

2003

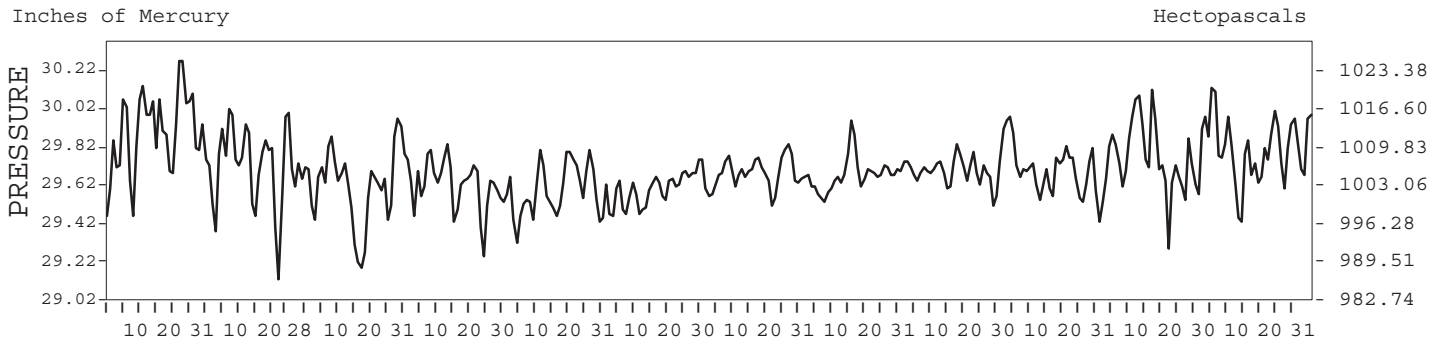
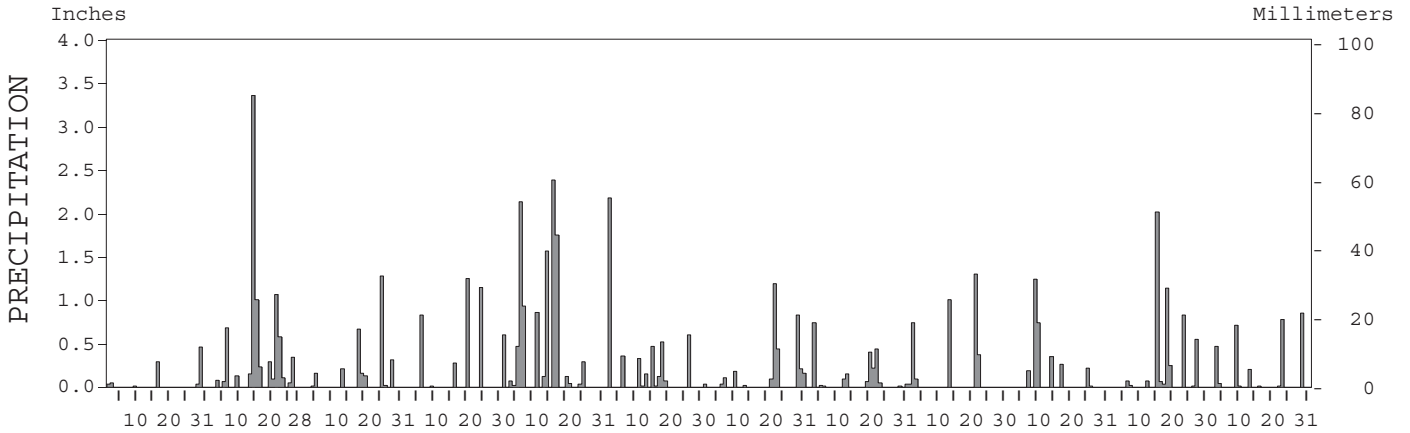
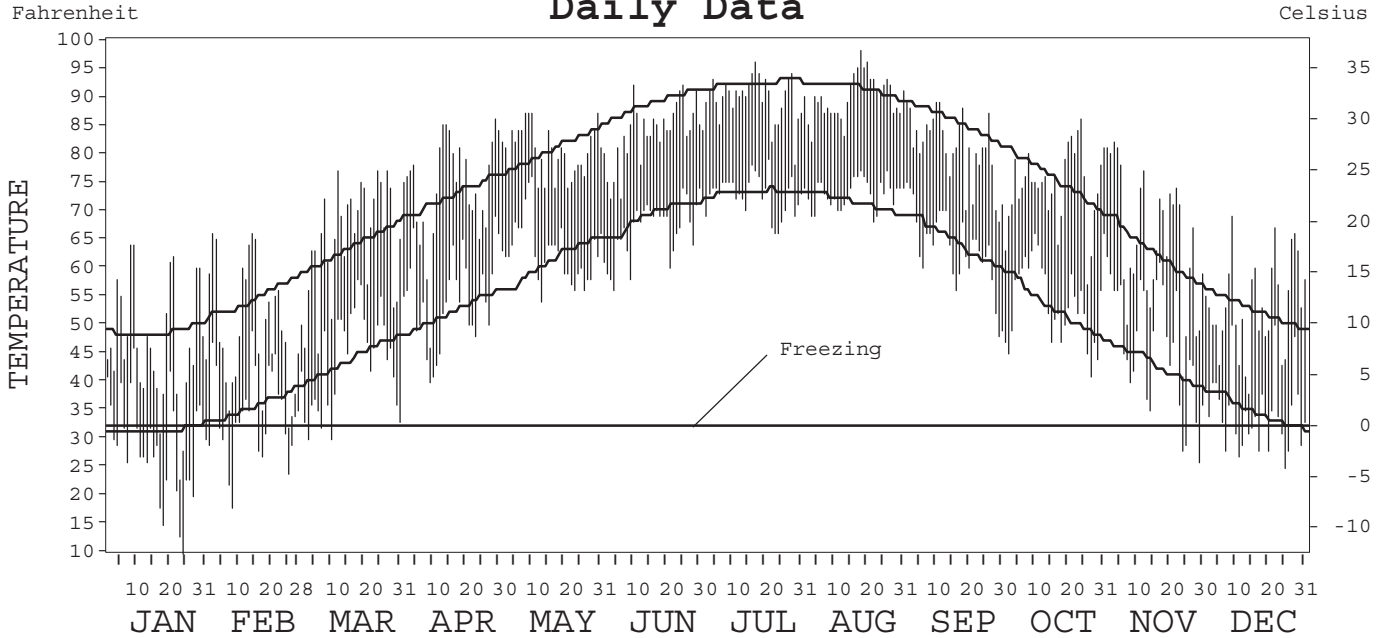
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-4829

MEMPHIS,
TENNESSEE (MEM)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 2003

MEMPHIS, TN (MEM)

LATITUDE: 35° 03' 40" N LONGITUDE: 89° 59' 06" W ELEVATION (FT): GRND: 283 BARO: 286 TIME ZONE: CENTRAL (UTC + 6) WBAN: 13893

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	46.4	49.5	64.9	74.0	80.5	83.6	89.4	89.9	80.9	74.3	64.6	53.3	70.9	
	HIGHEST DAILY MAXIMUM	64	66	77	86	87	92	96	98	89	86	82	69	98	
	DATE OF OCCURRENCE	09+	14+	27+	29	30+	25+	17	18	11+	24	03	09	AUG 18	
	MEAN DAILY MINIMUM	28.9	34.4	43.7	54.3	62.8	66.5	72.7	72.9	63.4	54.1	46.3	34.5	52.9	
	LOWEST DAILY MINIMUM	10	18	30	40	54	56	66	68	48	41	26	25	10	
	DATE OF OCCURRENCE	24	08	10+	09	13	04	24+	22	29	27	29	25	JAN 24	
	AVERAGE DRY BULB	37.7	42.0	54.3	64.2	71.7	75.1	81.1	81.4	72.2	64.2	55.5	43.9	61.9	
	MEAN WET BULB	33.4	38.9	48.5	57.7	65.8	68.3	73.4	74.1	64.7	58.1	50.6	38.8	56.0	
	MEAN DEW POINT	24.9	34.1	42.2	52.2	62.4	64.3	69.8	70.8	60.0	53.2	44.4	31.3	50.8	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	4	18	17	0	0	0	0	0	39
	MAXIMUM ≤ 32°	3	1	0	0	0	0	0	0	0	0	0	0	0	4
	MINIMUM ≤ 32°	21	11	3	0	0	0	0	0	0	0	3	12	50	
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	839	639	326	97	0	0	0	16	87	304	645	2953		
	COOLING DEGREE DAYS	0	0	1	79	216	309	507	517	235	68	28	1960		
RH	MEAN (PERCENT)	62	76	66	68	75	71	71	72	68	70	67	64	69	
	HOUR 00 LST	65	79	73	74	83	79	78	80	77	78	71	67	75	
	HOUR 06 LST	70	81	80	83	88	83	85	88	84	85	76	76	82	
	HOUR 12 LST	57	70	55	58	65	61	61	60	56	57	60	55	60	
	HOUR 18 LST	58	73	57	57	65	63	58	62	60	64	64	57	62	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	1	0	1	3	1	1	2	0	0	2	0	11	
	THUNDERSTORMS	0	3	5	5	12	8	9	12	0	4	2	2	62	
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.)	29.88	29.71	29.61	29.62	29.58	29.59	29.67	29.67	29.69	29.67	29.76	29.79	29.69	
	MEAN SEA-LEVEL PRESS. (IN.)	30.24	30.07	29.96	29.97	29.92	29.93	30.01	30.01	30.04	30.03	30.12	30.15	30.04	
WINDS	RESULTANT SPEED (MPH)	2.0	1.1	0.7	2.4	0.5	0.7	1.3	1.4	1.2	1.4	1.9	2.0	0.7	
	RES. DIR. (TENS OF DEGS.)	32	32	20	26	27	15	23	19	07	19	19	23	23	
	MEAN SPEED (MPH)	9.0	9.1	8.5	9.8	8.9	7.3	6.8	6.3	6.5	6.7	9.4	9.4	8.1	
	PREVAIL. DIR. (TENS OF DEGS.)	21	21	20	20	20	20	21	20	03	20	18	16	20	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	28	28	32	35	36	28	48	45	26	36	31	31	48	
	DIR. (TENS OF DEGS.)	01	31	20	20	29	21	31	07	25	32	31	30	31	
	DATE OF OCCURRENCE	23	03	20	16	16	11	22	22	02	14	28+	18	JUL 22	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	36	36	43	44	49	36	61	58	33	46	43	38	61	
DIR. (TENS OF DEGS.)	23	30	20	17	21	22	30	08	23	32	30	14	30		
DATE OF OCCURRENCE	18	03	20	16	05	11	22	22	02	14	28	09	JUL 22		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.87	8.23	2.95	3.52	11.40	4.82	3.29	2.22	3.54	3.01	5.05	3.08	51.98	
	GREATEST 24-HOUR (IN.)	0.49	3.36	1.28	1.25	3.62	2.18	0.97	0.74	1.67	1.98	2.08	0.85	3.62	
	DATE OF OCCURRENCE	28-29	14	25	20	16-17	02	29-30	03	21-22	09-10	15-16	29	MAY 16-17	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	6	15	9	5	15	11	11	12	6	7	11	9	117	
PRECIPITATION ≥ 0.10	2	11	7	4	11	8	7	5	4	6	5	5	75		
PRECIPITATION ≥ 1.00	0	3	1	2	4	1	1	0	2	1	2	0	17		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0															

NORMALS, MEANS, AND EXTREMES

MEMPHIS, TN (MEM)

LATITUDE: 35° 03' 40" N LONGITUDE: 89° 59' 06" W ELEVATION (FT): GRND: 283 BARO: 286 TIME ZONE: CENTRAL (UTC + 6) WBAN: 13893

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	48.6	54.4	63.3	72.4	80.4	88.5	92.1	91.2	85.3	75.1	62.1	52.2	72.1
	MEAN DAILY MAXIMUM	56	49.1	53.8	62.1	72.9	80.9	88.5	91.6	90.5	84.4	74.5	61.7	52.2	71.9
	HIGHEST DAILY MAXIMUM	62	79	81	85	94	99	104	108	107	103	95	86	81	108
	YEAR OF OCCURRENCE		2002	1962	1986	1987	1977	1954	1980	2000	1954	1954	2000	1982	JUL 1980
	MEAN OF EXTREME MAXS.	56	70.4	73.3	79.6	85.7	90.6	96.1	98.1	97.5	94.1	87.5	79.2	71.1	85.3
	NORMAL DAILY MINIMUM	30	31.3	35.5	43.7	51.9	60.8	68.8	72.9	71.2	64.3	52.5	42.6	34.5	52.5
	MEAN DAILY MINIMUM	56	31.6	35.3	42.6	52.4	61.4	69.3	73.0	71.3	64.2	52.3	42.1	34.7	52.5
	LOWEST DAILY MINIMUM	62	-4	-11	12	29	38	48	52	48	36	25	9	-13	-13
	YEAR OF OCCURRENCE		1985	1951	1943	1987	1944	1966	1947	1946	1949	1952	1950	1963	DEC 1963
	MEAN OF EXTREME MINS.	56	13.4	17.9	26.1	35.8	47.7	57.7	64.3	62.2	49.3	36.8	25.1	17.3	37.8
	NORMAL DRY BULB	30	39.9	44.9	53.5	62.1	70.6	78.7	82.5	81.2	74.8	63.8	52.3	43.3	62.3
	MEAN DRY BULB	56	40.4	44.7	52.4	62.7	71.3	78.8	82.3	80.8	74.3	63.4	51.8	43.4	62.2
	MEAN WET BULB	18	36.7	41.1	46.9	55.2	64.0	70.8	70.6	69.4	66.5	53.9	45.2	39.8	55.0
	MEAN DEW POINT	18	31.1	35.0	40.2	48.9	59.3	66.8	70.7	69.3	62.2	48.8	39.8	34.2	50.5
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.2	2.6	14.3	22.0	19.1	8.7	0.5	0.0	0.0	67.4	
MAXIMUM ≤ 32°	30	3.1	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	1.6	6.2	
MINIMUM ≤ 32°	30	16.6	11.1	3.9	0.3	0.0	0.0	0.0	0.0	0.0	0.1	3.9	12.8	48.7	
MINIMUM ≤ 0°	30	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	
H/C	NORMAL HEATING DEG. DAYS	30	770	565	366	144	22	0	0	0	13	121	381	659	3041
	NORMAL COOLING DEG. DAYS	30	1	2	15	72	210	426	554	504	307	84	11	1	2187
RH	NORMAL (PERCENT)	30	70	67	63	63	68	68	69	69	70	67	69	70	68
	HOUR 00 LST	30	74	71	68	70	75	76	78	78	78	75	73	73	74
	HOUR 06 LST	30	77	76	75	78	82	82	84	85	86	82	79	78	80
	HOUR 12 LST	30	63	58	55	53	57	57	58	57	56	53	58	62	57
	HOUR 18 LST	30	66	60	55	52	57	57	58	59	61	59	63	66	59
S	PERCENT POSSIBLE SUNSHINE	35	50	54	56	64	69	74	74	75	69	70	58	50	64
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	53	1.9	1.4	0.7	0.3	0.3	0.2	0.3	0.3	0.6	1.0	1.2	1.8	10.0
	THUNDERSTORMS	53	2.0	2.4	4.6	6.2	7.1	7.4	8.4	6.2	3.3	2.2	2.5	1.6	53.9
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	45	5.4	5.1	5.2	4.8	4.7	4.3	4.2	3.8	3.9	3.6	4.5	5.0	4.5
	MIDNIGHT-MIDNIGHT (OKTAS)	29	4.9	4.6	4.9	4.3	4.3	3.9	3.6	3.4	3.6	3.3	4.2	4.7	4.1
	MEAN NO. DAYS WITH:														
	CLEAR	43	7.7	7.9	7.9	8.6	8.4	9.6	10.2	11.8	12.5	14.4	10.2	8.9	118.1
PARTLY CLOUDY	43	5.8	5.6	6.5	7.3	9.6	11.1	11.9	11.7	7.5	7.0	6.2	5.6	95.8	
CLOUDY	43	17.5	14.8	16.6	14.1	13.0	9.3	8.9	7.4	10.0	9.7	13.6	16.5	151.4	
PR	MEAN STATION PRESSURE (IN)	28	29.86	29.82	29.72	29.70	29.70	29.68	29.71	29.72	29.75	29.79	29.81	29.88	29.76
	MEAN SEA-LEVEL PRES. (IN)	18	30.16	30.12	30.05	29.99	29.97	30.01	30.01	30.02	30.04	30.10	30.12	30.16	30.06
WINDS	MEAN SPEED (MPH)	54	10.0	10.1	10.7	10.2	8.8	7.9	7.5	6.9	7.5	7.7	9.0	9.6	8.8
	PREVAIL. DIR (TENS OF DEGS)	29	19	36	18	20	18	20	21	21	03	15	18	18	20
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	31	37	32	36	37	39	48	45	35	36	33	31	48
	DIR. (TENS OF DEGS)		29	18	20	02	24	33	31	07	10	32	28	30	31
	YEAR OF OCCURRENCE		2001	2001	2003	2002	2001	2000	2003	2003	2002	2003	2002	2003	JUL 2003
	MAXIMUM 5-SECOND:														
SPEED (MPH)	4	40	44	45	48	49	46	61	59	44	46	51	44	61	
DIR. (TENS OF DEGS)		03	18	27	30	21	33	30	30	10	32	29	17	30	
YEAR OF OCCURRENCE		2002	2001	2001	2001	2003	2000	2003	2002	2002	2003	2002	2002	JUL 2003	
PRECIPITATION	NORMAL (IN)	30	4.24	4.31	5.58	5.79	5.15	4.30	4.22	3.00	3.31	3.31	5.76	5.68	54.65
	MAXIMUM MONTHLY (IN)	53	12.21	10.51	12.08	17.13	11.58	10.17	9.96	9.65	12.34	8.28	11.60	13.81	17.13
	YEAR OF OCCURRENCE		1951	1989	1975	1991	1953	1996	1998	1978	2002	2002	2001	1982	APR 1991
	MINIMUM MONTHLY (IN)	53	0.57	1.12	1.50	1.39	0.83	0.04	0.43	0.43	0.19	T	0.75	1.05	T
	YEAR OF OCCURRENCE		1986	1980	1966	1992	1977	1953	1954	1953	1953	1963	1965	1955	OCT 1963
	MAXIMUM IN 24 HOURS (IN)	53	3.89	4.24	5.95	4.35	4.94	4.76	4.71	4.04	7.11	5.36	7.30	5.42	7.30
	YEAR OF OCCURRENCE		1974	1989	1975	1985	1958	1980	1980	1978	2002	2002	2001	1978	NOV 2001
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	10.3	8.8	11.1	10.0	10.3	9.0	8.5	6.9	7.7	6.9	9.4	9.7	108.6	
PRECIPITATION ≥ 1.00	30	1.1	1.2	1.8	2.0	1.6	1.4	1.4	0.8	1.0	1.0	2.0	1.9	17.2	
SNOWFALL	NORMAL (IN)	30	2.2	1.9	0.3	0.*	0.0	0.0	0.0	0.0	0.0	0.*	0.1	0.1	4.6
	MAXIMUM MONTHLY (IN)	49	12.4	8.3	17.3	T	T	T	0.0	0.0	0.0	T	1.5	14.3	17.3
	YEAR OF OCCURRENCE		1985	1985	1968	1993	1995	1995				1993	1976	1963	MAR 1968
	MAXIMUM IN 24 HOURS (IN)	49	8.1	5.8	16.1	T	T	T	0.0	0.0	0.0	T	1.2	14.3	16.1
	YEAR OF OCCURRENCE		1985	1960	1968	1993	1995	1995				1993	1976	1963	MAR 1968
	MAXIMUM SNOW DEPTH (IN)	51	12	6	12	0	0	0	0	0	0	0	1	13	13
	YEAR OF OCCURRENCE		1948	1985	1968								1991	1963	DEC 1963
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	0.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	

PRECIPITATION (inches) 2003 MEMPHIS, TN (MEM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	8.90	4.65	3.40	6.34	7.76	6.30	6.33	4.78	3.45	2.67	4.96	5.03	64.57
1975	4.65	5.53	12.08	4.98	8.72	2.42	2.26	2.03	2.62	2.69	7.77	2.93	58.68
1976	2.85	4.41	7.68	2.41	4.73	4.06	3.82	0.86	5.40	5.66	1.83	1.79	45.50
1977	2.57	1.99	4.13	5.42	0.83	3.38	3.41	1.62	6.43	2.02	6.01	3.39	41.20
1978	8.13	1.31	4.05	2.14	8.14	4.45	3.89	9.65	1.52	1.82	5.56	13.12	63.78
1979	5.98	5.66	6.60	11.47	7.78	4.93	3.12	5.92	4.49	2.60	7.42	4.92	70.89
1980	3.23	1.12	10.86	7.53	4.43	5.75	4.73	1.23	5.32	3.14	5.23	1.86	54.43
1981	1.38	3.66	4.98	3.67	7.06	2.93	1.71	4.21	0.61	5.83	2.12	1.84	40.00
1982	6.61	4.16	4.47	6.76	5.50	6.68	4.13	3.11	1.92	5.23	6.43	13.81	68.81
1983	2.32	2.61	3.66	8.84	9.58	3.50	3.83	0.61	1.52	2.94	9.56	8.68	57.65
1984	1.88	4.37	6.07	5.24	9.06	1.12	4.59	5.00	1.96	7.75	5.85	4.35	57.24
1985	3.78	4.10	4.96	6.51	2.23	4.55	3.50	3.50	4.03	3.36	3.87	3.27	47.66
1986	0.57	2.50	1.90	3.72	4.63	3.80	1.21	2.74	1.21	3.75	8.67	3.92	38.62
1987	1.76	5.81	3.38	3.78	2.96	3.66	2.06	4.12	2.01	1.96	10.45	11.39	53.34
1988	4.25	3.49	4.20	2.85	2.38	2.15	5.21	0.85	4.73	3.62	10.52	5.99	50.24
1989	7.91	10.51	5.50	2.13	2.36	7.20	7.55	1.43	6.08	2.37	3.65	2.20	58.89
1990	3.97	8.99	5.65	6.93	4.55	2.68	2.21	1.18	5.21	4.37	3.44	10.61	59.79
1991	2.90	6.46	3.68	17.13	5.10	1.42	1.92	2.06	1.47	4.39	5.54	7.04	59.11
1992	1.78	2.18	7.07	1.39	3.68	7.50	5.38	2.44	3.62	4.01	4.82	3.28	47.15
1993	3.59	2.46	3.14	6.20	4.56	4.20	0.86	3.69	3.73	1.91	4.07	5.59	44.00
1994	5.53	4.67	6.65	4.04	3.00	5.03	4.03	2.00	1.44	2.72	4.34	6.04	49.49
1995	7.07	2.12	3.35	4.38	5.90	6.66	8.42	3.63	0.39	1.57	7.62	5.79	56.90
1996	5.53	2.77	5.31	3.37	6.28	10.17	9.89	2.07	5.99	7.12	11.51	6.18	76.19
1997	4.37	7.63	11.28	8.91	8.00	6.75	4.35	4.01	6.31	4.06	1.69	4.52	71.88
1998	6.73	5.55	5.14	8.24	1.71	1.09	9.96	2.54	1.70	2.34	2.56	4.25	51.81
1999	6.15	2.10	6.59	8.92	4.79	2.42	3.63	1.18	1.11	1.53	2.37	4.73	45.52
2000	1.37	5.37	4.42	4.41	4.02	3.79	2.23	0.77	1.08	0.45	6.89	2.47	37.27
2001	3.32	6.89	3.54	3.94	6.35	2.12	5.53	2.25	3.35	6.93	11.60	10.19	66.01
2002	4.03	1.68	11.83	2.36	5.33	2.22	8.45	5.26	12.34	8.28	3.40	9.66	74.84
2003	0.87	8.23	2.95	3.52	11.40	4.82	3.29	2.22	3.54	3.01	5.05	3.08	51.98
POR= 132 YRS	4.81	4.40	5.30	5.18	4.49	3.77	3.57	3.18	3.02	2.92	4.50	4.88	50.02

WBAN : 13893

AVERAGE TEMPERATURE (°F) 2003 MEMPHIS, TN (MEM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	45.7	45.6	58.7	61.8	72.1	74.7	82.5	79.2	68.5	62.4	53.3	45.2	62.5
1975	45.9	46.2	49.9	61.9	73.5	78.8	81.1	81.2	70.9	65.8	53.8	44.1	62.8
1976	39.5	53.8	58.5	63.6	65.6	76.4	81.5	78.9	73.0	58.9	45.5	41.9	61.4
1977	30.7	45.1	58.6	66.9	76.4	81.9	84.7	82.6	79.0	62.2	55.1	44.1	63.9
1978	32.7	35.0	50.3	66.3	70.9	79.8	83.8	80.9	77.7	62.5	57.7	44.0	61.8
1979	30.9	38.5	54.3	63.0	70.0	77.9	82.6	80.9	73.4	65.8	50.7	45.4	61.1
1980	43.2	39.5	49.4	60.9	72.5	80.9	88.8	87.2	80.5	62.7	53.3	45.9	63.7
1981	40.9	47.3	54.3	70.2	70.0	82.5	84.6	81.8	74.0	62.5	53.8	40.9	63.6
1982	36.6	40.5	55.5	58.5	74.5	78.0	85.0	82.9	73.3	63.7	53.4	49.5	62.6
1983	40.4	45.3	51.9	56.8	68.2	77.2	83.6	84.9	75.2	66.2	53.1	34.7	61.5
1984	35.9	47.6	51.1	61.0	69.5	80.9	80.9	79.8	71.9	68.4	50.9	53.8	62.6
1985	32.4	40.6	57.7	65.0	71.8	78.9	82.2	80.2	73.6	67.2	57.6	36.9	62.0
1986	41.9	48.0	55.2	64.4	72.5	81.0	86.5	79.2	79.1	64.2	51.1	42.6	63.8
1987	39.6	47.1	54.7	62.2	76.5	80.0	82.5	83.6	75.3	59.2	54.4	46.7	63.5
1988	36.8	42.2	52.3	62.8	71.8	80.3	81.6	83.7	76.3	59.1	54.6	44.9	62.2
1989	47.3	40.0	53.8	62.6	69.5	77.6	80.7	81.2	72.4	64.2	54.2	33.6	61.4
1990	48.5	52.0	55.3	61.4	68.3	80.7	82.5	82.0	77.9	61.3	57.1	45.8	64.4
1991	41.2	48.0	55.4	65.0	74.6	80.3	83.3	80.9	75.3	65.5	49.2	46.8	63.8
1992	42.2	49.9	53.7	63.0	70.4	76.9	82.5	76.8	73.2	63.8	50.7	43.8	62.2
1993	42.7	42.6	51.1	59.3	69.9	79.2	86.4	83.6	73.5	62.2	50.2	44.8	62.1
1994	37.8	46.3	54.2	67.0	69.4	82.3	81.1	79.4	72.5	63.6	56.6	46.7	63.1
1995	42.2	44.2	56.2	62.9	71.1	77.0	81.1	84.5	73.0	65.2	48.3	43.2	62.4
1996	39.2	45.0	48.0	59.7	74.2	78.4	80.5	79.6	72.3	63.1	49.1	46.8	61.3
1997	39.7	47.6	56.7	57.9	67.9	75.7	82.5	79.3	74.7	62.6	48.5	42.3	61.3
1998	45.8	48.5	51.9	61.4	75.3	83.2	84.1	81.8	80.5	66.6	55.9	45.1	65.0
1999	46.0	51.4	50.9	67.0	71.2	79.7	83.7	82.7	75.2	64.3	57.0	45.8	64.6
2000	42.8	50.2	56.4	60.6	73.9	78.6	83.4	86.3	76.7	68.1	50.2	32.7	63.3
2001	38.0	47.7	49.3	67.7	72.1	77.7	83.2	81.8	73.6	61.7	57.3	48.2	63.2
2002	45.7	43.5	50.6	66.2	69.1	80.1	82.7	82.0	77.7	63.0	49.0	44.2	62.8
2003	37.7	42.0	54.3	64.2	71.7	75.1	81.1	81.4	72.2	64.2	55.5	43.9	61.9
POR= 129 YRS	40.9	44.3	52.5	62.2	70.6	78.4	81.5	80.3	74.3	63.5	51.8	43.5	62.0

HEATING DEGREE DAYS (base 65°F) 2003 MEMPHIS, TN (MEM)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0	0	28	121	367	607	591	521	463	180	2	0	2880
1975-76	0	0	40	90	352	643	783	326	238	100	58	0	2630
1976-77	0	0	0	231	581	708	1056	547	212	61	4	0	3400
1977-78	0	0	0	123	313	640	995	835	454	74	47	0	3481
1978-79	0	0	0	116	230	643	1049	734	345	121	23	0	3261
1979-80	0	0	0	76	426	598	669	733	478	156	7	0	3143
1980-81	0	0	5	146	362	586	739	492	342	18	23	0	2713
1981-82	0	0	9	153	331	739	873	680	324	215	2	0	3326
1982-83	0	0	20	134	352	500	759	543	406	273	25	0	3012
1983-84	0	0	27	73	368	935	894	499	426	162	24	0	3408
1984-85	0	0	37	48	423	367	1004	683	254	100	6	0	2922
1985-86	0	0	17	54	257	864	708	475	307	102	8	0	2792
1986-87	0	0	0	102	413	687	782	492	322	154	0	0	2952
1987-88	0	0	0	186	324	559	867	657	393	108	0	0	3094
1988-89	0	0	1	202	314	619	544	694	369	174	41	0	2958
1989-90	0	0	24	102	337	966	503	363	321	181	38	0	2835
1990-91	0	0	11	182	249	593	728	471	329	57	7	0	2627
1991-92	0	0	23	90	481	556	699	433	347	144	30	0	2803
1992-93	0	0	15	87	428	650	685	617	433	200	15	2	3132
1993-94	0	0	14	164	447	618	839	524	337	78	38	0	3059
1994-95	0	0	16	117	261	559	703	574	292	123	32	0	2677
1995-96	0	0	18	79	495	666	792	577	525	190	9	0	3351
1996-97	0	0	12	115	475	561	776	479	267	214	36	0	2935
1997-98	0	0	0	181	490	696	587	457	439	133	4	0	2987
1998-99	0	0	0	58	275	622	586	381	432	68	0	0	2422
1999-00	0	0	6	112	241	591	679	430	269	150	0	0	2478
2000-01	0	0	11	81	455	996	829	479	479	72	5	0	3407
2001-02	0	0	20	150	235	513	601	598	444	94	41	0	2696
2002-03	0	0	0	125	480	639	839	639	326	97	0	0	3145
2003-	0	0	16	87	304	645							

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COOLING DEGREE DAYS (base 65°F) 2003 MEMPHIS, TN (MEM)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	6	0	46	59	228	299	550	445	138	46	23	0	1840
1975	8	0	3	93	272	421	507	510	224	121	23	2	2184
1976	0	7	44	64	84	349	519	438	247	48	0	0	1800
1977	0	0	23	123	362	516	619	551	426	41	20	0	2681
1978	0	0	6	122	235	452	590	501	387	46	18	0	2357
1979	0	0	19	68	184	394	553	499	259	108	4	0	2088
1980	0	0	0	40	249	480	744	695	476	80	18	2	2784
1981	0	5	20	181	184	532	614	527	285	80	2	0	2430
1982	0	1	36	26	305	399	623	563	275	100	14	25	2367
1983	0	0	7	32	131	373	584	622	338	116	17	0	2220
1984	0	1	4	51	169	482	502	462	249	162	5	23	2110
1985	0	6	30	107	224	425	540	478	285	129	42	0	2266
1986	0	3	12	91	247	487	673	448	427	81	4	0	2473
1987	0	0	9	78	366	458	549	584	315	12	13	0	2384
1988	0	0	7	52	221	469	518	586	347	24	8	0	2232
1989	0	2	27	109	186	386	496	510	254	84	20	0	2074
1990	0	7	27	83	146	477	550	534	404	71	18	2	2319
1991	0	0	34	62	309	464	576	500	339	113	13	0	2410
1992	0	0	5	92	204	363	551	375	268	55	4	0	1917
1993	0	0	8	38	173	436	669	584	275	84	13	0	2280
1994	0	7	8	145	179	525	502	451	247	80	15	0	2159
1995	4	0	26	66	229	365	507	612	264	91	2	1	2167
1996	0	6	5	40	302	408	486	458	237	62	4	3	2011
1997	1	1	14	7	132	327	550	446	297	114	0	0	1889
1998	0	0	39	33	330	550	598	528	471	114	9	13	2685
1999	5	6	0	136	199	447	587	555	319	99	10	1	2364
2000	0	7	12	24	284	416	579	667	371	184	18	0	2562
2001	0	2	0	159	232	387	569	526	285	56	8	2	2226
2002	11	0	4	136	175	460	555	531	385	71	6	0	2334
2003	0	0	1	79	216	309	507	517	235	68	28	0	1960

SNOWFALL (inches) 2003 MEMPHIS, TN (MEM)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	0.0	0.0	0.0	T	0.2	3.9	0.5	1.4	0.0	0.0	0.0	6.0
1975-76	0.0	0.0	0.0	0.0	0.0	0.1	0.3	T	0.0	0.0	0.0	0.0	0.4
1976-77	0.0	0.0	0.0	0.0	1.5	0.3	3.5	T	0.0	0.0	0.0	0.0	5.3
1977-78	0.0	0.0	0.0	0.0	0.0	T	4.3	3.2	T	0.0	0.0	0.0	7.5
1978-79	0.0	0.0	0.0	0.0	0.0	T	3.0	7.4	0.0	0.0	0.0	0.0	10.4
1979-80	0.0	0.0	0.0	0.0	T	0.0	1.3	1.5	0.8	0.0	0.0	0.0	3.6
1980-81	0.0	0.0	0.0	0.0	T	T	T	T	0.0	0.0	0.0	0.0	T
1981-82	0.0	0.0	0.0	0.0	0.0	T	4.5	0.7	1.2	0.0	0.0	0.0	6.4
1982-83	0.0	0.0	0.0	0.0	0.0	T	7.3	T	0.2	0.0	0.0	0.0	7.5
1983-84	0.0	0.0	0.0	0.0	0.0	0.8	2.0	T	0.5	0.0	0.0	0.0	3.3
1984-85	0.0	0.0	0.0	0.0	0.0	T	12.4	8.3	0.0	0.0	0.0	0.0	20.7
1985-86	0.0	0.0	0.0	0.0	0.0	T	T	2.0	0.0	0.0	0.0	0.0	2.0
1986-87	0.0	0.0	0.0	0.0	0.0	T	T	T	0.4	0.0	0.0	0.0	T
1987-88	0.0	0.0	0.0	0.0	0.0	T	8.2	3.0	T	0.0	0.0	0.0	11.2
1988-89	0.0	0.0	0.0	0.0	0.0	T	T	0.3	T	0.0	T	0.0	0.3
1989-90	0.0	0.0	0.0	T	T	0.4	0.0	0.0	0.0	T	0.0	0.0	0.4
1990-91	0.0	0.0	0.0	0.0	0.0	0.4	T	T	1.0	0.0	0.0	0.0	1.4
1991-92	0.0	0.0	0.0	0.0	0.6	0.0	T	0.0	T	0.0	0.0	0.0	0.6
1992-93	0.0	0.0	0.0	0.0	T	T	T	T	T	T	T	0.0	T
1993-94	0.0	0.0	0.0	T	0.0	0.0	0.7	2.4	T	0.0	0.0	0.0	3.1
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.5	0.7	0.0	T	T	3.7
1995-96	0.0	0.0	0.0	0.0	T	T	0.4	0.2	T	0.0	0.0	0.0	0.6
1996-97	0.0	0.0	0.0	0.0	0.0	T	3.8	0.7	0.0	0.0	T	0.0	4.5
1997-98	0.0	0.0	0.0	0.0	0.0	T	3.0	0.0	T	0.0	0.0	0.0	3.0
1998-99	0.0	0.0	0.0	0.0	0.0	0.8	T	T	T	0.0			
1999-00													
2000-01													
2001-02													
2002-03													
2003-													
POR= 47 YRS	0.0	0.0	0.0	T	0.1	0.6	2.2	1.4	0.8	T	T	T	5.1

WBAN : 13893

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
MEMPHIS,
TENNESSEE (MEM)

Topography varies from the level alluvial area in east-central Arkansas to the slightly rolling area in northwestern Mississippi and southwestern Tennessee.

Agricultural interests are varied, with major crops being cotton, corn, hay, soybeans, peaches, apples, and a considerable number of vegetables. The climate is quite favorable for dairy interests, and for the raising of cattle and hogs.

The growing season is about 230 days in length. The average date for the last occurrence of temperatures as low as 32 degrees is late March. The average date of the first temperature of 32 degrees or below is early November.

Precipitation of nearly 50 inches per year is fairly well distributed. Crops and pastures receive, on the average, an adequate supply of moisture during the growing season, with lesser amounts during the fall harvesting period.

Sunshine averages slightly over 70 percent of the possible amount during the growing season. Relative humidity averages about 70 percent for the year.

Memphis, although not in the normal paths of storms coming from the Gulf or from western Canada, is affected by both, and thereby has comparatively frequent changes in weather. Extremely high or low temperatures, however, are relatively rare.

STATION LOCATION

MEMPHIS, TENNESSEE

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	
						SEA LEVEL		GROUND										TEMPERATURE
						GROUND	SITE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TRAINING GAUGE	WEIGHING GAUGE	8 INCH RAIN GAUGE	HYGROMETER			
*NOTE:																		
<u>AIRPORT</u>																		
2488 Winchester Road International Airport	10/12/85	03/01/88	0.3 mi. ESE	35°03'	89°59'	258	i22		6		2		j4	4	FAA operation eff. 10/12/85. Office returned to pre-1973 location. WSFO moved to 7777 Walnut Grove Rd. with no observing program.			
2496 Winchester Road International Airport	03/01/88	04/30/99	Unk	35°03'	89°59'	258	k22	k6		4	4	4	k4	i. Not moved 10/12/85. Station type changed from FAA to FCWOS 9/1/87. j. Installed 10/01/87. K. Not moved 03/01/88.				
International Airport	04/30/99	Present	NA	35°04'	89°59'	1283								S	ASOS Commissioned 04/30/99 l. Ground elevation.			

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* NOTES: For earlier station history see previous edition.