

2003

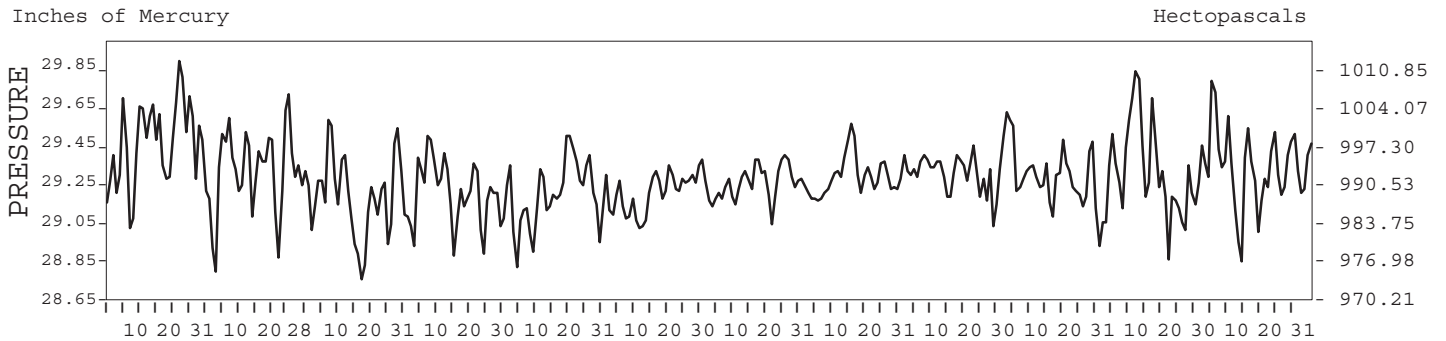
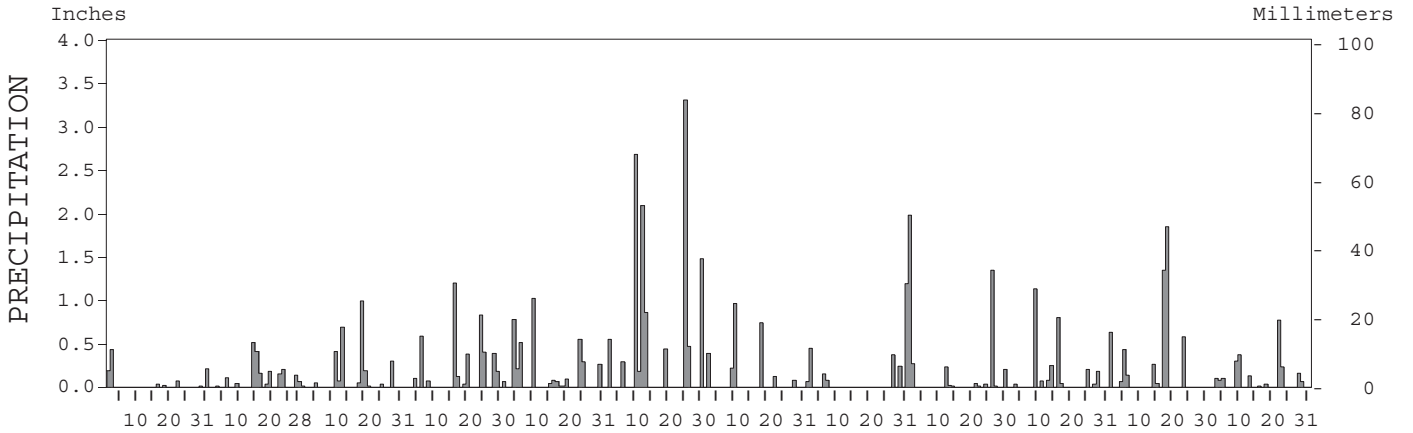
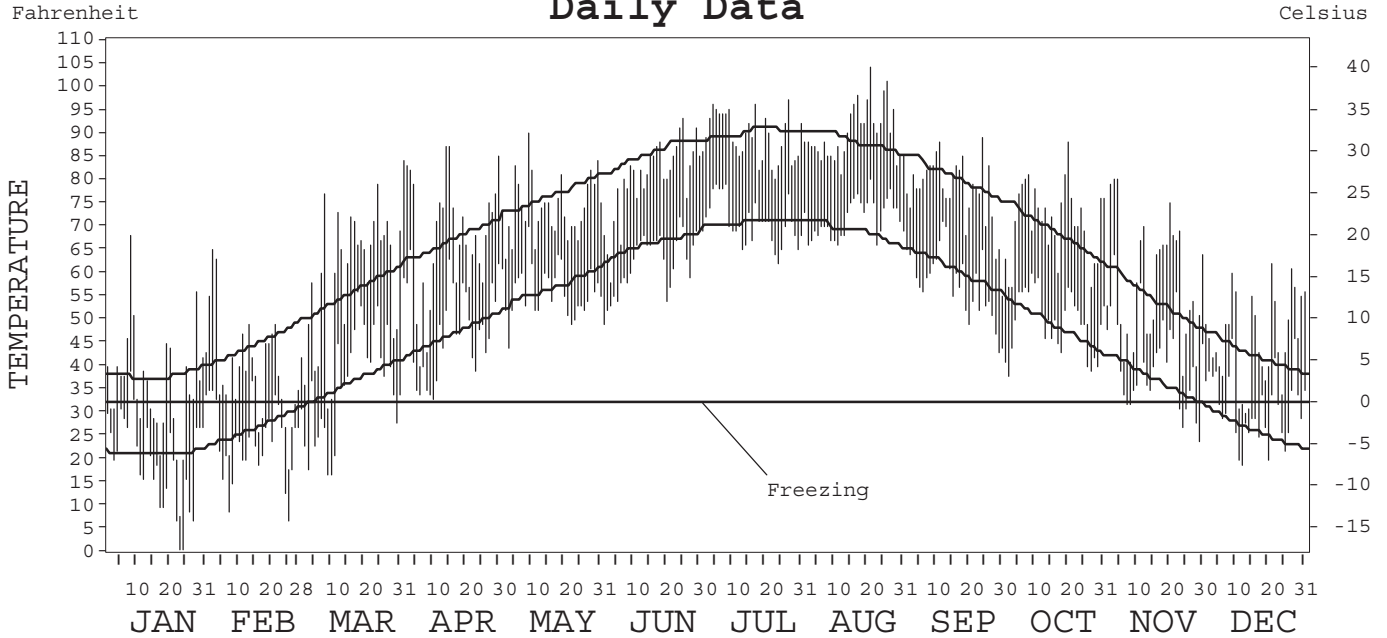
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-2907

ST. LOUIS,
MISSOURI (STL)

Daily Data



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METEOROLOGICAL DATA FOR 2003

ST LOUIS, MO (STL)

LATITUDE: 38° 45' 09" N LONGITUDE: 90° 22' 25" W ELEVATION (FT.): GRND: 707 BARO: 710 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	35.8	38.9	58.8	68.3	74.1	80.3	89.1	90.0	77.5	70.4	57.9	45.9	65.6	
	HIGHEST DAILY MAXIMUM	68	65	79	87	90	93	97	104	89	88	80	62	104	
	DATE OF OCCURRENCE	08	02	24	15+	09	25	27	21	24	20	04+	21	AUG 21	
	MEAN DAILY MINIMUM	20.4	23.8	36.2	47.9	56.0	62.2	70.7	71.6	57.9	49.6	40.7	31.4	47.4	
	LOWEST DAILY MINIMUM	1	7	17	33	44	49	62	66	43	38	24	19	1	
	DATE OF OCCURRENCE	24+	25	10+	10	03	01	24	23+	29	02	29	12	JAN 24+	
	AVERAGE DRY BULB	28.1	31.4	47.5	58.1	65.1	71.3	79.9	80.8	67.7	60.0	49.3	38.7	56.5	
	MEAN WET BULB	25.0	29.0	41.9	52.3	60.6	64.4	72.0	73.2	61.8	54.3	45.6	35.5	51.3	
	MEAN DEW POINT	17.6	23.3	35.5	46.6	57.0	59.8	67.8	69.6	57.6	49.4	40.2	30.1	46.2	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	1	3	15	15	0	0	0	0	0	34
	MAXIMUM ≤ 32°	12	7	1	0	0	0	0	0	0	0	0	4	24	
	MINIMUM ≤ 32°	28	23	11	0	0	0	0	0	0	0	7	18	87	
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	1135	937	536	249	64	27	0	0	50	176	470	812	4456	
	COOLING DEGREE DAYS	0	0	1	49	71	221	470	498	140	29	8	0	1487	
RH	MEAN (PERCENT)	66	72	67	69	77	68	67	71	73	70	71	73	70	
	HOUR 00 LST	69	77	74	73	84	77	76	79	83	77	75	77	77	
	HOUR 06 LST	70	80	82	82	90	83	83	88	91	85	79	79	83	
	HOUR 12 LST	62	66	56	61	69	59	56	59	59	58	62	66	61	
	HOUR 18 LST	61	67	57	61	66	57	55	60	62	60	68	71	62	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	1	2	1	1	0	2	0	0	0	1	1	0	9	
	THUNDERSTORMS	0	0	5	5	7	7	4	3	4	1	2	0	38	
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.)	29.44	29.30	29.18	29.19	29.18	29.19	29.24	29.27	29.30	29.25	29.31	29.32	29.26	
	MEAN SEA-LEVEL PRESS. (IN.)	30.24	30.10	29.95	29.94	29.92	29.93	29.96	30.00	30.04	30.00	30.08	30.10	30.02	
WINDS	RESULTANT SPEED (MPH)	4.2	2.0	1.4	1.9	1.0	0.4	2.2	1.3	1.2	2.4	3.3	2.3	0.8	
	RES. DIR. (TENS OF DEGS.)	30	36	22	13	35	23	02	13	23	24	23	25	26	
	MEAN SPEED (MPH)	9.4	9.2	9.5	10.3	9.0	7.4	8.1	7.3	7.6	7.6	9.7	10.6	8.8	
	PREVAIL. DIR. (TENS OF DEGS.)	30	11	17	18	08	17	22	11	30	30	17	30	30	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	28	32	40	32	32	33	28	30	35	32	33	30	40	
	DIR. (TENS OF DEGS.)	31	30	17	30	26	30	01	36	28	30	31	31	17	
	DATE OF OCCURRENCE	10	03	19	04+	10+	10	18+	02	26	14	12	18	MAR 19	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	31	39	48	41	43	46	36	37	49	41	44	39	49	
DIR. (TENS OF DEGS.)	30	31	18	30	28	32	03	36	28	31	31	30	28		
DATE OF OCCURRENCE	18+	03	19	04	11	10	18	02	26	14	12	18	SEP 26		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.96	2.00	2.80	4.29	3.97	12.35	2.51	2.54	4.15	2.81	5.34	2.34	46.06	
	GREATEST 24-HOUR (IN.)	0.60	0.55	0.99	1.32	1.02	3.78	1.18	1.19	2.81	1.13	3.10	1.00	3.78	
	DATE OF OCCURRENCE	01-02	14-15	19	16-17	10	25-26	09-10	31	31-01	09	17-18	22-23	JUN 25-26	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	7	12	11	11	14	10	6	7	11	10	9	12	120	
PRECIPITATION ≥ 0.10	3	8	5	9	7	10	5	5	5	5	7	8	77		
PRECIPITATION ≥ 1.00	0	0	0	1	1	4	0	1	2	1	2	0	12		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	7.4	12.7	0.1	T	0.0	0.0	0.0	0.0	0.0	0.0	T	3.3	23.5	
	GREATEST 24-HOUR (IN.)	4.0	4.0	0.1	T	0.0	0.0	0.0	0.0	0.0	0.0	T	3.0	4.0	
	DATE OF OCCURRENCE	02	23	05	29+							28+	13	FEB 23	
	MAXIMUM SNOW DEPTH (IN.)	5	4	3	0	0	0	0	0	0	0	0	3	5	
	DATE OF OCCURRENCE	02	28+	01									15+	JAN 02	
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	2	5	0	0	0	0	0	0	0	0	0	1	8		

NORMALS, MEANS, AND EXTREMES

ST. LOUIS, MO (STL)

LATITUDE: 38° 45' 09" N LONGITUDE: 90° 22' 25" W ELEVATION (FT): GRND: 707 BARO: 710 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	37.9	44.3	55.4	66.7	76.5	85.3	89.8	87.9	80.1	68.3	53.8	42.0	65.7
	MEAN DAILY MAXIMUM	58	38.7	44.1	54.1	66.9	76.0	85.0	89.0	87.4	80.2	69.0	54.4	42.9	65.6
	HIGHEST DAILY MAXIMUM	46	76	85	89	93	94	102	107	107	104	94	85	76	107
	YEAR OF OCCURRENCE		1970	1972	1985	2002	1996	1988	1980	1984	1984	1963	1989	1970	AUG 1984
	MEAN OF EXTREME MAXS.	58	63.8	68.5	79.0	86.7	89.4	95.4	98.6	98.4	93.3	86.2	75.0	66.3	83.4
	NORMAL DAILY MINIMUM	30	21.2	26.5	36.2	46.5	56.6	65.9	70.6	68.6	60.3	48.2	36.7	25.8	46.9
	MEAN DAILY MINIMUM	58	21.7	26.0	34.4	45.9	55.7	65.2	69.5	67.8	59.5	47.9	36.4	26.4	46.4
	LOWEST DAILY MINIMUM	46	-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.	58	0.4	6.5	15.9	30.0	40.6	52.0	58.5	56.6	43.9	32.7	19.3	6.8	30.3
	NORMAL DRY BULB	30	29.6	35.4	45.8	56.6	66.5	75.6	80.2	78.2	70.2	58.3	45.3	33.9	56.3
	MEAN DRY BULB	58	30.2	35.0	44.3	56.4	65.9	75.1	79.3	77.7	69.9	58.4	45.2	34.7	56.0
	MEAN WET BULB	19	28.6	32.8	40.2	50.2	59.6	67.5	71.5	70.4	62.5	52.2	41.6	32.2	50.8
	MEAN DEW POINT	19	22.7	26.2	32.8	43.1	53.7	62.7	67.0	66.2	57.4	46.0	35.3	26.3	45.0
NORMAL NO. DAYS WITH:															
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.3	1.3	8.6	15.8	12.2	4.5	0.1	0.0	0.0	42.8	
MAXIMUM ≤ 32°	30	11.0	6.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	6.3	25.7	
MINIMUM ≤ 32°	30	25.6	19.2	12.2	2.5	*	0.0	0.0	0.0	0.0	1.3	10.2	22.1	93.1	
MINIMUM ≤ 0°	30	1.8	0.6	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.2	
H/C	NORMAL HEATING DEG. DAYS	30	1097	844	613	294	79	6	0	1	46	246	583	949	4758
	NORMAL COOLING DEG. DAYS	30	0	0	7	32	114	316	461	396	196	36	3	0	1561
RH	NORMAL (PERCENT)	30	75	72	68	64	67	67	68	70	70	68	72	76	70
	HOUR 00 LST	30	78	77	74	70	76	76	77	80	79	76	76	79	76
	HOUR 06 LST	30	82	83	81	78	83	83	84	87	87	84	82	83	83
	HOUR 12 LST	30	69	65	59	55	56	56	56	57	56	56	63	69	60
	HOUR 18 LST	30	71	66	59	54	56	56	56	58	58	60	66	72	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)	46	2.2	1.6	1.6	0.6	0.6	0.3	0.2	0.3	0.5	0.7	1.1	2.0	11.7
	THUNDERSTORMS	46	0.8	0.8	3.0	5.8	6.8	7.4	7.1	6.4	3.5	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)	31	29.52	29.49	29.39	29.36	29.34	29.36	29.39	29.42	29.44	29.45	29.46	29.49	29.43
	MEAN SEA-LEVEL PRES. (IN)	19	30.15	30.12	30.04	29.96	29.95	29.94	29.98	30.01	30.03	30.07	30.08	30.16	30.04
WINDS	MEAN SPEED (MPH)	53	10.5	10.7	11.6	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)	34	30	30	30	30	18	18	24	18	18	18	30	30	30
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	7	36	39	40	44	41	43	37	39	35	43	41	38	44
	DIR. (TENS OF DEGS)		31	23	17	25	29	17	30	27	28	31	24	31	25
	YEAR OF OCCURRENCE		1997	1999	2003	1997	2000	2002	2001	2000	2003	2001	1998	1998	APR 1997
MAXIMUM 5-SECOND:															
SPEED (MPH)	7	43	54	52	59	51	64	48	48	49	51	53	47	64	
DIR. (TENS OF DEGS)		35	23	30	23	27	17	34	27	28	30	24	30	17	
YEAR OF OCCURRENCE		2000	1999	2001	2002	2000	2002	1999	2000	2003	2001	1998	2000	JUN 2002	
PRECIPITATION	NORMAL (IN)	30	2.14	2.28	3.60	3.69	4.11	3.76	3.90	2.98	2.96	2.76	3.71	2.86	38.75
	MAXIMUM MONTHLY (IN)	46	5.38	4.68	6.67	10.32	12.92	12.35	10.71	6.44	9.16	7.12	9.95	7.82	12.92
	YEAR OF OCCURRENCE		1975	1986	1978	1994	1995	2003	1981	1970	1993	1984	1985	1982	MAY 1995
	MINIMUM MONTHLY (IN)	46	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)	46	2.43	2.60	2.95	4.91	6.55	3.78	3.47	3.17	3.50	2.70	3.71	4.03	6.55
	YEAR OF OCCURRENCE		1975	1999	1977	1979	1995	2003	1982	1993	1986	1986	1985	1982	MAY 1995
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	9.4	8.2	11.1	11.4	11.3	9.6	8.3	8.1	7.5	8.5	10.1	9.4	112.9	
PRECIPITATION ≥ 1.00	30	0.3	0.5	0.5	0.6	1.0	1.1	1.2	0.9	0.9	0.6	1.0	0.7	9.3	
SNOWFALL	NORMAL (IN)	30	7.4	4.8	3.3	0.6	0.0	0.0	0.0	0.0	0.*	1.5	4.9	22.5	
	MAXIMUM MONTHLY (IN)	67	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)	67	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)	55	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	2.0	1.2	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.5	6.1	

PRECIPITATION (inches) 2003 ST. LOUIS, MO (STL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2000	1.23	3.11	1.88	1.84	5.84	8.22	2.25	3.64	2.62	2.60	2.79	1.35	37.37
2001	1.12	2.48	1.45	3.01	2.81	3.60	4.00	1.99	2.81	5.50	3.06	3.46	35.29
2002	3.16	0.83	3.67	4.25	7.81	5.26	1.47	4.12	2.44	4.78	1.14	2.02	40.95
2003	0.96	2.00	2.80	4.29	3.97	12.35	2.51	2.54	4.15	2.81	5.34	2.34	46.06
POR= 133 YRS	2.21	2.30	3.33	3.77	4.16	4.14	3.43	2.90	3.08	2.74	2.83	2.30	37.19

WBAN : 13994

AVERAGE TEMPERATURE (°F) 2003 ST. LOUIS, MO (STL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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	37.4	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
2000	33.0	42.9	49.1	55.2	69.0	72.9	77.6	80.4	69.6	61.3	41.3	21.6	56.2
2001	30.5	35.1	41.5	63.1	68.7	74.1	80.7	79.6	68.8	57.7	53.1	39.9	57.7
2002	38.1	39.3	42.8	59.5	63.6	78.0	82.8	80.0	73.4	55.3	44.1	37.5	57.9
2003	28.1	31.4	47.5	58.1	65.1	71.3	79.9	80.8	67.7	60.0	49.3	38.7	56.5
POR= 130 YRS	31.3	35.0	44.5	56.2	66.0	75.2	79.5	77.6	70.1	58.8	45.5	35.0	56.2

HEATING DEGREE DAYS (base 65°F) 2003 ST. LOUIS, MO (STL)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
1999-00	0	0	41	226	370	826	985	638	490	297	36	8	3917
2000-01	0	0	57	176	709	1338	1063	831	721	154	47	13	5109
2001-02	0	0	50	246	352	772	826	714	683	234	120	0	3997
2002-03	0	0	12	338	620	847	1135	937	536	249	64	27	4765
2003-	0	0	50	176	470	812							

WBAN : 13994

COOLING DEGREE DAYS (base 65°F) 2003 ST. LOUIS, MO (STL)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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
2000	0	5	6	8	167	251	398	483	202	69	5	0	1594
2001	0	0	0	106	166	293	492	457	167	29	2	1	1713
2002	0	0	1	75	81	396	560	471	270	43	0	0	1897
2003	0	0	1	49	71	221	470	498	140	29	8	0	1487

SNOWFALL (inches) 2003 ST. LOUIS, MO (STL)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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	13.1	0.8	T	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
1999-00	0.0	0.0	0.0	0.0	0.0	0.3	5.0	T	4.8	T	0.0	0.0	10.1
2000-01	0.0	0.0	0.0	0.0	0.0	15.9	0.7	1.6	T	0.4	0.0	0.0	18.6
2001-02	0.0	0.0	0.0	T	0.2	T	6.2	2.6	5.0	0.0	0.0	0.0	14.0
2002-03	0.0	0.0	0.0	0.0	0.2	9.4	7.4	12.7	0.1	T	0.0	0.0	29.8
2003-	0.0	0.0	0.0	0.0	T	3.3							
POR= 66 YRS	0.0	0.0	0.0	T	1.4	3.9	5.4	4.2	3.6	0.5	T	T	19.0

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 (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.</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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2003
ST. LOUIS,
MISSOURI (STL)

St Louis is located at the confluence of the Missouri and Mississippi Rivers and near the geographical center of the United States. Its position in the middle latitudes allows the area to be affected by warm moist air that originates in the Gulf of Mexico, as well as cold air masses that originate in Canada. The alternate invasion of these airmasses produces a wide variety of weather conditions, and allows the region to enjoy a true four-season climate.

During the summer months, air originating from the Gulf of Mexico tends to dominate the area, producing warm and humid conditions. Since 1870, records indicate that temperatures of 90 degrees or higher occur on about 35-40 days per year. Extremely hot days (100 degrees or more) are expected on no more than five days per year.

Winters are brisk and stimulating, but prolonged periods of extremely cold weather are rare. Records show that temperatures drop to zero or below an average of 2 or 3 days per year, and temperatures as cold as 32 degrees or lower occur less than 25 days in most years. Snowfall has averaged a little over 18 inches per winter season, and snowfall of an inch or less is received on 5 to 10 days in most years.

Normal annual precipitation for St. Louis 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 rainfall of just under 10.5 inches. It is not unusual to have extended dry periods of one to two weeks during growing season.

Thunderstorms normally occur on between 40 and 50 days per year. During any year, there are usually a few of these thunderstorms that are severe, and produce large hail and damaging winds. Tornadoes have produced extensive damage and loss of life in the St. Louis area.

STATION LOCATION

ST. LOUIS, MISSOURI

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS REMARKS
						GROUND											
						SEA LEVEL	GROUND	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	WINDHOLE	8 INCH RAIN GAGE	HYGROMETER		
*NOTES:																	
<u>AIRPORT</u>																	
6185 Aviation Drive International Airport	1/11/78	06/01/96	app.72 ft SW	38°45'	90°22'	535	r20 t20	6	4	7	3 v3	20 s3 v3	3	r4 t4 u4	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'	w707								S	ASOS Commissioned 06/01/96 w. Ground elevation.		

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* NOTES: For earlier station history see previous editions.