

1995

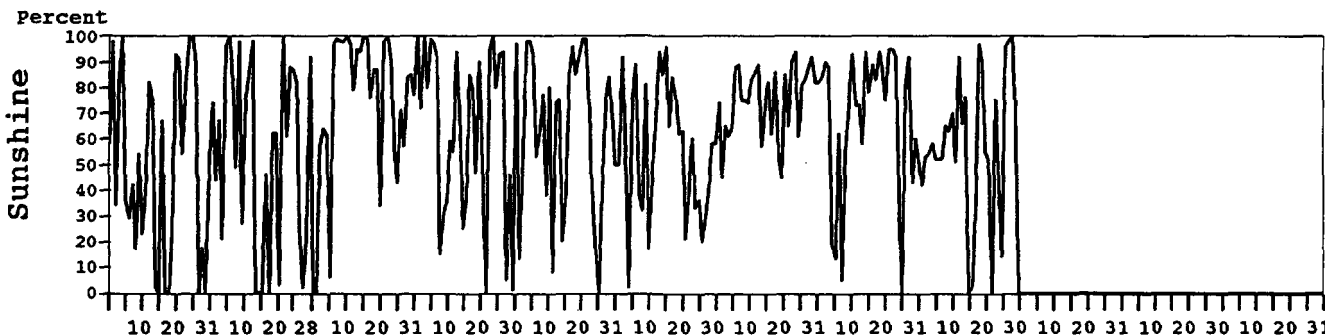
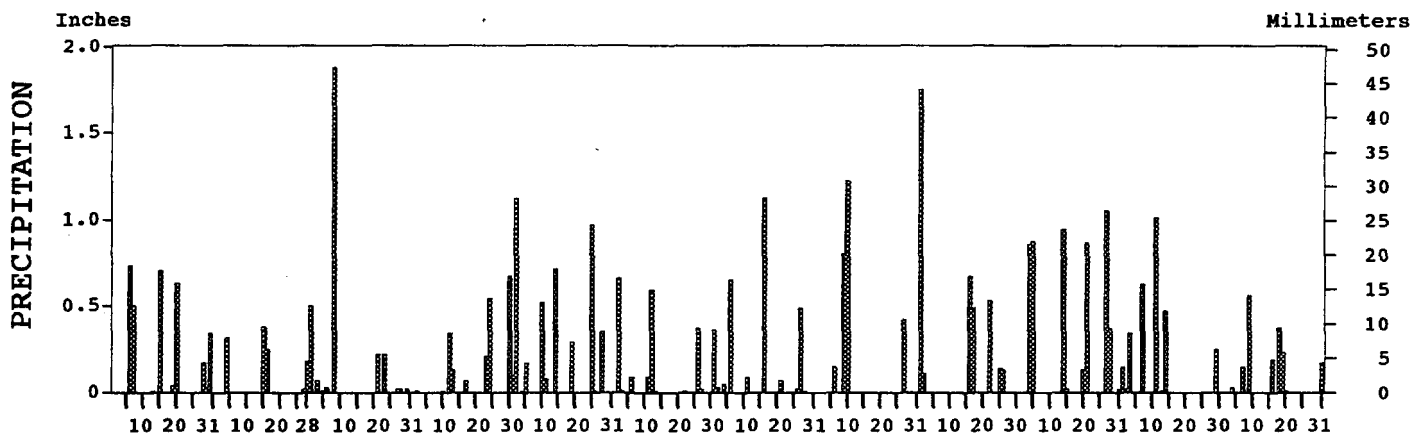
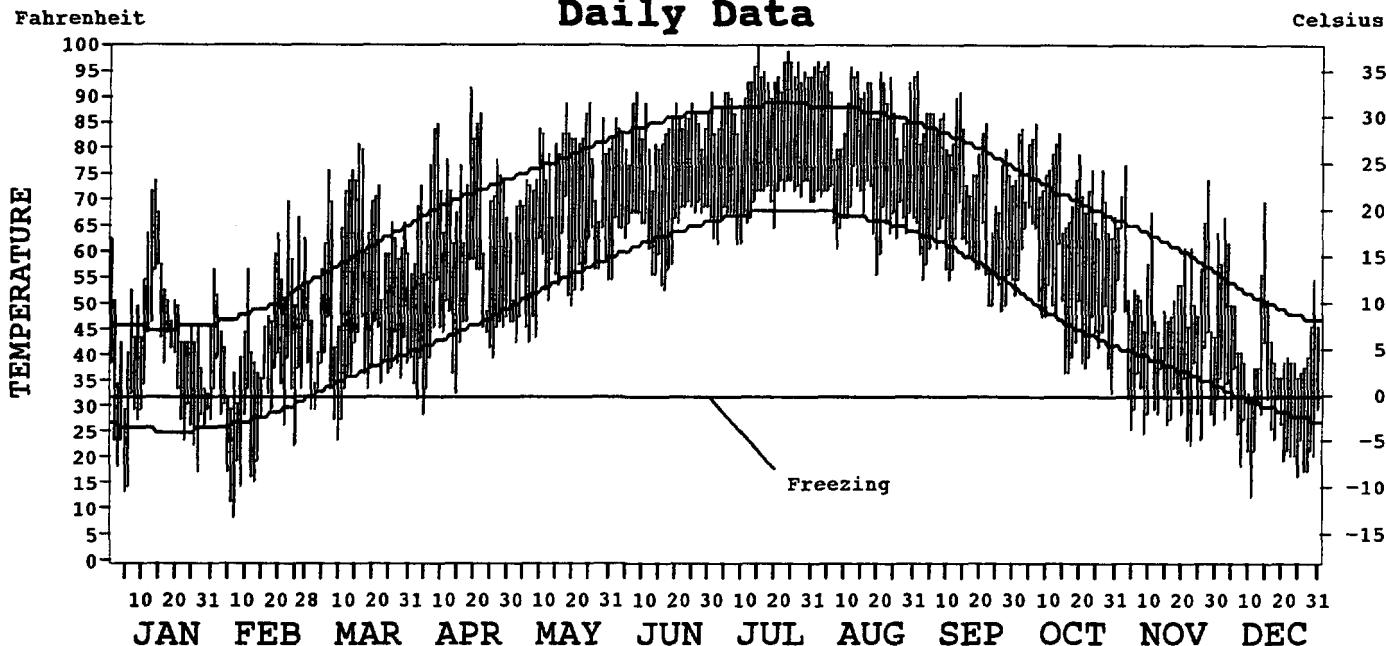
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-5361

RICHMOND, VIRGINIA (RIC)

Daily Data



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NATIONAL
OCEANIC AND
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NATIONAL
ENVIRONMENTAL SATELLITE, DATA,
AND INFORMATION SERVICE

NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

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NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 1995

RICHMOND, VIRGINIA

LATITUDE: 37° 30' N LONGITUDE: 77° 20' W ELEVATION: FT. GRND 164 BARO 178 TIME ZONE: EASTERN WBAN: 13740

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F													
Averages													
-Daily Maximum	48.8	48.4	62.5	71.4	76.8	83.9	92.2	89.7	79.5	73.2	54.2	45.1	68.8
-Daily Minimum	32.5	28.9	37.9	44.7	54.8	64.2	69.4	68.0	58.6	49.0	34.1	26.0	47.3
-Monthly	40.7	38.7	50.2	58.1	65.8	74.1	80.8	78.9	69.1	61.1	44.2	35.6	58.1
-Monthly Dewpt.	29.2	21.8	34.0	41.7	54.1	64.7	69.1	67.0	58.9	52.1	33.9	23.8	45.9
Extremes													
-Highest	74	70	81	92	89	91	100	97	95	85	77	70	100
-Date	14	23	16	19	25	8	15	5	1	7	3	15	JUL 15
-Lowest	14	9	24	29	43	53	62	56	49	33	23	13	9
-Date	5	7	10	5	7	17	10	20	27	30	23	11	FEB 7
DEGREE DAYS BASE 65 °F													
Heating	750	731	453	236	72	1	0	0	28	166	620	905	3962
Cooling	1	0	0	35	105	281	495	437	157	52	3	0	1566
% OF POSSIBLE SUNSHINE	49	55	73	68	62	55	74	69	57	74	60	65	64
AVG. SKY COVER (tenths)													
Sunrise - Sunset	7.0	6.7	5.4	6.6	7.0	7.8	5.8	5.6	6.8				
Midnight - Midnight	6.6	6.6	5.0	5.8	6.5	7.5	5.1	4.7	6.0				
NUMBER OF DAYS:													
Sunrise to Sunset													
-Clear	5	8	11	6	8	2	7	9	7				
-Partly Cloudy	7	4	7	11	6	7	11	13	6				
-Cloudy	19	16	13	13	17	21	13	9	17				
Precipitation													
.01 inches or more	9	5	11	8	11	9	10	4	7	9	8	8	99
Snow,Ice Pellets,Hail													
1.0 inches or more	2	0	0	0	0	0	0	0	0	0	0	0	2
Thunderstorms	1	0	1	3	6	7	9	0	1	2	0	0	30
Heavy Fog, visibility													
1/4 mile or less	1	1	2	1	1	2	0	0	2	2	0	1	13
Temperature F °													
-Maximum													
90° and above	0	0	0	1	0	1	25	18	3	0	0	0	48
32° and below	1	3	0	0	0	0	0	0	0	0	0	1	5
-Minimum													
32° and below	18	15	5	2	0	0	0	0	0	0	17	27	84
0° and below	0	0	0	0	0	0	0	0	0	0	0	0	0
AVG. STATION PRESS. (mb)	1011.2	1010.8	1013.5	1009.1	1009.1	1009.8	1009.7	1010.2	1012.9	1011.0	1012.0	1013.2	1011.2
RELATIVE HUMIDITY (%)													
Hour 01	73	60	70	73	83	90	89	86	87	89	80	69	79
Hour 07 (Local Time)	76	67	77	77	81	87	83	84	88	91	83	78	81
Hour 13	56	44	45	42	52	58	51	53	54	53	54	49	51
Hour 19	67	51	51	51	61	72	66	64	73	77	68	63	64
PRECIPITATION (inches):													
Water Equivalent													
-Total	3.15	1.14	3.00	1.98	4.33	1.85	2.89	2.59	3.82	5.11	2.87	1.71	34.44
-Greatest (24 hrs)	1.23	0.38	1.88	0.74	1.22	0.68	1.12	1.69	1.86	1.42	1.01	0.56	1.88
-Date	6-7	15	8-9	23-24	1-2	11-12	16	9-10	1-2	27-28	11	9	MAR 8-9
Snow,Ice pellets,Hail													
-Total	3.1	T	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T		
-Greatest (24 hrs)	1.9	T	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T		
-Date	29-30	18	3-4								25		
WIND:													
Resultant													
-Direction (!!)	262	275	340	227	213	104	194	035	013	199	260	302	263
-Speed (mph)	1.7	2.6	1.8	1.2	1.1	1.3	3.3	1.8	2.0	2.2	2.6	2.8	0.8
Average Speed (mph)	8.0	8.3	7.6	8.8	8.2	7.6	7.3	7.5	6.7	6.6	8.6	7.1	7.7
Fastest Obs. 2 Min.													
-Direction (!!)	18	32	32	25	30	26	24	35	32	27	23		
-Speed (mph)	25	23	40	23	24	23	32	20	22	31	36		
-Date	15	21	8	12	25	11	24	17	1	27	11		
Peak Gust													
-Direction (!!)	S	NW	NW	SW	W	W	SW	SW	NW	25	30		
-Speed (mph)	36	41	58	35	36	29	40	30	31	49	51		
-Date	15	4	8	22	25	11	24	5	1	27	11		

(!!) See Reference Notes on Page 6B

NORMALS, MEANS, AND EXTREMES

RICHMOND, VIRGINIA

LATITUDE: 37° 30' N LONGITUDE: 77° 20' W ELEVATION: FT. GRND 164 BARO 178 TIME ZONE: EASTERN WBAN: 13740

	(a)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F														
Normals														
-Daily Maximum		45.7	49.2	59.5	70.0	77.8	85.1	88.4	87.1	80.9	70.7	61.3	50.2	68.8
-Daily Minimum		25.7	28.1	36.3	44.6	54.2	62.7	67.5	66.4	59.0	46.5	37.9	29.9	46.6
-Monthly		35.7	38.7	48.0	57.3	66.0	73.9	78.0	76.8	70.0	58.6	49.6	40.1	57.7
Extremes														
-Record Highest	66	80	83	93	96	100	104	105	102	103	99	86	80	105
-Year		1950	1932	1938	1990	1941	1952	1977	1983	1954	1941	1993	1971	JUL 1977
-Record Lowest	66	-12	-10	11	23	31	40	51	46	35	21	10	-1	-12
-Year		1940	1936	1960	1985	1956	1967	1965	1934	1974	1962	1933	1942	JAN 1940
NORMAL DEGREE DAYS:														
Heating (base 65 °F)		908	736	527	241	61	0	0	0	23	233	462	772	3963
Cooling (base 65 °F)		0	0	0	10	92	270	403	366	173	34	0	0	1348
% OF POSSIBLE SUNSHINE	45	54	58	62	66	65	69	68	66	65	63	59	54	62
MEAN SKY COVER(tenths)														
Sunrise - Sunset	50	6.5	6.3	6.2	6.1	6.3	6.1	6.1	6.0	5.8	5.4	5.8	6.2	6.1
MEAN NUMBER OF DAYS:														
Sunrise to Sunset														
-Clear	50	8.2	8.2	8.2	7.8	7.0	6.7	6.9	7.3	9.2	11.5	9.3	9.4	99.8
-Partly Cloudy	50	6.6	6.4	8.2	9.3	10.0	11.8	11.6	11.6	8.6	7.3	7.7	6.3	105.5
-Cloudy	50	16.2	13.7	14.6	12.9	13.9	11.5	12.5	12.1	12.2	12.1	13.0	15.2	159.9
Precipitation														
.01 inches or more	58	10.3	9.1	10.8	9.3	10.7	9.4	11.2	9.6	8.1	7.3	8.3	8.9	113.2
Snow,Ice Pellets,Hail														
1.0 inches or more	58	1.3	1.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	3.8
Thunderstorms	58	0.2	0.4	1.6	2.5	5.3	6.7	8.8	6.4	2.9	1.0	0.6	0.2	36.6
Heavy Fog Visibility														
1/4 mile or less	66	2.7	2.1	1.7	1.6	1.8	1.5	2.0	2.4	2.9	3.3	2.2	2.8	26.9
Temperature °F														
-Maximum														
90° and above	66	0.0	0.0	0.1	0.8	2.7	9.4	14.3	11.0	4.4	0.4	0.0	0.0	43.1
32° and below	66	3.2	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.*	1.6	6.5
-Minimum														
32° and below	66	21.2	18.8	10.3	2.1	0.1	0.0	0.0	0.0	0.0	1.7	10.0	20.1	84.3
0° and below	66	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.*	0.5
AV. STATION PRES.(mb)	23	1013.0	1012.6	1010.8	1009.4	1009.4	1009.5	1010.1	1011.2	1012.3	1013.2	1013.4	1013.8	1011.6
RELATIVE HUMIDITY (%)														
Hour 01	61	77	74	73	74	83	86	88	90	89	87	80	77	82
Hour 07 (Local Time)	61	80	79	78	76	80	82	85	89	90	89	84	81	83
Hour 13	61	57	52	49	45	51	53	56	57	56	53	51	55	53
Hour 19	61	68	62	58	55	64	67	71	75	78	76	69	69	68
PRECIPITATION (ins):														
Water Equivalent														
-Normal														
-Maximum Monthly	58	7.97	5.97	8.65	7.31	8.87	9.24	18.87	14.10	10.98	9.39	7.64	7.07	18.87
-Year		1978	1979	1984	1987	1972	1938	1945	1955	1975	1971	1959	1973	JUL 1945
-Minimum Monthly	58	0.64	0.48	0.94	0.64	0.87	0.38	0.51	0.52	0.26	0.30	0.36	0.40	0.26
-Year		1981	1978	1966	1963	1965	1980	1983	1943	1978	1963	1965	1980	SEP 1978
-Maximum in 24 hrs	58	3.31	2.67	3.43	2.97	3.08	4.61	5.73	8.79	4.02	6.50	4.07	3.16	8.79
-Year		1962	1979	1992	1987	1981	1963	1969	1955	1985	1961	1956	1958	AUG 1955
Snow,Ice Pellets,Hail														
-Maximum Monthly	58	28.5	21.4	19.7	2.0	T	0.0	0.0	0.0	0.0	T	7.3	12.5	28.5
-Year		1940	1983	1960	1940	1994					1979	1953	1958	JAN 1940
-Maximum in 24 hrs	58	21.6	16.8	12.1	2.0	T	0.0	0.0	0.0	0.0	T	7.3	7.5	21.6
-Year		1940	1983	1962	1940	1994					1979	1953	1966	JAN 1940
WIND:														
Mean Speed (mph)	47	8.1	8.6	9.1	9.0	7.9	7.4	6.9	6.5	6.7	7.0	7.6	7.8	7.7
Prevailing Direction through 1963		S	NNE	W	S	SSW	S	SSW	S	S	NNE	S	SW	S
Fastest Obs. 2 Min.														
-Direction (!!)	10	23	32	27	21	23	30	23	18	36	27	23	21	23
-Speed (mph)		30	32	41	29	46	32	40	30	37	31	36	32	46
-Year		1992	1987	1989	1990	1989	1987	1992	1991	1989	1995	1995	1988	MAY 1989
Peak Gust														
-Direction (!!)	11	NW	NW	W	N	SW	NW	N	SW	N	25	SW	SW	SW
-Speed (mph)	11	48	48	67	49	79	53	61	48	49	49	54	49	79
-Date		1985	1987	1989	1992	1989	1987	1986	1992	1989	1995	1988	1988	MAY 1989

(!!) See Reference Notes on Page 6B

PRECIPITATION (inches)

RICHMOND, VIRGINIA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1966	4.58	3.80	0.94	2.18	2.58	2.54	4.07	1.31	5.06	4.81	1.31	3.07	36.25
1967	1.50	3.35	2.34	1.32	3.71	3.58	5.00	6.65	0.95	1.00	1.76	6.48	37.64
1968	2.53	0.98	4.00	2.93	3.13	2.89	3.41	3.71	1.78	1.59	3.87	2.28	33.10
1969	2.04	3.95	3.95	2.60	3.32	4.36	13.90	9.31	3.89	1.88	1.87	5.26	56.33
1970	1.32	2.37	3.70	2.84	1.84	1.12	4.74	1.69	1.02	1.55	3.10	3.00	28.29
1971	1.84	4.37	2.68	1.76	6.82	4.10	4.40	3.73	2.35	9.39	2.76	0.75	44.95
1972	1.43	5.15	2.11	3.35	8.87	8.82	5.80	3.84	3.35	7.89	5.82	2.91	59.34
1973	2.66	3.11	3.44	4.58	3.56	2.45	3.64	4.34	1.82	2.56	1.27	7.07	40.50
1974	3.21	2.54	3.79	1.58	3.02	1.80	2.25	6.84	4.83	0.39	1.23	4.22	35.70
1975	5.71	2.96	8.04	2.78	2.59	4.00	12.29	2.31	10.98	3.10	2.04	4.51	61.31
1976	3.39	1.35	2.14	1.08	3.76	2.85	2.63	1.35	4.78	6.99	1.88	2.56	34.76
1977	2.22	1.34	2.67	2.33	3.99	1.25	4.20	6.15	2.16	7.88	4.32	5.57	44.08
1978	7.97	0.48	5.67	4.31	3.92	5.26	4.24	5.93	0.26	1.21	4.57	3.80	47.62
1979	6.16	5.97	2.59	3.97	3.80	2.42	4.36	7.08	9.76	3.87	5.50	1.64	57.12
1980	6.05	1.01	5.49	4.28	4.68	0.38	5.18	2.15	2.37	6.96	2.18	0.40	41.13
1981	0.64	2.76	1.52	2.96	6.62	3.69	4.01	2.89	2.70	2.36	0.68	5.04	35.87
1982	2.76	4.44	3.74	2.97	3.48	3.97	9.21	4.39	2.55	2.90	2.70	3.37	46.48
1983	1.59	3.95	6.04	5.21	2.50	5.46	0.51	0.97	3.05	4.02	5.63	4.50	43.43
1984	3.98	3.97	8.65	5.92	4.52	2.01	3.55	4.58	1.86	2.14	3.34	1.52	46.04
1985	3.54	3.20	1.80	0.65	2.36	4.01	5.31	10.58	4.97	5.09	6.99	0.58	49.08
1986	2.69	2.67	1.16	1.16	3.15	1.30	7.01	6.75	0.63	2.43	2.46	5.15	36.56
1987	5.53	2.57	1.65	7.31	2.94	6.29	1.20	1.11	4.43	1.25	3.13	2.86	40.27
1988	2.53	3.08	1.98	2.55	4.81	2.25	7.50	2.95	1.74	2.74	4.34	0.79	37.26
1989	1.88	4.34	5.00	4.27	5.02	5.85	4.00	4.89	5.33	3.54	3.00	2.62	49.74
1990	2.84	2.38	2.54	2.81	6.85	0.97	6.74	5.76	1.92	3.90	1.70	3.52	41.93
1991	3.62	1.09	5.87	0.87	0.91	6.24	3.47	3.32	2.69	2.50	0.67	4.53	35.78
1992	1.57	2.89	5.87	2.21	4.95	2.28	5.68	6.40	2.35	1.94	2.62	2.79	41.55
1993	4.48	2.88	7.24	3.23	4.66	1.75	1.91	3.89	2.97	2.23	3.24	3.77	42.25
1994	3.10	4.38	7.92	2.70	2.49	1.73	7.46	2.54	3.99	2.56	3.99	0.95	43.81
1995	3.15	1.14	3.00	1.98	4.33	1.85	2.89	2.59	3.82	5.11	2.87	1.71	34.44
Record Mean	3.13	2.98	3.71	2.94	3.76	3.58	5.35	4.79	3.50	3.31	3.18	3.10	43.32

(!!) See Reference Notes on Page 6B

AVERAGE TEMPERATURE (deg. F)

RICHMOND, VIRGINIA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1966	31.1	37.7	47.5	52.8	63.1	71.4	76.4	74.6	67.2	55.5	49.5	38.0	55.4
1967	40.9	34.8	46.6	58.8	60.7	72.1	76.6	75.5	65.7	57.2	44.0	41.9	56.2
1968	33.9	34.2	52.0	58.8	64.7	74.7	78.9	78.9	70.9	61.9	51.3	37.0	58.1
1969	33.9	36.8	42.3	57.6	65.5	75.7	78.3	75.1	68.1	58.5	46.8	35.5	56.2
1970	30.1	37.1	42.9	58.2	69.1	75.7	78.3	78.0	74.8	62.9	49.9	40.4	58.1
1971	33.8	39.5	44.5	55.0	63.3	74.7	76.6	75.3	71.4	64.6	48.5	48.0	57.9
1972	40.7	37.6	47.2	56.2	64.6	70.1	77.1	75.2	70.1	55.8	47.9	45.9	57.4
1973	37.6	38.5	52.6	57.9	65.1	76.0	77.4	77.5	72.3	60.6	51.3	40.8	59.0
1974	45.8	40.1	50.4	59.9	65.8	70.6	76.9	75.7	67.4	55.4	48.5	41.7	58.2
1975	40.7	41.4	45.3	52.9	67.7	73.6	76.0	78.8	69.3	62.5	53.6	40.0	58.5
1976	35.1	48.5	52.6	60.5	65.2	74.6	77.3	75.7	68.7	54.4	42.7	36.7	57.7
1977	25.3	40.5	53.7	61.1	68.2	73.0	81.4	79.8	74.2	57.3	52.3	39.5	58.9
1978	33.4	30.3	44.5	57.3	65.5	74.7	77.5	80.1	72.9	58.3	52.5	42.5	57.5
1979	36.4	28.6	51.1	58.4	67.1	70.8	76.9	77.8	71.0	58.3	53.3	42.3	57.7
1980	38.8	36.0	47.4	61.1	68.3	72.8	80.0	80.7	74.7	56.9	46.2	38.6	58.5
1981	31.2	42.2	44.6	60.6	64.1	77.9	79.6	75.1	69.4	56.4	49.1	38.0	57.3
1982	31.6	41.7	49.1	55.9	70.4	73.4	78.6	75.0	69.8	59.2	51.9	46.1	58.6
1983	37.8	39.1	50.4	56.1	66.1	75.6	79.4	77.7	68.8	58.1	49.0	36.2	57.9
1984	32.6	44.5	43.6	55.8	65.4	77.7	76.0	77.0	67.5	66.1	46.6	47.7	58.4
1985	32.6	40.2	49.7	62.0	68.0	74.3	79.0	77.5	70.8	62.6	56.6	37.8	59.3
1986	36.2	39.3	50.0	59.2	66.9	76.1	80.9	74.2	70.8	61.8	49.1	40.9	58.8
1987	34.7	37.0	47.1	54.3	67.3	75.8	81.3	78.5	72.3	52.9	51.3	43.0	58.0
1988	32.3	39.1	47.9	56.0	65.8	72.8	79.9	79.8	68.4	53.6	50.6	39.2	57.1
1989	42.3	39.6	47.9	55.8	64.1	76.1	77.7	75.3	70.8	60.2	49.3	31.3	57.5
1990	46.3	48.0	52.1	57.9	65.8	75.0	79.9	76.3	69.5	63.1	52.6	46.3	61.1
1991	40.2	44.0	50.8	60.2	72.1	75.3	80.7	78.6	71.6	59.9	49.6	44.3	60.6
1992	40.7	42.7	47.2	57.8	61.7	70.8	79.5	73.7	70.3	56.3	50.6	40.9	57.7
1993	41.4	37.8	45.9	55.9	67.7	75.0	82.5	78.5	72.5	58.6	50.9	39.0	58.8
1994	33.4	40.2	48.9	63.2	63.2	78.0	81.1	75.4	69.2	57.6	52.6	45.6	59.0
1995	40.7	38.7	50.2	58.1	65.8	74.1	80.8	78.9	69.1	61.1	44.2	35.6	58.1
Record Mean	37.4	39.5	47.4	57.2	66.3	74.2	78.1	76.5	70.1	58.8	49.1	39.9	57.9
Max	47.2	50.2	58.7	69.6	78.1	85.3	88.4	86.6	80.9	70.6	60.6	50.0	68.9
Min	27.6	28.9	36.0	44.8	54.4	63.0	67.7	66.3	59.3	46.9	37.6	29.8	46.9

(!!) See Reference Notes on Page 6B

HEATING DEGREE DAYS Base 65 deg. F RICHMOND, VIRGINIA

SEASON	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1966-67	0	0	47	293	466	833	738	841	560	230	171	17	4196
1967-68	0	0	64	256	623	708	956	887	416	191	86	0	4187
1968-69	0	0	0	161	403	864	957	783	695	237	66	0	4166
1969-70	0	0	45	221	541	907	1076	778	677	231	51	0	4527
1970-71	0	0	12	124	445	756	960	709	627	295	104	3	4035
1971-72	0	0	11	69	512	526	748	788	554	286	58	21	3573
1972-73	0	0	17	285	513	588	843	735	394	247	79	0	3701
1973-74	0	0	5	163	414	744	589	691	455	204	75	5	3345
1974-75	0	0	62	310	513	715	746	654	604	368	44	1	4017
1975-76	0	0	27	121	356	770	917	480	386	227	78	11	3373
1976-77	0	1	15	332	660	869	1227	680	366	176	42	7	4375
1977-78	0	0	4	259	401	784	974	964	627	235	88	5	4341
1978-79	0	0	16	214	366	694	876	1011	439	218	44	4	3882
1979-80	0	0	8	242	353	698	806	835	541	135	47	2	3667
1980-81	0	0	14	267	557	813	1042	633	626	171	107	0	4230
1981-82	0	1	29	273	473	834	1029	645	486	280	6	1	4057
1982-83	0	6	10	213	399	585	836	718	445	282	69	2	3565
1983-84	0	1	86	236	475	887	994	589	657	282	93	3	4303
1984-85	0	0	73	57	546	531	997	692	484	177	35	5	3597
1985-86	0	0	31	114	257	838	886	713	465	187	78	3	3572
1986-87	0	16	24	172	476	741	931	777	550	317	57	0	4061
1987-88	0	0	5	370	409	677	1008	746	527	279	79	32	4132
1988-89	0	0	27	361	425	794	696	709	546	293	108	0	3959
1989-90	0	3	38	181	468	1036	574	472	436	258	50	3	3519
1990-91	0	0	33	146	365	574	762	582	443	193	27	1	3126
1991-92	0	0	25	190	458	637	749	640	545	261	142	10	3657
1992-93	0	0	37	275	427	739	724	757	585	280	24	0	3848
1993-94	0	0	26	213	436	799	973	687	497	130	120	0	3881
1994-95	0	0	11	232	365	595	750	731	453	236	72	1	3446
1995-96	0	0	28	166	620	905							

(!) See Reference Notes on Page 6B
Page 5A

COOLING DEGREE DAYS Base 65 deg. F RICHMOND, VIRGINIA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1969	0	0	0	21	90	328	417	321	147	26	0	0	1350
1970	0	0	0	35	185	328	418	410	313	67	0	0	1756
1971	0	0	0	0	56	297	367	327	209	62	22	5	1345
1972	0	0	7	30	52	180	381	326	178	9	8	0	1171
1973	0	0	13	42	91	338	391	395	231	32	9	2	1544
1974	0	0	10	58	106	180	377	340	141	21	26	0	1259
1975	0	0	0	16	135	267	348	433	165	51	18	0	1433
1976	0	8	9	99	91	307	389	337	133	12	0	0	1385
1977	0	0	22	66	148	258	513	467	289	24	27	0	1814
1978	0	0	0	12	112	302	393	475	263	15	0	1	1573
1979	0	0	16	30	117	188	374	404	195	42	9	0	1375
1980	0	0	1	25	157	243	472	494	313	23	1	0	1729
1981	0	0	1	45	89	395	458	319	169	16	0	0	1492
1982	0	0	0	13	181	259	428	323	157	43	13	7	1424
1983	0	0	0	23	108	325	452	405	207	27	0	0	1547
1984	0	0	0	10	114	392	346	381	154	100	0	2	1499
1985	0	4	20	94	139	290	441	392	213	51	10	0	1654
1986	0	0	8	19	142	344	498	308	205	79	6	0	1609
1987	0	0	0	2	136	329	513	427	227	0	3	0	1637
1988	0	0	3	16	108	269	466	465	137	12	0	0	1476
1989	0	3	24	27	88	341	403	331	218	42	4	0	1481
1990	0	1	43	51	81	312	470	356	177	96	0	2	1589
1991	0	0	10	53	254	316	494	428	227	40	3	0	1825
1992	0	0	0	51	48	192	457	275	202	12	3	0	1240
1993	0	0	0	14	112	307	547	426	261	20	18	0	1705
1994	0	0	5	80	70	396	507	332	142	9	2	2	1545
1995	1	0	0	35	105	281	495	437	157	52	3	0	1566

(!) See Reference Notes on Page 6B
Page 5B

SNOWFALL (inches)

RICHMOND, VIRGINIA

SEASON	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1966-67	0.0	0.0	0.0	0.0	0.2	12.2	6.3	17.1	T	0.0	0.0	0.0	35.8
1967-68	0.0	0.0	0.0	0.0	T	5.6	2.3	2.4	2.8	0.0	0.0	0.0	13.1
1968-69	0.0	0.0	0.0	0.0	1.2	2.8	T	T	11.9	0.0	0.0	0.0	15.9
1969-70	0.0	0.0	0.0	0.0	0.0	1.8	5.4	0.4	0.0	0.0	0.0	0.0	7.6
1970-71	0.0	0.0	0.0	0.0	0.0	0.9	3.3	2.0	8.4	0.6	0.0	0.0	15.2
1971-72	0.0	0.0	0.0	0.0	T	0.0	T	13.7	0.0	T	0.0	0.0	13.7
1972-73	0.0	0.0	0.0	T	0.6	0.0	4.3	0.4	1.4	0.0	0.0	0.0	6.7
1973-74	0.0	0.0	0.0	0.0	0.0	9.9	T	5.0	T	0.0	0.0	0.0	14.9
1974-75	0.0	0.0	0.0	0.0	0.0	T	2.7	2.9	0.4	0.0	0.0	0.0	6.0
1975-76	0.0	0.0	0.0	0.0	0.0	T	0.2	T	1.0	0.0	0.0	0.0	1.2
1976-77	0.0	0.0	0.0	0.0	1.0	1.7	11.1	T	0.0	0.0	0.0	0.0	13.8
1977-78	0.0	0.0	0.0	0.0	T	T	1.3	5.1	5.0	0.0	0.0	0.0	11.4
1978-79	0.0	0.0	0.0	0.0	0.0	0.0	0.7	19.5	T	0.0	0.0	0.0	20.2
1979-80	0.0	0.0	0.0	T	0.0	T	16.6	7.0	15.0	0.0	0.0	0.0	38.6
1980-81	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.0	0.2	0.0	0.0	0.0	1.0
1981-82	0.0	0.0	0.0	0.0	T	1.9	8.3	10.8	T	0.2	0.0	0.0	21.2
1982-83	0.0	0.0	0.0	0.0	0.0	7.9	0.1	21.4	0.0	T	0.0	0.0	29.4
1983-84	0.0	0.0	0.0	0.0	0.1	T	1.1	2.8	0.3	0.0	0.0	0.0	4.3
1984-85	0.0	0.0	0.0	0.0	0.0	T	8.3	T	T	0.0	0.0	0.0	8.3
1985-86	0.0	0.0	0.0	0.0	0.0	1.3	3.3	4.4	T	T	0.0	0.0	9.0
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	15.8	5.3	0.7	T	0.0	0.0	21.8
1987-88	0.0	0.0	0.0	0.0	4.5	T	8.1	T	T	T	0.0	0.0	12.6
1988-89	0.0	0.0	0.0	0.0	0.0	1.8	T	13.6	T	T	T	0.0	15.4
1989-90	0.0	0.0	0.0	0.0	1.1	9.9	0.0	T	T	0.2	0.0	0.0	11.2
1990-91	0.0	0.0	0.0	0.0	0.0	T	T	1.9	T	0.0	0.0	0.0	1.9
1991-92	0.0	0.0	0.0	0.0	0.1	T	0.0	0.8	T	T	0.0	0.0	0.9
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.5	5.3	3.5	T	0.0	0.0	9.3
1993-94	0.0	0.0	0.0	0.0	0.0	5.1	2.2	1.7	0.7	0.0	T	0.0	9.7
1994-95	0.0	0.0	0.0	0.0	0.0	T	3.1	T	0.8	0.0	0.0	0.0	3.9
1995-96	0.0	0.0	0.0	0.0	T								
Record Mean	0.0	0.0	0.0	T	0.4	2.0	4.8	4.0	2.4	0.1	T	0.0	13.7

(!!) See Reference Notes on Page 6B

Page 6A

REFERENCE NOTES

RICHMOND, VIRGINIA

GENERAL

T - TRACE AMOUNT.
 BLANK ENTRIES DENOTE MISSING/UNREPORTED DATA.
 # INDICATES A STATION OR INSTRUMENT RELOCATION.
 SEE STATION LOCATION TABLE ON PAGE 8.

SPECIFIC

PAGE 2
 PM - INCLUDES LAST DAY OF PREVIOUS MONTH
 ASOS - AUTOMATED SURFACE OBSERVING SYSTEM IN OPERATION DURING THESE MONTHS.

PAGE 3

(a) - LENGTH OF RECORD IN YEARS, ALTHOUGH INDIVIDUAL MONTHS MAY BE MISSING.
 0.* OR * - THE VALUE IS BETWEEN 0.0 AND 0.05
 NORMALS - BASED ON THE 1961-1990 RECORD PERIOD.
 EXTREMES - DATES ARE THE MOST RECENT OCCURRENCE
 WIND DIR. - NUMERALS SHOW TENS OF DEGREES CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM.
 RESULTANT DIRECTIONS ARE GIVEN TO WHOLE DEGREES.
 BOLD VALUES INDICATE EXTREME VALUES WHICH OCCURRED AFTER THE ASOS SYSTEM WAS COMMISSIONED.

PAGE 4B

RECORD = PERIOD OF RECORD
 RECORD MEAN PRECIPITATION IS THE MEAN OF ALL DAILY PRECIPITATION AMOUNTS DURING THE PERIOD OF RECORD.
 RECORD MAX(MIN) TEMPERATURE IS THE MEAN OF ALL DAILY MAX(MIN) TEMPERATURES DURING THE PERIOD OF RECORD.
 RECORD MEAN TEMPERATURE IS THE SUM OF THE RECORD MAX AND RECORD MIN DIVIDED BY 2.
 AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAX AND MIN TEMPERATURE DIVIDED BY 2.

EXCEPTIONS

PAGES 4A, 4B, 6A
 RECORD MEANS ARE THROUGH THE CURRENT YEAR, BEGINNING IN 1930 FOR TEMPERATURE
 1930 FOR PRECIPITATION
 1938 FOR SNOWFALL

1995 RICHMOND, VIRGINIA (RIC)

Richmond is located in east-central Virginia at the head of navigation on the James River and along a line separating the Coastal Plains (Tidewater Virginia) from the Piedmont. The Blue Ridge Mountains lie about 90 miles to the west and the Chesapeake Bay 60 miles to the east. Elevations range from a few feet above sea level along the river to a little over 300 feet in parts of the western section of the city.

The climate might be classified as modified continental. Summers are warm and humid and winters generally mild. The mountains to the west act as a partial barrier to outbreaks of cold, continental air in winter. The cold winter air is delayed long enough to be modified, then further warmed as it subsides in its approach to Richmond. The open waters of the Chesapeake Bay and Atlantic Ocean contribute to the humid summers and mild winters. The coldest weather normally occurs in late December and January, when low temperatures usually average in the upper 20s, and the high temperatures in the upper 40s. Temperatures seldom lower to zero, but there have been several occurrences of below zero temperatures. Summertime high temperatures above 100 degrees are not uncommon, but do not occur every year.

Precipitation is rather uniformly distributed throughout the year. However, dry periods lasting several weeks do occur, especially in autumn when long periods of pleasant, mild weather are most common. There is considerable variability in total monthly amounts from year to year. Snow usually remains on the ground only one or two days at a time. Ice storms (freezing rain or glaze) are not uncommon, but they are seldom severe enough to do any considerable damage. A notable exception was the spectacular glaze storm of January 27-28, 1943, when nearly 1 inch of ice accumulation caused heavy damage to trees and overhead transmission lines.

The James River reaches tidewater at Richmond where flooding may occur in every month of the year, most frequently in March and least in July. Hurricanes and tropical storms have been responsible for most of the flooding during the summer and early fall months. Hurricanes passing near Richmond have produced record rainfalls. In 1955, three hurricanes brought record rainfall to Richmond within a six-week period. The most noteworthy of these were Hurricanes Connie and Diane that brought heavy rains five days apart.

Damaging storms occur mainly from snow and freezing rain in winter and from hurricanes, tornadoes, and severe thunderstorms in other seasons. Damage may be from wind, flooding, or rain, or from any combination of these. Tornadoes are infrequent but some notable occurrences have been observed within the Richmond area.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 26 and the average last occurrence in the spring is April 10.

STATION LOCATION

RICHMOND, VIRGINIA

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 = AMOS	REMARKS
						SEA LEVEL		GROUND										
						GROUND TEMPERATURE	WIND INSTRUMENTS	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	RAIN GAGE	WEIGHING RAIN GAGE	8 INCH RAIN GAGE	HYGROTHERMOMETER			
CITY - - NOTE: For period January 1880 through October 1897, refer to previous editions.																		
State Library Building Capitol Square	9/18/95	5/22/97	4 mi. S	37°32'	77°27'	142											Section Center; no observations.	
Chamber of Commerce Bldg., Ninth & Main Sts	5/22/97	5/31/00	3/8 mi. SW	37°32'	77°27'	104	107	98	98		89			89			Observational Program begun 10/5/97.	
Times Building 10th & Bank Streets	5/31/00	6/30/05	1/8 mi. NE	37°32'	77°27'	115	92	82	82		76			76				
Mutual Assurance Bldg. Ninth & Main Streets	6/30/05	1/30/10	1/8 mi. SW			104	154	145	145		138			138				
Weather Bureau Building Chimborazo Park 3301 E Broad Street	1/30/10	7/01/53	1-1/2 mi. E	37°32'	77°25'	162	53	11	11		3	A4		3			Climatological observations were continuous at City Office sites 10/5/97 through 6/30/53. A - At this site 9/24/42 to 4/19/46 and after 6/1/50.	
AIRPORT WB-CAA Building	7/15/25	9/24/42	None	37°30'	77°20'	158	#	5	5					3			CAA to 8/3/30. WBAS 8/3/30 to 5/26/35 and 7/14/38 to 9/24/42. # - 40 feet 8/3/30 to 5/26/35, estimated 40 feet 5/26/35 to 7/14/38 and estimated 50 feet to 9/24/42.	
Army Hangar (Operations Annex)	9/24/42	4/19/46	1/2 mi. NNW	37°30'	77°20'	156	55	5	5					3			AF operation.	
Old Airport Administration Bldg.	4/19/46	6/01/50	1/3 mi. SSE	37°30'	77°20'	156	46	5	5					4			WBAS reopened.	
Byrd Field + New Terminal Building + R.E. Byrd International Airport effective 2/18/71 ++	6/01/50	8/19/88	4/5 mi. N	37°30'	77°20'	c164	b20 g33	d6	d6	%60 j30	e19	f19		e19	a4 h4 i4	NA	a - Installed 2700 feet ENE of thermometer site 6/26/59. b - 67 feet to 1/11/61. c - 162 feet to 6/26/59. d - Discontinued 6/26/59. e - 3 feet to 10/9/69. f - Commissioned 11/19/63. g - Installed on roof 1/1/80. h - Minor move 12/2/82. i - Type change 7/9/84. j - ASOS installed 10/1985. k - Type change 11/12/85. l - Inactive summer 1985 until relocated 12/10/85. m - Not moved 8/19/88, other instruments moved 8/20-31/88. n - ASOS Commissioned 10/01/95	
++ Richmond International Airport effective 9/22/85.																		
Executive Terminal Richmond International Airport	8/19/88	Present	1/4 mi. N	37°31'	77°20'	164	k33	NA	NA	NA	3	3		3	k4	M		

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