

1999

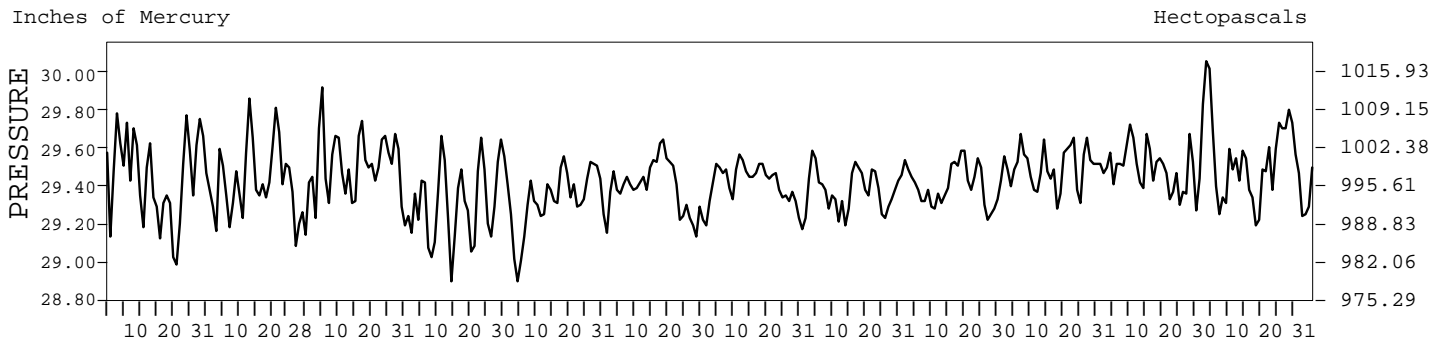
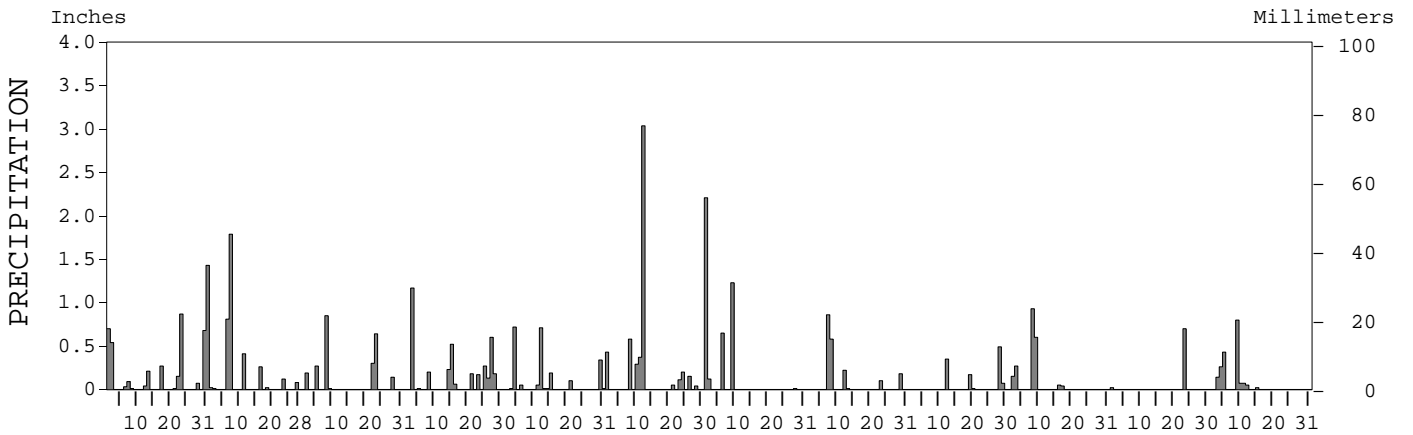
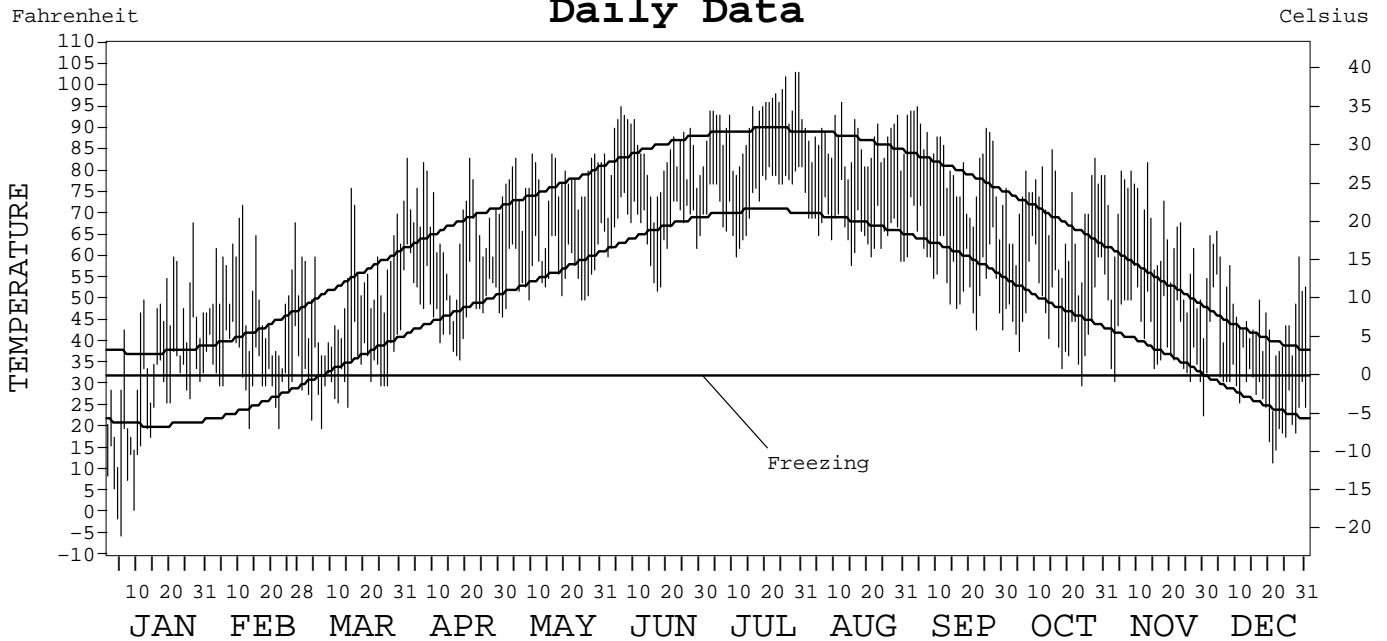
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-2907

ST. LOUIS,
MISSOURI (STL)

Daily Data



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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 1999

ST. LOUIS, MO (STL)

LATITUDE: 38° 45' 09" N LONGITUDE: 90° 22' 25" W ELEVATION (FT): GRND: 562 BARO: 562 TIME ZONE: CENTRAL (UTC + 6) WBAN: 13994

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	39.1	51.4	52.5	67.5	76.9	83.4	92.0	86.4	81.9	70.4	63.8	47.4	67.7	
	HIGHEST DAILY MAXIMUM	68	72	76	83	84	95	103	96	95	85	82	66	103	
	DATE OF OCCURRENCE	27	11	16	21+	29+	06	30+	12	04	15	13	04	JUL 30+	
	MEAN DAILY MINIMUM	23.5	33.5	33.0	49.6	56.7	66.4	73.7	66.6	57.5	47.1	41.4	29.1	48.2	
	LOWEST DAILY MINIMUM	-5	20	20	36	46	52	60	58	43	30	23	12	-5	
	DATE OF OCCURRENCE	05	22+	07	18	01	17	11	15	22	24	30	21	JAN 05	
	AVERAGE DRY BULB	31.3	42.5	42.8	58.6	66.8	74.9	82.9	76.5	69.7	58.8	52.6	38.3	58.0	
	MEAN WET BULB	29.6	38.2	37.1	52.8	59.4	67.8	73.7	67.9	60.0	52.9	47.3	35.2	51.8	
	MEAN DEW POINT	26.7	31.7	28.4	47.5	53.6	63.8	69.4	62.8	52.4	47.6	40.5	30.1	46.2	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	8	23	10	6	0	0	0	0	47
	MAXIMUM ≤ 32°	10	0	0	0	0	0	0	0	0	0	0	1	11	
	MINIMUM ≤ 32°	20	14	15	0	0	0	0	0	0	1	4	24	78	
MINIMUM ≤ 0°	2	0	0	0	0	0	0	0	0	0	0	0	2		
H/C	HEATING DEGREE DAYS	1038	626	679	214	41	7	0	0	41	226	370	826	4068	
	COOLING DEGREE DAYS	0	0	0	28	104	309	563	364	190	37	5	0	1600	
RH	MEAN (PERCENT)	84	67	60	69	65	70	65	64	57	68	65	74	67	
	HOUR 00 LST	86	71	64	73	73	79	73	74	67	75	69	78	74	
	HOUR 06 LST	88	78	72	79	80	81	78	81	76	85	80	81	80	
	HOUR 12 LST	81	61	51	63	53	60	55	52	42	55	54	66	58	
	HOUR 18 LST	82	59	53	62	52	63	55	52	45	60	55	70	59	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	7	1	1	1	0	2	0	0	0	1	0	1	14	
	THUNDERSTORMS	2	2	1	6	2	8	5	5	1	1	0	0	33	
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.)	29.46	29.44	29.51	29.31	29.34	29.40	29.42	29.40	29.42	29.51	29.55	29.49	29.44	
	MEAN SEA-LEVEL PRESS. (IN.)	30.10	30.06	30.14	29.91		29.98	29.98	29.98	30.00	30.11		30.12		
WINDS	RESULTANT SPEED (MPH)	0.8	1.3	1.7	2.1	2.5	1.6	1.7	0.7	1.2	1.6	2.3	2.1	1.0	
	RES. DIR. (TENS OF DEGS.)	27	20	06	19	24	13	22	05	28	21	23	24	22	
	MEAN SPEED (MPH)	10.2	10.9	10.0	11.5	9.3	8.3	7.9	7.4	7.3	8.0	8.2	9.7	9.1	
	PREVAIL. DIR. (TENS OF DEGS.)	29	17	32	15	16	11	21	09	30	17	22	17	17	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	30	39	28	40	32	38	37	32	25	29	33	30	40	
	DIR. (TENS OF DEGS.)	27	23	33	14	23	26	30	26	22	32	30	25	14	
	DATE OF OCCURRENCE	18	11	02	05	06	10	09	12	11	22	02	15	APR 05	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	38	54	37	47	38	47	48	44	31	37	37	37	54	
DIR. (TENS OF DEGS.)	26	23	31	13	25	13	34	33	24	32	31	32	23		
	DATE OF OCCURRENCE	18	11	02	05	06+	08	06	12	11	22	02	26+	FEB 11	
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	5.10	3.52	2.40	3.72	2.20	5.26	4.22	1.95	1.09	2.04	0.72	1.84	34.06	
	GREATEST 24-HOUR (IN.)	2.11	2.60	0.94	1.17	0.72	3.32	2.21	1.44	0.56	0.93	0.70	0.87	3.32	
	DATE OF OCCURRENCE	30-31	06-07	22-23	03	04	11-12	01	07-08	28-29	08	23	09-10	JUN 11-12	
	NUMBER OF DAYS WITH:														
PRECIPITATION ≥ 0.01	14	9	7	12	11	10	5	6	5	6	2	8	95		
PRECIPITATION ≥ 0.10	8	5	6	10	5	8	4	5	3	4	1	4	63		
PRECIPITATION ≥ 1.00	1	1	0	1	0	1	2	0	0	0	0	0	6		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	12.0	1.5	0.5	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	14.3	
	GREATEST 24-HOUR (IN.)	5.1	1.4	0.5	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.1	
	DATE OF OCCURRENCE	01	23	08	17+								27+	JAN 01	
	MAXIMUM SNOW DEPTH (IN.)	8	T	0	0	0	0	0	0	0	0	0	T	8	
	DATE OF OCCURRENCE	11+	24+										28+	JAN 11+	
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	4	1	0	0	0	0	0	0	0	0	0	0	5		

NORMALS, MEANS, AND EXTREMES

ST. LOUIS, MO (STL)

LATITUDE: 38° 45' 09" N LONGITUDE: 90° 22' 25" W ELEVATION (FT): GRND: 562 BARO: 562 TIME ZONE: CENTRAL (UTC + 6) WBAN: 13994

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	37.7	42.6	54.6	66.9	76.1	85.2	89.3	87.3	79.9	68.5	54.7	41.7	65.4
	MEAN DAILY MAXIMUM	54	38.5	43.9	54.0	66.7	76.1	85.2	89.0	87.4	80.1	69.1	54.2	42.8	65.6
	HIGHEST DAILY MAXIMUM	42	76	85	89	93	94	102	107	107	104	94	85	76	107
	YEAR OF OCCURRENCE		1970	1972	1985	1989	1996	1988	1980	1984	1984	1963	1989	1970	AUG 1984
	MEAN OF EXTREME MAXS.	54	63.6	68.4	79.2	86.5	89.3	95.5	98.7	98.2	93.4	86.1	74.9	66.5	83.4
	NORMAL DAILY MINIMUM	30	20.8	25.1	35.5	46.4	56.0	65.7	70.4	67.9	60.5	48.3	37.7	26.0	46.7
	MEAN DAILY MINIMUM	54	21.6	25.8	34.3	45.8	55.5	65.2	69.4	67.5	59.4	47.8	36.2	26.4	46.2
	LOWEST DAILY MINIMUM	42	-18	-12	-5	22	31	43	51	47	36	23	1	-16	-18
	YEAR OF OCCURRENCE		1985	1996	1960	1975	1976	1969	1972	1986	1974	1976	1964	1989	JAN 1985
	MEAN OF EXTREME MINS.	54	0.0	6.2	15.9	29.9	40.3	52.0	58.3	56.1	43.8	32.6	19.0	6.5	30.1
	NORMAL DRY BULB	30	29.3	33.9	45.1	56.7	66.1	75.4	79.8	77.6	70.2	58.4	46.2	33.9	56.1
	MEAN DRY BULB	54	30.0	34.9	44.2	56.2	65.8	75.2	79.2	77.5	69.8	58.5	45.1	34.6	55.9
	MEAN WET BULB	15	28.4	32.5	40.1	49.6	59.3	67.7	71.3	69.9	62.4	52.3	41.4	32.3	50.6
	MEAN DEW POINT	15	22.5	25.8	32.6	42.2	53.0	62.8	66.8	65.5	57.1	45.9	35.0	26.6	44.6
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.4	1.3	8.0	15.1	11.6	4.4	0.2	0.0	0.0	41.0	
MAXIMUM ≤ 32°	30	11.4	7.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	7.0	27.3	
MINIMUM ≤ 32°	30	26.7	21.3	13.5	2.8	0.1	0.0	0.0	0.0	0.0	1.7	11.0	23.3	100.4	
MINIMUM ≤ 0°	30	2.3	0.5	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.9	
H/C	NORMAL HEATING DEG. DAYS	30	1107	871	617	266	111	0	0	0	21	237	564	964	4758
	NORMAL COOLING DEG. DAYS	30	0	0	0	17	145	312	459	391	177	33	0	0	1534
RH	NORMAL (PERCENT)	30	73	72	68	64	66	67	68	70	72	69	72	76	70
	HOUR 00 LST	30	77	77	74	70	75	76	77	80	81	76	77	79	77
	HOUR 06 LST	30	82	82	81	78	82	83	85	88	89	84	83	83	83
	HOUR 12 LST	30	65	64	59	54	55	56	56	57	58	56	63	68	59
	HOUR 18 LST	30	68	66	59	53	55	55	55	56	58	60	67	73	61
S	PERCENT POSSIBLE SUNSHINE	37	50	52	54	56	59	66	69	64	63	60	46	43	57
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	42	2.3	1.6	1.5	0.6	0.6	0.3	0.2	0.3	0.5	0.7	1.1	2.0	11.7
	THUNDERSTORMS	42	0.8	0.8	3.1	5.7	6.7	7.4	7.1	6.4	3.6	2.5	1.7	0.6	46.4
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	48	5.4	5.3	5.4	5.2	5.1	4.8	4.4	4.2	4.1	4.0	4.9	5.3	4.8
	MIDNIGHT-MIDNIGHT (OKTAS)	32	5.0	5.1	5.1	4.9	4.7	4.3	3.8	3.8	3.9	3.9	4.8	5.1	4.5
	MEAN NO. DAYS WITH:														
CLEAR	48	7.3	6.6	6.5	6.9	7.1	7.1	9.3	10.1	11.4	12.3	8.6	7.1	100.3	
PARTLY CLOUDY	48	6.6	6.5	8.0	8.2	9.5	11.0	11.3	11.1	8.2	7.5	6.6	6.6	101.1	
CLOUDY	48	17.1	15.1	16.5	14.9	14.4	11.9	10.4	9.8	10.4	11.2	14.9	17.3	163.9	
PR	MEAN STATION PRESSURE (IN)	27	29.53	29.50	29.40	29.37	29.36	29.37	29.40	29.43	29.46	29.47	29.47	29.52	29.44
	MEAN SEA-LEVEL PRES. (IN)	15	30.14	30.11	30.04	29.95	29.95	29.94	29.98	30.01	30.03	30.07	30.08	30.15	30.04
WINDS	MEAN SPEED (MPH)	49	10.5	10.7	11.7	11.3	9.4	8.7	7.9	7.4	8.1	8.7	10.2	10.3	9.6
	PREVAIL. DIR (TENS OF DEGS)	30	30	30	30	30	18	18	18	18	18	15	30	30	30
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	3	36	39	37	44	38	38	37	32	30	29	41	38	44
	DIR. (TENS OF DEGS)		31	23	26	25	23	26	30	26	32	32	24	31	25
	YEAR OF OCCURRENCE		1997	1999	1998	1997	1998	1999	1999	1999	1997	1999	1998	1998	APR 1997
	MAXIMUM 5-SECOND:														
SPEED (MPH)	3	40	54	47	59	51	47	48	44	36	39	53	44	59	
DIR. (TENS OF DEGS)		31	23	26	27	23	13	34	33	32	17	24	31	27	
YEAR OF OCCURRENCE		1997	1999	1998	1998	1998	1999	1999	1999	1997	1997	1998	1998	APR 1998	
PRECIPITATION	NORMAL (IN)	30	1.81	2.12	3.58	3.50	3.97	3.72	3.85	2.85	3.12	2.68	3.28	3.03	37.51
	MAXIMUM MONTHLY (IN)	42	5.38	4.68	6.67	10.32	12.92	9.43	10.71	6.44	9.16	7.12	9.95	7.82	12.92
	YEAR OF OCCURRENCE		1975	1986	1978	1994	1995	1985	1981	1970	1993	1984	1985	1982	MAY 1995
	MINIMUM MONTHLY (IN)	42	0.10	0.25	1.09	0.99	1.02	0.44	0.60	0.08	T	0.21	0.44	0.32	T
	YEAR OF OCCURRENCE		1986	1963	1966	1977	1972	1991	1970	1971	1979	1975	1969	1958	SEP 1979
	MAXIMUM IN 24 HOURS (IN)	42	2.43	2.60	2.95	4.91	6.55	3.32	3.47	3.17	3.50	2.70	3.71	4.03	6.55
	YEAR OF OCCURRENCE		1975	1999	1977	1979	1995	1999	1982	1993	1986	1986	1985	1982	MAY 1995
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	8.4	8.4	11.4	11.2	10.5	9.5	8.5	7.9	7.9	8.4	9.5	9.7	111.3	
PRECIPITATION ≥ 1.00	30	0.3	0.4	0.6	0.6	1.1	1.1	1.2	0.8	0.8	0.6	0.9	0.8	9.2	
SNOWFALL	NORMAL (IN)	30	6.5	5.3	3.7	0.6	0.0	0.0	0.0	0.0	T	1.5	4.6	22.2	
	MAXIMUM MONTHLY (IN)	63	23.9	20.8	22.3	6.5	0.6	T	T	0.0	0.0	T	11.3	26.3	26.3
	YEAR OF OCCURRENCE		1977	1993	1960	1971	1993	1993	1997			1993	1951	1973	DEC 1973
	MAXIMUM IN 24 HOURS (IN)	63	13.9	11.7	10.7	6.1	0.6	T	T	0.0	0.0	T	10.3	12.0	13.9
	YEAR OF OCCURRENCE		1982	1993	1989	1971	1993	1993	1997			1993	1951	1973	JAN 1982
	MAXIMUM SNOW DEPTH (IN)	51	13	20	17	6	0	0	0	0	0	0	10	12	20
	YEAR OF OCCURRENCE		1978	1982	1978	1971							1951	1973	FEB 1982
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	1.9	1.5	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.4	6.2	

PRECIPITATION (inches) 1999 ST. LOUIS, MO (STL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0.22	0.64	2.17	9.09	2.04	5.08	0.60	6.44	5.54	2.21	0.77	1.40	36.20
1971	0.66	3.08	1.81	1.65	5.66	2.43	4.70	0.08	3.98	1.51	1.67	6.50	33.73
1972	0.77	0.74	2.93	4.49	1.02	1.19	3.10	2.69	6.21	1.47	5.59	3.54	33.74
1973	1.40	1.04	5.81	4.25	3.92	4.23	2.85	2.46	3.52	2.33	3.65	4.36	39.82
1974	3.51	4.17	2.58	2.40	5.90	3.45	0.90	5.05	2.50	1.51	3.15	1.71	36.83
1975	5.38	3.59	4.08	4.56	3.23	3.78	2.56	5.44	2.48	0.21	2.62	2.28	40.21
1976	0.83	1.08	4.28	1.37	3.90	2.32	2.28	1.27	0.90	3.37	0.73	1.13	23.46
1977	2.38	2.47	6.28	0.99	2.13	5.47	4.28	5.34	3.64	3.76	4.33	2.34	43.41
1978	1.70	1.60	6.67	3.21	3.69	2.39	6.03	0.76	3.10	2.28	4.47	1.81	37.71
1979	1.95	1.48	3.63	7.47	1.62	1.67	3.67	2.26	T	1.81	2.07	1.85	29.48
1980	0.63	1.54	3.98	1.54	3.40	2.19	3.56	2.72	3.12	2.89	1.25	0.66	27.48
1981	0.64	2.18	2.97	3.40	6.79	5.82	10.71	3.31	1.17	3.81	2.71	2.01	45.52
1982	4.90	1.37	2.88	2.55	4.85	5.96	7.91	5.27	5.27	2.30	3.89	7.82	54.97
1983	0.72	0.95	3.54	7.30	6.32	4.32	1.23	2.24	1.24	5.40	7.79	3.75	44.80
1984	0.84	3.43	5.37	6.29	5.19	2.74	0.76	0.64	8.88	7.12	5.50	4.89	51.65
1985	0.53	3.77	5.18	3.60	3.30	9.43	5.23	3.66	0.43	1.96	9.95	3.69	50.73
1986	0.10	4.68	1.22	1.23	2.42	4.43	2.61	2.22	7.99	5.34	1.58	1.06	34.88
1987	1.98	1.40	2.16	1.74	2.00	3.59	5.04	5.56	1.62	1.74	4.09	7.46	38.38
1988	3.30	2.27	4.73	1.15	1.44	1.97	3.02	2.31	1.99	1.86	6.65	3.24	33.93
1989	2.58	1.43	4.53	2.10	4.11	2.34	4.59	3.00	1.69	0.95	0.59	0.69	28.60
1990	1.42	3.53	2.66	3.07	9.59	3.02	3.34	2.84	0.78	4.96	3.36	6.52	45.09
1991	1.52	0.98	3.20	3.27	3.87	0.44	5.18	0.98	2.98	5.70	3.26	2.10	33.48
1992	1.12	1.89	3.45	2.46	1.45	1.19	4.31	3.45	2.98	1.21	6.32	3.66	33.49
1993	3.54	2.75	3.31	6.16	3.94	7.12	5.06	4.78	9.16	2.61	4.85	1.48	54.76
1994	2.09	1.51	1.27	10.32	1.72	2.16	1.42	3.76	1.18	2.85	4.90	1.52	34.70
1995	4.39	1.33	3.19	3.33	12.92	2.96	2.16	4.52	0.74	2.01	1.28	2.85	41.68
1996	3.27	0.52	3.06	7.97	4.34	3.72	6.33	1.57	2.86	2.67	6.50	0.86	43.67
1997	2.74	4.14	2.85	2.66	3.05	2.00	1.44	3.36	2.73	2.05	2.36	1.85	31.23
1998	2.88	2.93	6.00	4.63	3.62	6.90	6.39	2.35	1.86	2.51	2.72	0.83	43.62
1999	5.10	3.52	2.40	3.72	2.20	5.26	4.22	1.95	1.09	2.04	0.72	1.84	34.06
POR= 129 YRS	2.20	2.29	3.34	3.76	4.12	4.02	3.43	2.88	3.07	2.68	2.81	2.28	36.88

WBAN : 13994

AVERAGE TEMPERATURE (°F) 1999 ST. LOUIS, MO (STL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	24.8	33.0	40.6	58.0	69.3	72.3	77.9	76.3	71.8	56.1	43.6	37.0	55.1
1971	27.4	33.9	41.7	55.9	62.3	78.9	75.4	75.7	72.5	63.7	46.0	40.6	56.2
1972	29.9	34.3	45.0	56.1	66.4	73.4	77.5	76.3	71.1	54.8	39.8	30.4	54.6
1973	32.6	34.5	50.9	53.7	61.7	74.6	78.7	76.9	70.0	60.7	47.0	30.0	55.9
1974	29.8	36.1	48.1	57.5	65.0	69.5	79.8	74.5	62.3	57.8	44.0	34.0	54.9
1975	33.2	32.0	39.0	53.4	67.6	74.9	77.8	77.9	64.7	59.0	48.3	35.5	55.3
1976	28.1	43.5	48.8	56.5	60.8	72.7	79.5	74.3	68.2	50.9	37.0	28.5	54.1
1977	15.1	34.8	49.6	60.8	71.1	74.7	81.2	76.4	70.7	55.5	44.7	30.6	55.4
1978	19.6	21.1	37.9	56.2	63.6	74.4	78.5	76.4	73.1	55.6	47.5	35.0	53.2
1979	16.6	23.1	44.1	52.9	65.5	76.5	79.2	78.4	70.8	59.2	44.5	38.7	54.1
1980	31.4	27.9	41.0	54.5	66.9	75.5	85.0	83.5	72.5	55.9	46.4	36.6	56.4
1981	31.2	36.8	46.7	63.1	60.7	75.7	78.7	76.1	69.2	55.7	48.7	31.1	56.1
1982	22.5	28.6	45.3	51.5	70.7	70.6	79.3	75.2	68.0	58.3	46.3	41.6	54.8
1983	32.3	38.1	44.5	50.3	62.3	75.3	83.5	84.2	72.0	59.7	48.2	20.5	55.9
1984	28.3	40.4	37.1	54.1	63.2	79.5	78.3	80.7	68.2	61.8	44.3	40.7	56.4
1985	22.6	30.5	49.5	60.4	67.6	71.6	79.3	74.7	70.9	61.4	46.5	27.3	55.2
1986	34.9	34.5	49.2	60.8	68.2	78.3	82.8	74.0	73.3	58.3	41.5	35.4	57.6
1987	30.6	40.1	48.6	56.9	72.6	77.9	81.0	78.9	70.5	53.8	49.1	38.0	58.2
1988	29.2	30.5	45.2	57.1	69.0	77.7	81.6	82.7	72.5	53.9	47.2	37.2	57.0
1989	41.2	28.2	45.0	57.7	64.3	74.8	79.3	77.8	67.4	61.3	47.1	24.1	55.7
1990	42.9	41.3	49.8	55.7	63.6	77.2	80.2	77.9	74.1	58.1	52.7	34.7	59.0
1991	29.3	41.7	50.1	61.5	73.0	79.9	80.9	79.7	72.4	60.5	42.4	39.2	59.2
1992	37.0	42.7	48.5	57.8	65.1	73.8	79.0	73.4	69.2	59.4	44.3	35.7	57.2
1993	32.1	31.7	41.5	54.2	66.4	75.1	81.9	80.4	66.4	56.1	43.9	37.2	55.6
1994	26.8	35.0	47.7	57.7	65.0	79.0	79.5	76.6	70.2	61.5	52.1	41.5	57.7
1995	31.1	36.4	49.0	56.8	64.7	75.6	81.3	83.9	68.0	60.9	42.7	33.8	57.0
1996	29.4	37.5	41.0	54.6	68.6	74.6	75.8	77.6	67.2	58.1	39.0	35.5	54.9
1997	26.7	38.1	47.6	50.9	61.7	73.6	80.2	76.0	70.2	59.1	42.0	35.1	55.1
1998	36.4	42.6	43.2	55.3	71.2	75.5	78.9	79.1	75.0	60.2	49.5	37.2	58.7
1999	31.3	42.5	42.8	58.6	66.8	74.9	82.9	76.5	69.7	58.8	52.6	38.3	58.0
POR= 126 YRS	31.2	34.9	44.5	56.1	66.0	75.2	79.5	77.6	70.1	58.8	45.4	35.1	56.2

HEATING DEGREE DAYS (base 65°F) 1999 ST. LOUIS, MO (STL)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0	0	24	287	635	863	1159	866	718	303	122	0	4977
1971-72	0	0	47	97	574	751	1081	884	619	295	80	10	4438
1972-73	2	0	29	317	751	1069	997	849	430	348	121	0	4913
1973-74	0	0	31	182	538	1077	1083	804	539	253	101	21	4629
1974-75	0	0	127	242	625	954	979	919	803	353	48	1	5051
1975-76	2	0	110	228	498	910	1137	619	505	288	158	0	4455
1976-77	0	0	24	456	832	1125	1541	839	471	190	36	3	5517
1977-78	0	0	11	291	601	1059	1401	1223	840	275	158	5	5864
1978-79	0	0	24	292	528	923	1496	1167	644	364	80	0	5518
1979-80	0	0	16	223	610	810	1035	1071	740	331	54	0	4890
1980-81	0	0	30	305	553	877	1039	784	569	127	168	0	4452
1981-82	0	0	35	298	483	1048	1308	1015	603	407	9	11	5217
1982-83	0	0	49	261	569	721	1008	745	632	437	117	7	4546
1983-84	0	0	58	192	498	1376	1133	705	860	342	115	0	5279
1984-85	0	0	103	151	616	746	1308	960	487	200	42	10	4623
1985-86	0	0	64	145	550	1159	929	850	506	194	44	0	4441
1986-87	0	11	12	221	699	910	1062	691	501	267	10	0	4384
1987-88	0	0	12	346	490	830	1102	995	610	241	17	3	4646
1988-89	0	0	5	354	528	854	730	1029	625	293	128	4	4550
1989-90	0	0	73	183	536	1261	679	657	496	327	85	9	4306
1990-91	3	0	24	250	375	934	1101	648	474	154	21	0	3984
1991-92	0	0	67	191	674	796	859	642	509	264	95	5	4102
1992-93	0	3	46	204	615	902	1014	927	726	327	52	13	4829
1993-94	0	0	58	292	628	852	1179	833	531	261	84	1	4719
1994-95	0	0	33	155	388	722	1045	794	488	260	88	0	3973
1995-96	0	0	65	167	664	961	1096	797	735	322	67	14	4888
1996-97	0	0	57	235	776	908	1180	746	530	418	142	5	4997
1997-98	0	0	13	271	684	922	880	621	689	293	19	24	4416
1998-99	0	0	1	175	460	859	1038	626	679	214	41	7	4100
1999-	0	0	41	226	370	826							

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COOLING DEGREE DAYS (base 65°F) 1999 ST. LOUIS, MO (STL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	54	195	247	410	360	236	17	0	0	1519
1971	0	0	2	35	45	427	326	340	279	62	10	0	1526
1972	0	0	5	35	129	268	394	358	219	9	0	0	1417
1973	0	0	1	17	25	294	435	375	187	57	4	0	1395
1974	0	0	24	36	109	164	463	300	52	25	2	0	1175
1975	0	0	2	12	133	308	405	406	110	51	4	0	1431
1976	0	0	8	38	34	239	458	298	129	25	0	0	1229
1977	0	0	2	69	231	302	509	360	190	4	0	0	1667
1978	0	0	7	17	120	295	426	360	276	10	8	0	1519
1979	0	0	2	9	102	354	446	420	195	50	0	0	1578
1980	0	0	0	23	120	320	626	580	262	31	2	0	1964
1981	0	0	7	77	42	327	431	353	166	13	1	0	1417
1982	0	0	0	7	191	186	453	322	146	63	15	4	1387
1983	0	0	3	3	41	322	578	603	274	36	2	0	1862
1984	0	0	0	24	67	442	423	493	202	57	2	1	1711
1985	0	0	14	70	128	214	451	310	245	43	2	0	1477
1986	0	0	25	75	150	407	561	298	267	21	0	0	1804
1987	0	0	0	32	251	393	501	439	183	5	20	0	1824
1988	0	0	4	10	144	389	521	556	238	16	0	0	1878
1989	0	0	11	80	111	305	450	403	151	75	6	0	1592
1990	0	0	30	55	47	382	480	408	304	41	12	0	1759
1991	0	0	19	56	277	452	498	463	295	58	3	0	2121
1992	0	0	7	54	104	277	440	268	182	36	0	0	1368
1993	0	0	1	9	102	320	529	483	107	23	0	0	1574
1994	0	0	4	48	90	428	453	365	194	53	7	0	1642
1995	0	0	0	22	85	322	510	595	164	47	0	0	1745
1996	0	5	0	16	188	309	342	402	132	25	0	0	1419
1997	0	0	1	1	44	268	477	349	173	99	0	0	1412
1998	0	0	21	7	217	347	439	446	305	33	2	3	1820
1999	0	0	0	28	104	309	563	364	190	37	5	0	1600

SNOWFALL (inches) 1999 ST. LOUIS, MO (STL)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.0	T	0.9	0.4	1.4	0.2	6.5	0.0	0.0	9.4
1971-72	0.0	0.0	0.0	0.0	1.3	0.0	4.1	1.9	0.3	T	0.0	0.0	7.6
1972-73	0.0	0.0	0.0	0.0	5.2	1.0	2.2	3.0	0.2	0.2	0.0	0.0	11.8
1973-74	0.0	0.0	0.0	0.0	0.0	26.3	4.2	4.5	7.4	0.0	0.0	0.0	42.4
1974-75	0.0	0.0	0.0	0.0	1.2	1.5	4.1	12.1	6.3	T	0.0	0.0	25.2
1975-76	0.0	0.0	0.0	0.0	7.6	3.9	4.5	4.5	4.8	0.0	0.0	0.0	25.3
1976-77	0.0	0.0	0.0	0.0	0.3	5.2	23.9	6.7	0.1	0.1	0.0	0.0	36.3
1977-78	0.0	0.0	0.0	0.0	6.7	11.7	22.9	9.3	15.4	0.0	0.0	0.0	66.0
1978-79	0.0	0.0	0.0	0.0	0.0	1.4	18.4	4.8	2.0	0.0	0.0	0.0	26.6
1979-80	0.0	0.0	0.0	0.0	0.3	T	4.2	7.4	8.7	5.0	0.0	0.0	25.6
1980-81	0.0	0.0	0.0	0.0	8.0	1.1	0.6	8.2	0.2	0.0	0.0	0.0	18.1
1981-82	0.0	0.0	0.0	0.0	T	7.9	16.6	9.0	0.4	2.7	0.0	0.0	36.6
1982-83	0.0	0.0	0.0	0.0	T	T	3.3	0.3	1.4	2.4	0.0	0.0	7.4
1983-84	0.0	0.0	0.0	0.0	T	6.5	2.3	9.9	5.2	0.0	0.0	0.0	23.9
1984-85	0.0	0.0	0.0	0.0	1.7	1.8	5.1	1.3	T	0.0	0.0	0.0	9.9
1985-86	0.0	0.0	0.0	0.0	T	5.7	1.0	6.1	0.2	T	0.0	0.0	13.0
1986-87	0.0	0.0	0.0	0.0	T	T	23.6	0.6	T	0.0	0.0	0.0	24.2
1987-88	0.0	0.0	0.0	0.0	T	7.3	1.4	6.7	2.8	0.0	0.0	0.0	18.2
1988-89	0.0	0.0	0.0	0.0	2.9	5.9	0.1	3.9	11.0	0.0	0.0	0.0	23.8
1989-90	0.0	0.0	0.0	T	T	9.1	0.2	6.9	8.4	T	T	T	24.6
1990-91	0.0	0.0	0.0	0.0	T	13.2	1.9	T	1.7	0.0	0.0	0.0	16.8
1991-92	0.0	0.0	0.0	T	3.9	0.4	3.8	2.3	3.1	0.0	0.0	0.0	13.5
1992-93	0.0	0.0	0.0	0.0	T	0.7	5.5	20.8	3.0	0.3	0.6	T	30.9
1993-94	0.0	0.0	0.0	T	1.6	1.1	5.0	1.0	0.2	1.4	0.0	0.0	10.3
1994-95	0.0	0.0	0.0	0.0	0.0	0.1	3.5	1.6	0.5	T	0.0	0.0	5.7
1995-96	0.0	0.0	0.0	0.0	0.9	7.9	13.4	2.8	1.0	T	0.0	0.0	26.0
1996-97	T	0.0	0.0	T	1.5	1.5	13.1	0.8	T	4.2	0.0	0.0	
1997-98	T	0.0	0.0	0.0	2.6	4.1	5.7	0.5	5.9	T	0.2	0.0	19.0
1998-99	0.0	0.0	0.0	0.0	0.0	1.8	12.0	1.5	0.5	T	0.0	0.0	15.8
1999-	0.0	0.0	0.0	0.0	0.0	0.3							
POR= 62 YRS	0.0	0.0	0.0	T	1.4	3.7	5.5	4.2	3.8	0.5	T	T	19.1

WBAN : 13994

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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1999
ST. LOUIS,
MISSOURI (STL)

Saint Louis is located at the confluence of the Missouri and Mississippi Rivers and near the geographical center of the United States. Thus, with a somewhat modified continental climate, it is in the enviable position of being able to enjoy the changes of a four-season climate without the undue hardship of prolonged periods of extreme heat or high humidity. To the south is the warm, moist air of the Gulf of Mexico, and to the north, in Canada, is a favored region of cold air masses. The alternate invasion of Saint Louis by air masses from these sources, and the conflict along the frontal zones where they come together, produce a variety of weather conditions, none of which are likely to persist to the point of monotony.

Winters are brisk and stimulating, seldom severe. Records since 1870 show that temperatures drop to zero or below an average of two or three days per year. Temperatures remain as cold as 32 degrees or lower less than 25 days in most years. Snowfall has averaged a little over 18 inches per winter season. Snowfall of an inch or more is received on five to ten days in most years.

The long-term record for Saint Louis (since 1870) indicates that temperatures of 90 degrees or higher occur on about 35-40 days a year. Extremely hot days of 100 degrees or more are expected on no more than five days per year.

Normal annual precipitation for the Saint Louis area, is a little less than 34 inches. The three winter months are the driest, with an average total of about 6 inches of precipitation. The spring months of March through May are normally the wettest with normal total precipitation of just under 10 1/2 inches. It is not unusual to have extended dry periods of one to two weeks during the growing season.

Thunderstorms occur normally on between 40 and 50 days per year. During any year, there are usually a few of these that can be classified as severe storms with hail and damaging winds. Tornadoes have produced extensive damage and loss of life in the Saint Louis area.

STATION LOCATION

SAINT LOUIS, MISSOURI

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATED STATION	* Type	REMARKS
						SEA LEVEL	GROUND											
							WIND	TEMP	PRECIP	REL HUM	WIND DIR	WIND SPC	WIND GAG	WIND HCH	WIND RAN			
CITY - - NOTE: For period 1852 through August 15, 1903, refer to previous editions.																		
Chemical Building 8th & Olive Streets	8/16/03	9/30/13	250' E	38° 38'	90° 12'	467	217	208	208			199		199				
Railway Exchange Bldg. 7th & Olive Streets	9/30/13	11/26/35	300' E	38° 38'	90° 12'	473	303	265	265			258		258				
1010 New Federal Bldg. 12th & Market Streets	11/27/35	12/31/68	2150' SW	38° 38'	90° 12'	465	303	179	179			172	172	172			d - Decommissioned 7/18/58.	
COOPERATIVE Jefferson National Expansion Memorial	6/26/68	Present	NA	38° 37'	90° 11'	435			6					4	3			
AIRPORT National Guard Building Lambert Field	7/16/29	10/10/29	NA	38° 45'	90° 23'				5	5					4			
Control Building Lambert Field	10/11/29	4/19/39	300' SW	38° 45'	90° 23'	552	30	5	5					e19	4		e - Effective 3/28/33. f - Effective 4/20/37.	
Administration Building Second Floor Lambert Field	4/20/39	3/9/59	200' NE	38° 45'	90° 23'	552	82	h3	h3			3	37	g3	4	n	g - Effective 11/10/43. h - Effective 8/7/57. i - Effective 9/15/57. j - Effective 9/25/57. k - Effective 9/25/57.	
Administration Building First Floor Lambert Field+	3/9/59	1/11/78	NA	38° 45'	90° 23'	560	82	6	4	Unk		3	5	3	n4		m - Effective 1/22/60. n - Telesychrometer (6') 4/18/58-12/3/60. Hygro. comm. 12/3/60.	
+St. Louis Int'l AP effective 1971																		
6185 Aviation Drive International Airport	1/11/78	06/01/96	app. 72 ft. SW	38° 45'	90° 22'	535	r20	6	4	7		3	20	r4	3	NA	r - Not moved 1/11/78. s - Moved to field site 5/10/78. Station type changed from WSMO to WSCMO 8/1979. t - Moved to new site 11/19/79. u - Type change 3/23/85. v - Minor move 3/23/85.	
International Aiprot	06/01/96	Present	NA	38°45'	90°22'	562										S	ASOS Commissioned 06/01/96	

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.
INQUIRIES/COMMENTS CALL: (828) 271-4800

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