°	10	0	4	0	0	0	0	0	0	0	0	7	21	
	MINIMUM ≤ 32°	24	13	16	0	0	0	0	0	0	0	6	23	82	
MINIMUM ≤ 0°	0	0	1	0	0	0	0	0	0	0	0	1	2		
H/C	HEATING DEGREE DAYS	960	658	806	323	18	27	0	0	9	213	505	930	4449	
	COOLING DEGREE DAYS	0	0	10	10	213	291	407	378	237	20	0	0	1566	
RH	MEAN (PERCENT)	77	74	73	64	69	69	80	79	78	77	78	73	74	
	HOUR 06 LST	83	82	79	77	83	80	91	91	90	90	88	82	85	
	HOUR 12 LST	72	68	68	56	57	61	73	68	67	66	68	65	66	
	HOUR 18 LST	74	68	68	53	58	59	71	71	72	72	73	68	67	
	HOUR 24 LST	79	78	76	70	77	75	86	87	84	82	80	75	79	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	5	3	4	0	2	2	2	1	4	2	2	0	27	
	THUNDERSTORMS	0	2	2	3	5	13	8	4	9	5	2	1	54	
CLOUDINESS	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.)	28.91	28.81	28.88	28.80	28.76	28.75	28.91	28.93	28.86	29.00	28.93	29.07	28.88	
	MEAN SEA-LEVEL PRESS. (IN.)	30.03	29.91	29.99	29.88	29.83	29.81	29.98	30.00		30.09	30.03	30.19		
WINDS	RESULTANT SPEED (MPH)	0.7	0.8	1.6	1.3	3.5	3.4	1.9	2.5	2.6	3.5	3.8	2.7	1.6	
	RES. DIR. (TENS OF DEGS.)	22	31	36	19	15	16	11	14	12	15	18	23	16	
	MEAN SPEED (MPH)	9.5	9.3	12.6	12.2	9.8	12.0	7.9	7.8	8.5	9.6	11.4	9.6	10.0	
	PREVAIL. DIR. (TENS OF DEGS.)	19	29	06	16	16	17	09	20	11	19	19	19	18	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	31	33	40	47	38	47	28	29	31	37	37	31	47	
	DIR. (TENS OF DEGS.)	20	15	20	17	18	19	17	33	20	10	22	32	19	
	DATE OF OCCURRENCE	01	25	26	12	15	25	15	27	26	04	10	29	JUN 25	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	38	40	51	57	51	57	31	34	43	46	48	37	57	
DIR. (TENS OF DEGS.)	20	15	20	16	18	24	16	34	18	09	22	32	24		
DATE OF OCCURRENCE	02+	25	26	12	15	18	15	27	26	04	10	29+	JUN 18		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	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	
	GREATEST 24-HOUR (IN.)	0.70	0.36	1.25	0.64	0.73	1.68	1.93	1.29	2.31	2.91	2.15	1.10	2.91	
	DATE OF OCCURRENCE	04	16-17	07-08	03	05-06	08	29-30	27-28	13	04-05	01-02	06	OCT 04-05	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	5	7	12	11	6	15	11	7	12	8	8	4	106	
PRECIPITATION ≥ 0.10	2	4	7	7	3	12	5	6	11	8	7	1	73		
PRECIPITATION ≥ 1.00	0	0	0	0	0	3	3	1	1	3	1	1	13		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	0.6	1.0	5.6	0.0	T	T	0.0	0.0	0.0	0.0	0.0	1.4	8.6	
	GREATEST 24-HOUR (IN.)	0.5	1.0	4.8	0.0	T	T	0.0	0.0	0.0	0.0	0.0	1.0	4.8	
	DATE OF OCCURRENCE	16	11	08-09		29	20+						30	MAR 08-09	
	MAXIMUM SNOW DEPTH (IN.)	1	T	5	0	0	0	0	0	0	0	0	1	5	
	DATE OF OCCURRENCE	17	12	09									31	MAR 09	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	0	1	1	0	0	0	0	0	0	0	0	1	3		

NORMALS, MEANS, AND EXTREMES

KANSAS CITY, MO (MCI)

LATITUDE: 39° 17' 57" N LONGITUDE: 94° 43' 04" W ELEVATION (FT): GRND: 973 BARO: 975 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	34.7	40.6	52.8	65.1	74.3	83.3	88.7	86.4	78.1	67.5	52.6	38.8	63.6
	MEAN DAILY MAXIMUM	26	35.4	41.8	53.8	64.5	74.2	83.6	88.7	86.7	78.4	66.7	51.3	39.7	63.7
	HIGHEST DAILY MAXIMUM	26	69	77	86	93	95	105	107	109	102	92	82	70	109
	YEAR OF OCCURRENCE		1989	1995	1986	1987	1998	1980	1974	1984	1990	1976	1990	1980	AUG 1984
	MEAN OF EXTREME MAXS.	26	57.1	65.6	77.7	84.0	87.6	94.2	98.7	98.1	92.2	85.0	71.1	61.1	81.0
	NORMAL DAILY MINIMUM	30	16.7	21.8	32.6	43.8	53.9	63.1	68.2	65.7	56.9	45.7	33.6	21.9	43.7
	MEAN DAILY MINIMUM	26	17.6	22.9	33.3	43.5	53.9	63.2	68.4	66.1	57.2	45.6	33.4	22.5	44.0
	LOWEST DAILY MINIMUM	26	-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.	26	-2.9	0.8	12.1	26.5	39.3	49.4	57.4	54.6	40.2	28.4	16.0	0.4	26.9
	NORMAL DRY BULB	30	25.7	31.2	42.7	54.5	64.1	73.2	78.5	76.1	67.5	56.6	43.1	30.4	53.6
	MEAN DRY BULB	26	26.6	32.4	43.5	54.0	64.0	73.4	78.7	76.3	67.9	56.2	42.3	31.1	53.9
	MEAN WET BULB	15	26.0	29.9	38.5	47.3	58.4	66.7	70.2	68.7	61.2	50.3	37.8	27.4	48.5
	MEAN DEW POINT	15	20.4	23.8	31.3	40.0	53.3	62.5	66.4	65.1	57.0	44.6	32.4	22.7	43.3
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.4	0.3	5.8	16.3	11.7	3.9	0.2	0.0	0.0	38.6	
MAXIMUM ≤ 32°	30	12.2	8.8	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.9	8.7	33.5	
MINIMUM ≤ 32°	30	28.1	21.9	14.3	3.8	0.1	0.0	0.0	0.0	0.0	2.2	13.5	26.4	110.3	
MINIMUM ≤ 0°	30	4.1	2.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	9.2	
H/C	NORMAL HEATING DEG. DAYS	30	1218	946	691	325	135	7	0	6	56	279	657	1073	5393
	NORMAL COOLING DEG. DAYS	30	0	0	0	10	107	253	419	350	131	18	0	0	1288
RH	NORMAL (PERCENT)	30	69	70	67	63	68	69	67	70	70	67	70	71	68
	HOUR 06 LST	30	72	74	72	68	75	78	75	78	78	73	74	74	74
	HOUR 12 LST	30	76	77	78	77	82	84	84	86	86	80	79	78	81
	HOUR 18 LST	30	63	64	59	55	58	58	57	59	59	56	62	65	60
	HOUR 24 LST	30	64	63	57	52	56	57	54	58	59	59	65	67	59
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)	27	3.0	2.8	2.0	1.1	1.2	0.7	0.6	1.3	1.3	1.4	1.9	3.3	20.6
	THUNDERSTORMS	27	0.4	0.7	2.8	4.8	8.0	9.2	8.0	6.8	5.4	3.0	1.3	0.4	50.8
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1			5.6			4.0							
	MIDNIGHT-MIDNIGHT (OKTAS)	1			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	29.00	28.99	28.90	28.90	28.89	28.89	28.90	28.90	28.99	29.00	29.00	27.92	28.86
	MEAN SEA-LEVEL PRES. (IN)	15	30.14	30.12	30.03	29.95	29.93	29.93	29.97	30.00	30.02	30.05	28.06	28.15	29.70
WINDS	MEAN SPEED (MPH)	26	11.3	11.1	12.4	12.3	10.3	9.9	9.2	8.8	9.5	10.5	11.3	10.9	10.6
	PREVAIL. DIR (TENS OF DEGS)	26	20	32	19	18	18	18	19	18	18	18	18	19	18
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	3	36	39	40	47	43	47	36	30	41	40	37	36	47
	DIR. (TENS OF DEGS)		18	19	20	17	27	19	34	14	14	21	22	33	19
	YEAR OF OCCURRENCE		1997	1997	1998	1998	1996	1998	1996	1997	1996	1996	1998	1997	JUN 1998
	MAXIMUM 5-SECOND:														
SPEED (MPH)	3	44	46	51	57	55	57	48	40	49	52	52	45	57	
DIR. (TENS OF DEGS)		01	19	20	16	27	24	32	29	14	23	33	33	24	
YEAR OF OCCURRENCE		1996	1997	1998	1998	1996	1998	1997	1996	1996	1996	1997	1997	JUN 1998	
PRECIPITATION	NORMAL (IN)	30	1.09	1.10	2.51	3.12	5.04	4.72	4.38	4.01	4.86	3.29	1.92	1.58	37.62
	MAXIMUM MONTHLY (IN)	26	2.66	2.94	9.08	6.98	12.75	9.22	15.47	9.58	11.34	8.15	5.12	5.42	15.47
	YEAR OF OCCURRENCE		1982	1997	1973	1994	1995	1998	1992	1982	1977	1998	1992	1980	JUL 1992
	MINIMUM MONTHLY (IN)	26	0.02	0.20	0.33	1.02	1.05	1.80	0.25	0.75	1.13	0.21	0.03	0.00	0.00
	YEAR OF OCCURRENCE		1986	1991	1994	1980	1992	1988	1975	1984	1974	1988	1996	1996	NOV
	MAXIMUM IN 24 HOURS (IN)	26	1.83	1.85	1.98	4.69	4.26	2.67	5.08	6.19	8.82	4.92	2.15	3.67	8.82
	YEAR OF OCCURRENCE		1982	1997	1992	1975	1974	1976	1986	1982	1977	1973	1998	1980	SEP 1977
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	7.1	7.2	10.3	10.3	11.3	10.3	7.3	8.9	8.1	7.8	7.7	7.6	103.9	
PRECIPITATION ≥ 1.00	30	0.1	0.1	0.4	0.4	1.6	1.2	1.1	1.1	1.5	1.0	0.4	0.4	9.3	
SNOWFALL	NORMAL (IN)	30	5.8	5.2	3.1	0.8	0.0	0.0	0.0	0.0	T	1.2	4.5	20.6	
	MAXIMUM MONTHLY (IN)	26	14.2	15.7	11.4	7.2	T	T	T	0.0	T	6.5	7.1	13.2	15.7
	YEAR OF OCCURRENCE		1977	1993	1978	1983	1990	1994	1992	1992	1992	1996	1975	1983	FEB 1993
	MAXIMUM IN 24 HOURS (IN)	26	9.5	10.8	9.2	4.0	T	T	T	0.0	T	6.5	6.1	10.8	10.8
	YEAR OF OCCURRENCE		1993	1993	1990	1983	1990	1994	1992	1992	1992	1996	1975	1987	FEB 1993
	MAXIMUM SNOW DEPTH (IN)	25	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	2.1	1.8	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.2	6.8	

PRECIPITATION (inches) 1998 INTERNATIONAL AIRPORT, MO (MCI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	1.31	0.49	1.36	4.77	3.89	10.57	10.29	8.70	3.67	6.50	0.08	0.72	52.35
1970	0.21	0.46	1.02	3.95	4.75	5.32	0.62	4.02	10.79	2.30	0.94	1.74	36.12
1971	1.48	0.89	0.87	1.29	3.02	3.20	3.13	1.04	2.70	3.47	1.68	3.82	26.59
1972	0.56	0.41	2.13	3.98	2.18	2.71	3.43	2.90	2.69	2.29	3.00	1.47	27.75
1973	2.05	1.35	9.08	2.91	5.65	2.84	8.71	1.60	10.32	5.80	2.36	2.59	55.26
1974	1.05	1.12	1.18	2.94	10.07	2.16	1.13	4.98	1.13	7.22	1.62	1.52	36.12
1975	2.14	1.59	1.49	6.61	3.45	2.46	0.25	4.85	6.10	0.35	2.75	2.03	34.07
1976	0.53	0.66	2.53	3.30	5.49	5.08	0.77	0.76	1.41	2.84	0.21	0.10	23.68
1977	1.15	0.57	2.59	2.35	5.43	6.18	2.74	7.99	11.34	7.67	1.36	0.37	49.74
1978	0.39	1.32	1.77	5.36	4.98	2.64	5.49	2.66	4.04	0.33	3.93	1.05	33.96
1979	2.35	0.78	2.96	2.35	3.00	5.37	4.68	3.66	1.16	3.56	1.83	0.05	31.75
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	0.03	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
POR= 108 YRS	1.29	1.42	2.55	3.37	4.84	4.76	4.02	3.88	4.32	2.96	1.93	1.40	36.74

WBAN : 03947

AVERAGE TEMPERATURE (°F) 1998 INTERNATIONAL AIRPORT, MO (MCI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	26.5	34.2	37.6	56.3	66.1	70.2	81.4	78.9	71.8	55.7	46.1	33.1	54.8
1970	26.1	36.7	42.0	57.4	72.1	74.5	80.8	82.4	71.6	58.6	44.4	38.9	57.1
1971	27.7	31.5	43.7	59.7	64.4	79.4	76.4	78.3	72.6	64.0	46.9	37.0	56.8
1972	27.3	33.2	47.1	57.4	67.1	76.9	77.2	77.3	70.9	53.9	39.6	27.5	54.6
1973	27.3	33.8	47.7	51.8	61.5	74.5	76.6	77.1	66.7	60.7	45.5	30.1	54.4
1974	23.8	35.3	46.9	56.2	65.6	70.5	82.1	73.0	61.6	57.7	42.8	32.2	54.0
1975	29.9	27.8	36.5	52.8	67.1	74.2	80.9	79.8	63.5	58.9	45.9	34.1	54.3
1976	27.5	42.7	45.0	56.3	60.0	71.3	79.0	77.7	69.0	50.8	35.9	29.0	53.7
1977	15.6	35.1	48.0	59.7	69.0	74.5	79.7	74.4	69.0	55.7	42.3	29.5	54.4
1978	16.8	19.5	37.6	55.5	62.1	74.6	79.3	76.5	73.6	56.4	44.4	31.0	52.3
1979	12.5	20.9	42.2	51.6	63.5	72.2	75.9	75.7	68.6	57.7	40.7	35.2	51.4
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
POR= 109 YRS	29.0	32.9	43.3	55.2	65.1	74.4	79.3	77.7	69.6	58.5	44.1	33.1	55.2

HEATING DEGREE DAYS (base 65°F) 1998 INTERNATIONAL AIRPORT, MO (MCI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1969-70	0	0	3	330	562	984	1198	785	707	280	26	22	4897
1970-71	0	0	25	231	610	801	1151	931	659	208	92	0	4708
1971-72	4	0	57	87	538	863	1163	920	557	263	71	0	4523
1972-73	1	0	37	355	751	1155	1160	868	529	394	127	0	5377
1973-74	0	0	53	173	578	1077	1272	823	559	270	84	6	4895
1974-75	0	6	141	227	660	1009	1084	1036	878	381	42	5	5469
1975-76	0	0	142	226	567	954	1155	640	616	277	178	6	4761
1976-77	0	0	45	469	865	1108	1527	832	521	192	22	0	5581
1977-78	0	0	21	293	673	1094	1487	1266	848	291	172	6	6151
1978-79	0	0	28	272	618	1050	1624	1230	698	400	115	5	6040
1979-80	5	5	35	247	720	918	1118	1148	809	327	98	3	5433
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-	0	0	9	213	505	930							

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COOLING DEGREE DAYS (base 65°F) 1998 INTERNATIONAL AIRPORT, MO (MCI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1969	0	0	0	4	126	188	513	435	216	52	0	0	1534
1970	0	0	0	58	250	317	493	546	232	39	0	0	1935
1971	0	0	5	54	81	437	366	421	295	64	3	0	1726
1972	0	3	7	41	146	368	386	389	219	16	0	0	1575
1973	0	0	0	4	30	291	368	382	110	46	0	0	1231
1974	0	0	4	13	109	176	538	264	47	8	0	0	1159
1975	0	0	0	22	117	284	498	464	105	43	1	0	1534
1976	0	0	0	22	29	199	444	399	169	34	0	0	1296
1977	0	0	0	39	154	291	463	298	147	11	0	0	1403
1978	0	0	5	14	86	300	452	364	295	11	8	0	1535
1979	0	0	1	3	77	229	348	340	147	29	0	0	1174
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

SNOWFALL (inches) 1998 INTERNATIONAL AIRPORT, MO (MCI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1969-70	0.0	0.0	0.0	0.0	0.6	3.8	2.5	2.2	1.0	4.6	0.0	0.0	14.7
1970-71	0.0	0.0	0.0	T	T	3.6	1.3	8.2	7.4	0.0	0.0	0.0	20.5
1971-72	0.0	0.0	0.0	0.0	0.2	1.0	3.0	2.9	3.3	T	0.0	0.0	10.4
1972-73	0.0	0.0	0.0	0.0	3.6	3.1	10.9	0.3	0.0	1.3	0.0	0.0	19.2
1973-74	0.0	0.0	0.0	0.0	T	8.0	4.8	0.3	0.5	0.3	0.0	0.0	13.9
1974-75	0.0	0.0	0.0	0.0	1.4	1.2	5.4	4.6	5.9	2.3	0.0	0.0	20.8
1975-76	0.0	0.0	0.0	0.0	7.1	2.8	5.2	5.2	1.5	0.0	0.0	0.0	21.8
1976-77	0.0	0.0	0.0	T	0.8	0.2	14.2	0.3	T	0.6	0.0	0.0	16.1
1977-78	0.0	0.0	0.0	0.0	T	1.2	3.9	12.7	11.4	0.0	0.0	0.0	29.2
1978-79	0.0	0.0	0.0	0.0	0.2	11.7	13.3	1.5	4.7	2.0	0.0	0.0	33.4
1979-80	0.0	0.0	0.0	0.0	T	T	5.4	12.7	5.4	0.0	0.0	0.0	23.5
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	
1996-97				6.5	4.8	0.5	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-	0.0	0.0	0.0	0.0	0.0	1.4							
POR= 63 YRS	T	0.0	T	T	1.1	4.5	5.6	4.3	3.3	0.9	T	T	19.7

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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 (1961 - 1990). 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.</p>	<p>GENERAL CONTINUED: 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. 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.</p> <p>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.</p>
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1998
INTERNATIONAL AIRPORT,
KANSAS CITY, MISSOURI (MCI)

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.

STATION LOCATION

KANSAS CITY, MISSOURI
INTERNATIONAL AIRPORT

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	NORTH	WEST	ELEVATION ABOVE												* Type	REMARKS
						SEA LEVEL	GROUND												
							WIND	EMER	MEMO	SH	IN	RAI	W	8	H	A	E		
CITY																			
U.S. Customs Building 9th & Walnut Streets	7/1/88	5/1/90	NA	39°06'	94°35'	884	92	86	86	NA	NA	NA	77	NA	NA	NA	Exposure poor because of nearby ventilator, towers & smokestack.		
Rialto Building 9th & Grand Avenue	5/1/90	7/1/07	250 ft. E	39°06'	94°35'	910	95	78	78	NA	81	NA	81	NA	NA	NA	Exposure excellent.		
Scarritt Building 9th & Grand Avenue	7/1/07	5/1/35	100 ft. N	39°06'	94°35'	910	181	161	161	NA	141	NA	141	NA	NA	NA	Exposure fair to good; northerly winds influenced by adjacent bldg. Limited obs. effective 4/21/35.		
New Post Office Bldg. 315 Pershing Road	5/1/35	10/15/39	1.25 mi. SSW	39°05'	94°35'	804	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Limited observational program.		
AIRPORT																			
Post Office Building Municipal Airport	1/1/34	11/2/39	NA	39°07'	94°35'	741	45	33	33	Unk	38	NA	38	NA	NA	NA	Exposure good.		
Administration Building Municipal Airport	11/2/39	1/20/66	100 ft. S	39°07'	94°35'	741	76	39	39	Unk	b30	a32	a31	f4	NA	NA	a - Moved to roof 12/5/49. b - Moved to roof 12/22/49. c - Raised 4/28/55. d - Effective 4/1/58. e - Lowered 12/9/59. f - Commissioned 2000' NW of thermometer site 11/1/63. g - Effective 11/1/63.		
FAA Building Municipal Airport	1/20/66	10/2/72	3000 ft. NW	39°07'	94°36'	742	h22	NA	4	20	4	4	4	h4	NA	NA	h - Not moved 1/20/66.		
FAA Building Municipal Airport + + Downtown Airport effective 4/23/79	10/2/72	Present	Not Moved	39°07'	94°36'	742	22	NA	NA	NA	4	NA	NA	4	NA	NA	Observations by FAA.		
Trailer, SW corner International Airport	10/2/72	4/25/79	13.5 mi. NW	39°17'	94°43'	1014	20	NA	NA	i Unk	NA	4	4	4	NA	NA	NWS moved from Municipal AP. i - Roof site. Height unknown.		
1236 Mexico City Avenue International Airport	4/15/79	Present	2 mi. N	39°19'	94°43'	973	32	4	4	7	4	5	4	j4	NA	NA	j - Type change 10/5/84. S ASOS Commissioned 07/01/95		

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.
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