Local Climatological Data

Annual Summary With Comparative Data

1979

RICHMOND, VIRGINIA

Narrative Climatological Summary

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 west 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 coldest air being 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 in January, when low temperatures usually average in the upper twenties and the high temperatures in the upper forties. Temperatures seldom lower to zero. The record lowest temperature of minus 12° was recorded at the Airport in January 1940. The record high temperature of 107° occurred in August 1918 at Chimborazo Park.

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 so that no one month can be depended upon to be normal. Snow has been recorded during seven of the twelve months. Falls of 4 inches or more occur on an average of once a year. Snow usually remains on the ground only 1 or 2 days at a time, but on one occasion it remained 21 days (January 23 to February 13, 1948). Ice storms (freezing rain or glaze) are not uncommon in winter, 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 heavy damage was done to trees and overhead transmission lines of all kinds.

The James River reaches tidewater at Richmond where flooding has occurred in every month of the year, most frequently in March and least in July. Hurricanes and less severe storms of tropical origin have been responsible for most of the flooding during the summer and early fall months. The flood of record at Richmond was Agnes in June, 1972 which produced on the 23rd crests 6 and one half feet above old high water marks dating back 200 years. Agnes was followed closely by serious flooding on October 7, 1972 and preceded by Camille on August 22, 1969 which is now the fourth greatest flood of record. In 1955 three hurricanes brought record rainfall to Richmond within a 6-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 at 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. The highest wind recorded has been 68 m.p.h. with a peak gust of 79 m.p.h. at the time of Hurricane Hazel, October 15, 1954.

The dates of the last freeze in spring and of the first in autumn mark the limits of the growing season for most crops. The average growing season is 216 days. May 11, 1966, has been the latest date in spring when a temperature of 32° or lower was recorded; October 5, 1965, has been the earliest date in autumn.

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Meteorological Data For The Current Year

Station: RICHMOND, VIRGINIA # 13740 — R.E.BYRD INTERNATIONAL AP. — Standard time used: EASTERN — Latitude: 37° 30′ N — Longitude: 77° 20′ W — Elevation (ground): 164 feet — Year: 1979

Month	Temperature °F: Averages: Daily maximum	Daily minimum	Monthly	Extremes: Highest	Date	Lowest	Date	Degree days Base 65 °F: Heating	Cooling	Precipitation in inches: Water equivalent: Total	Greatest in 24 hrs.	Date	Snow, Ice pellets: Total	Greatest in 24 hrs.	Date	Relative humidity, pct.: Hour 01 (Local time)	Hour 07 (Local time)	Hour 13 (Local time)	Hour 19 (Local time)	Wind: Resultant: Direction	Speed m.p.h.	Average speed m.p.h.	Fastest mile: Speed m.p.h.	Direction	Date	Percent of possible sunshine	Average sky cover, tenths, sunrise to sunset	Number of days: Sunrise to sunset: Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, Ice pellets 1.0 inch or more	Thunderstorms	Heavy fog, visibility ¼ mile or less	Temperature °F: Maximum: (b) 90° and above	32° and below	Minimum: 32° and below	0° and below	Average station pressure mb: Elev. 177 feet m.s.l.
JAN	45.9	26.9	36.4	70	1	11	4	876	0	6.16	1.64	20-21	0.7	0.4	5-6	83	87	66	72	27	3.2	9.3	34	SW	21	53	6.6	9	3	19	14	0	1	4	0	4	26	0	1009.8
FEB	38.3	18.9	28.6	59	28	-8	10	1011	0	5.97	2.67	24-25	19.5	10.9	18-19	82	85	65	72	35	3.4	8.0	26	NW	19	58	7.1	7	5	16	11	4	1	2	0	9	23	2	1015.2
MAR	64.7	37.4	51.1	85	30	18	16	439	16	2.59	1.43	23-24	T	T	11	84	92	51	60	20	2.5	7.8	26	SW	14	72	6.0	7	12	12	7	0	2	1	0	0	10	0	1013.7
APR	70.4	46.4	58.4	85	1	30	7	218	30	3.97	1.47	13-14	0.0	0.0		82	86	54	63	32	1.4	8.2	29	NW	6	65	6.5	7	7	16	9	0	1	0	0	1	0	0	1010.5
MAY	77.8	56.4	67.1	87	9	44	6	44	117	3.80	1.04	18-19	0.0	0.0		95	94	63	74	19	1.8	7.6	23	SW	27	70	6.7	6	9	16	13	0	7	2	0	0	0	0	1009.8
JUN	82.2	59.4	70.8	92	18	48	15	4	168	2.42	1.38	3-4	0.0	0.0		90	91	60	68	16	1.6	7.1	24	N	11	74	6.5	6	10	14	9	0	2	1	4	0	0	0	1012.2
JUL	85.7	68.0	76.9	93	12	55	6	0	374	4.36	2.37	20-21	0.0	0.0		95	94	70	76	25	1.1	6.2	24	W	13	66	7.5	3	8	20	12	0	7	4	9	0	0	0	1010.8
AUG	87.4	68.1	77.8	97	10	55	16	0	404	7.08	2.50	11-12	0.0	0.0		91	93	63	77	27	0.9	6.6	43	NW	8	72	5.5	9	13	9	10	0	8	5	15	0	0	0	1010.8
SEP	78.8	63.2	71.0	89	6	53	20	8	195	9.76	3.25	21-22	0.0	0.0		92	93	70	84	06	2.0	7.1	30	S	5	58	6.6	9	3	18	13	0	4	6	0	0	0	0	1011.2
OCT	70.0	46.5	58.3	84	22	31	27	242	42	3.87	1.09	9-10	T	T	10	94	95	57	83	23	2.5	6.8	23	SW	5	75	4.5	15	9	7	9	0	3	2	0	0	1	0	1010.2
NOV	65.0	41.5	53.3	79	2	23	30	353	9	5.50	1.80	10-11	0.0	0.0		88	92	58	80	24	1.2	7.6	33	W	26	67	5.2	12	6	12	8	0	1	0	0	0	5	0	1013.9
DEC	53.7	30.8	42.3	72	12	16	18	698	0	1.64	0.65	6	T	T	20	83	86	55	74	29	1.5	7.0	28	N	17	63	5.3	12	5	14	4	0	0	1	0	0	22	0	1014.9
YEAR	68.3	47.0	57.7	97	AUG 10	-8	FEB 10	3893	1375	57.12	3.25	SEP 21-22	20.2	10.9	FEB 18-19	88	91	61	74	26	0.9	7.4	43	NW	AUG 8	67	6.2	102	90	173	119	4	36	29	28	13	88	2	1011.9

Normals, Means, And Extremes

Month	Temperatures °F: Normal: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	Normal Degree days Base 65 °F: Heating	Cooling	Precipitation in inches: Water equivalent: Normal	Maximum monthly	Year	Minimum monthly	Year	Maximum in 24 hrs.	Year	Snow, Ice pellets: Maximum monthly	Year	Maximum in 24 hrs.	Year	Relative humidity pct.: Hour 01 (Local time)	Hour 07 (Local time)	Hour 13 (Local time)	Hour 19 (Local time)	Wind: Mean speed m.p.h.	Prevailing direction	Fastest mile: Speed m.p.h.	Direction	Year	Pct. of possible sunshine	Mean sky cover, tenths, sunrise to sunset	Mean number of days: Sunrise to sunset: Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, Ice pellets 1.0 inch or more	Thunderstorms	Heavy fog, visibility ¼ mile or less	Temperatures °F: Max.: (b) 90° and above	32° and below	Min.: 32° and below	0° and below	Average station pressure mb: Elev. 177 feet m.s.l.
(a)				50		50					42		42		42		42		42		45	45	45	45	31	15	29	29		29	34	34	34	34	42	42	42	50	50	50	50	50	7
J	47.4	27.6	37.5	80	1950	-12	1940	853	0	2.86	7.97	1978	1.08	1951	3.31	1962	28.5	1940	21.6	1940	77	81	57	69	8.0	S	43	NW	1971	52	6.4	8	7	16	11	1	*	3	0	3	21	*	1012.2
F	49.9	28.8	39.4	83	1932	-10	1936	717	0	3.01	5.97	1979	0.48	1978	2.67	1979	19.5	1979	10.9	1979	74	79	52	63	8.5	NNE	45	SW	1951	56	6.1	9	6	13	9	1	*	2	0	2	19	*	1012.0
M	58.2	35.5	46.9	93	1938	11	1960	569	8	3.38	8.04	1975	0.94	1966	2.04	1942	19.7	1960	12.1	1962	74	78	49	59	8.9	W	42	SE	1952	59	6.2	8	9	14	11	1	1	2	*	*	10	0	1010.9
A	70.3	45.2	57.8	96	1976	25	1977	226	10	2.77	5.32	1952	0.64	1963	2.60	1978	2.0	1940	2.0	1940	74	75	45	55	8.8	S	40	NW	1972	64	6.1	8	9	13	9	*	2	2	1	0	2	0	1010.1
M	78.4	54.5	66.5	100	1941	31	1956	64	111	3.42	8.87	1972	0.87	1965	2.53	1972	0.0		0.0		84	79	51	65	7.7	SSW	45	N	1962	64	6.3	7	10	14	11	0	6	2	3	0	*	0	1008.9
J	85.4	62.9	74.2	104	1952	40	1967	0	276	3.52	9.24	1938	0.91	1960	4.61	1963	0.0		0.0		87	82	54	68	7.2	S	52	NW	1952	67	6.0	7	12	11	10	0	7	2	9	0	0	0	1010.2
J	88.2	67.5	77.9	105	1977	51	1965	0	400	5.63	18.87	1945	0.52	1963	5.73	1969	0.0		0.0		89	85	57	72	6.6	SSW	56	NW	1955	65	6.2	7	12	12	11	0	9	2	13	0	0	0	1010.2
A	86.6	65.9	76.3	102	1953	46	1934	0	350	5.06	14.10	1955	0.52	1943	8.79	1955	0.0		0.0		91	89	57	76	6.3	S	54	W	1964	65	6.0	7	12	12	10	0	7	3	11	0	0	0	1011.8
S	80.9	59.0	70.0	103	1954	35	1974	21	171	3.58	10.98	1975	0.26	1978	3.82	1955	0.0		0.0		90	90	57	79	6.5	S	45	SE	1952	63	5.7	9	9	12	8	0	3	3	4	0	0	0	1011.6
O	71.2	47.4	59.3	99	1941	21	1962	203	27	2.94	9.39	1971	0.30	1963	6.50	1961	T	1979	T	1979	87	90	53	77	6.8	NNE	68	SE	1954	60	5.3	12	7	12	7	0	1	3	*	0	2	0	1012.7
N	60.6	37.3	49.0	86	1974	10	1933	480	0	3.20	7.64	1959	0.36	1965	4.07	1956	7.3	1953	7.3	1953	80	85	50	70	7.3	S	38	NW	1977	56	5.7	10	7	13	8	*	1	2	0	*	10	0	1013.3
D	49.1	28.8	39.0	80	1971	-1	1942	806	0	3.22	7.07	1973	0.72	1965	3.16	1958	12.5	1958	7.5	1966	78	82	55	70	7.5	SW	40	SW	1968	52	6.1	10	6	15	9	1	*	3	0	2	21	*	1012.6
YR	68.8	46.7	57.8	105	JUL 1977	-12	JAN 1940	3939	1353	42.59	18.87	JUL 1945	0.26	SEP 1978	8.79	AUG 1955	28.5	JAN 1940	21.6	JAN 1940	82	83	53	69	7.5	S	68	SE	OCT 1954	61	6.0	102	106	157	113	4	37	29	42	6	86	1	1011.4

Means and extremes above are from existing and comparable exposures. Annual extremes have been exceeded at other sites in the locality as follows: Highest temperature 107 in August 1918; minimum monthly precipitation 0.11 in November 1890 and earlier.

(a) Length of record, years, through the current year unless otherwise noted, based on January data.
(b) 70° and above at Alaskan stations.
* Less than one half.
T Trace.

NORMALS - Based on record for the 1941-1970 period.
DATE OF AN EXTREME - The most recent in cases of multiple occurrence.
PREVAILING WIND DIRECTION - Record through 1963.
WIND DIRECTION - Numerals indicate tens of degrees clockwise from true north. 00 indicates calm.
FASTEST MILE WIND - Speed is fastest observed 1-minute value when the direction is in tens of degrees.

Average Temperature

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
1940	24.2	38.2	43.3	52.4	65.0	74.7	76.0	73.6	66.2	55.8	47.4	42.5	54.9
1941	35.2	34.2	40.8	59.8	66.8	73.0	78.3	75.8	72.2	64.7	48.7	41.9	57.6
#1942	34.2	35.2	48.0	58.8	69.5	75.2	79.4	75.2	71.3	60.8	50.0	37.1	57.9
1943	40.0	41.5	47.0	53.9	69.0	79.2	78.5	78.4	68.4	57.3	47.5	38.6	58.3
1944	38.6	40.4	45.2	56.2	71.6	76.4	77.7	75.4	71.2	57.9	48.2	36.1	57.9
1945	34.2	40.8	58.6	61.4	63.9	75.7	76.2	75.2	73.6	57.8	49.6	33.4	58.4
#1946	38.0	41.7	53.8	57.2	65.8	72.8	75.4	72.6	70.0	60.9	52.9	43.4	58.8
1947	44.6	33.5	40.0	57.5	67.0	72.2	74.8	78.5	70.1	63.7	46.4	38.4	57.2
1948	31.1	39.8	50.8	57.7	66.3	74.4	78.2	75.7	68.6	56.2	52.9	42.0	57.8
1949	45.2	46.5	48.6	55.7	66.0	75.2	80.1	76.6	67.4	62.5	49.0	42.4	59.6
#1950	49.7	40.7	44.4	54.7	65.0	74.2	76.8	75.5	68.2	61.2	47.3	36.1	57.8
1951	40.8	41.3	46.8	56.6	64.6	74.3	78.6	76.0	70.0	61.6	44.7	42.0	58.1
1952	42.4	42.2	46.3	58.1	65.4	77.6	80.4	76.4	69.2	55.2	49.4	39.2	58.5
1953	42.9	43.4	48.3	58.0	71.5	75.2	79.9	77.3	70.0	60.7	48.5	42.5	59.9
1954	38.0	44.9	47.0	61.2	63.0	74.6	78.6	76.8	74.4	62.3	46.1	38.2	58.8
1955	35.8	40.1	50.2	60.8	67.2	70.1	81.3	78.7	70.6	59.5	46.4	34.8	58.0
1956	36.0	43.0	46.3	55.5	65.0	74.7	77.8	76.5	67.9	60.9	47.6	48.9	58.3
1957	35.2	43.3	47.2	61.5	67.8	76.2	78.4	74.6	71.9	54.6	50.3	43.0	58.7
1958	34.6	33.8	42.3	57.5	65.7	71.3	80.2	76.4	69.1	58.7	51.2	33.4	56.2
1959	37.5	41.6	47.3	59.3	69.4	74.8	77.9	79.0	70.8	61.4	47.3	41.6	59.0
1960	38.8	39.3	35.9	61.8	64.9	73.7	76.3	77.5	69.3	57.1	50.1	34.6	56.6
1961	33.5	42.2	50.8	53.0	63.6	72.8	78.5	77.1	73.5	58.1	50.1	37.1	57.5
1962	36.6	39.7	45.0	57.5	70.6	74.0	74.8	74.6	66.2	60.5	47.2	36.1	56.9
1963	35.9	33.3	50.8	59.2	64.0	72.0	76.1	75.7	65.5	58.6	50.1	32.4	56.1
1964	38.1	37.2	47.6	55.4	66.4	73.1	75.8	73.1	67.1	53.4	51.5	42.9	56.8
1965	35.6	38.8	43.0	53.9	69.6	70.7	74.9	75.9	70.7	56.1	48.2	41.3	56.6
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	46.5	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
RECORD MEAN	37.6	39.2	47.1	57.0	66.2	73.9	77.6	76.3	70.1	58.8	48.8	39.7	57.7
MAX	47.5	49.9	58.6	69.6	78.0	85.1	88.0	86.5	80.9	70.7	60.3	49.9	68.8
MIN	27.6	28.4	35.6	44.4	54.3	62.7	67.2	66.1	59.2	46.8	37.2	29.4	46.6

Heating Degree Days

RICHMOND, VA

Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
1959-60	0	0	36	217	530	717	807	737	894	184	88	2	4212
1960-61	0	0	24	257	439	936	971	632	461	390	106	7	4223
1961-62	0	0	27	218	459	860	875	702	623	276	32	0	4072
1962-63	0	0	73	175	526	891	897	882	434	218	102	1	4199
1963-64	0	0	71	197	439	1004	826	801	537	306	74	12	4267
1964-65	0	0	32	352	402	676	909	726	674	339	17	34	4161
1965-66	0	6	25	275	498	726	1043	759	538	371	133	27	4401
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							

Cooling Degree Days

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	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

Precipitation

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
1940	4.16	2.99	2.31	4.22	4.26	4.02	4.45	9.33	1.77	2.27	4.59	1.83	46.20
1941	2.19	1.17	1.97	3.44	1.31	1.83	2.82	3.05	1.23	0.35	0.66	2.89	22.91
#1942	3.59	1.03	5.31	0.78	1.11	5.30	3.52	6.61	3.71	6.74	1.31	3.04	42.05
1943	2.87	2.27	3.01	2.11	4.04	3.15	3.87	0.52	5.13	2.90	1.44	1.98	33.29
1944	2.83	5.61	5.85	3.59	1.41	1.42	7.76	6.44	5.50	1.79	3.94	2.26	48.40
1945	2.25	3.57	1.33	3.50	5.09	1.71	18.87	2.92	8.49	0.91	3.09	5.28	57.01
#1946	2.16	2.69	2.23	2.59	7.73	6.01	6.64	3.87	4.39	2.36	1.90	2.71	45.28
1947	4.31	1.43	2.22	2.53	4.69	4.48	3.33	1.87	6.38	2.37	7.03	1.56	42.20
1948	4.11	2.66	5.54	4.59	6.42	2.73	4.05	7.75	3.05	3.21	5.74	4.14	53.99
1949	3.26	2.55	2.12	2.22	5.11	3.53	6.34	8.99	2.64	3.87	1.88	1.94	44.45
#1950	2.17	1.71	3.20	0.74	4.27	0.99	6.69	3.32	4.04	1.77	1.74	2.73	33.37
1951	1.08	1.90	2.85	2.26	2.51	5.85	2.63	5.23	0.98	2.71	4.52	3.63	36.15
1952	5.71	2.76	5.05	5.32	3.72	4.50	2.71	6.41	2.35	2.04	6.42	3.37	50.36
1953	4.47	3.36	3.95	3.16	2.35	3.06	2.04	0.99	6.84	2.16	1.85	2.94	37.17
1954	3.70	1.56	2.44	3.08	4.36	1.09	1.30	3.95	0.69	4.99	1.86	2.43	31.45
1955	1.09	3.18	2.66	3.14	1.79	3.06	7.93	14.10	5.79	2.57	1.76	0.86	47.93
1956	1.65	3.57	3.06	2.75	4.35	3.28	10.32	2.28	2.96	4.92	6.11	3.98	49.23
1957	3.36	5.29	2.82	2.25	2.75	3.92	1.80	7.46	3.43	5.35	5.30	6.88	50.61
1958	2.96	4.38	3.81	4.35	5.79	6.09	3.27	9.77	1.90	5.35	1.43	4.43	53.53
1959	1.31	1.87	2.92	4.32	2.44	3.45	12.85	5.75	3.30	3.25	7.64	2.24	51.34
1960	2.13	4.56	3.29	3.57	3.59	0.91	7.34	7.20	6.21	3.31	0.85	3.04	46.00
1961	2.57	5.39	4.02	1.73	4.83	6.49	2.85	3.90	1.64	8.78	1.81	5.05	49.06
1962	5.95	3.00	4.87	3.80	4.08	5.57	5.65	2.37	3.46	0.50	6.73	2.64	48.62
1963	1.55	2.98	5.62	0.64	2.39	7.01	0.52	3.75	3.20	0.30	6.70	2.80	37.46
1964	4.16	4.46	2.61	2.71	1.14	2.40	6.46	9.88	2.56	3.62	1.98	3.05	45.03
1965	2.51	2.77	3.68	2.13	0.87	3.39	6.33	0.81	4.81	1.38	0.36	0.72	29.76
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
RECORD MEAN	3.13	3.01	3.47	2.84	3.66	3.75	5.58	5.05	3.70	3.34	3.21	3.23	43.97

Snowfall

Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total
1940-41	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.6	5.2	0.0	0.0	0.0	9.2
1941-42	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	5.5
#1942-43	0.0	0.0	0.0	0.0	0.0	0.0	6.0	T	0.0	4.6	0.0	0.0	10.6
1943-44	0.0	0.0	0.0	0.0	0.5	1.4	2.5	1.6	0.0	0.0	0.0	0.0	6.0
1944-45	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5
#1945-46	0.0	0.0	0.0	0.0	0.0	8.2	6.0	0.0	0.0	0.0	0.0	0.0	14.2
1946-47	0.0	0.0	0.0	0.0	0.0	0.3	T	9.3	13.5	0.0	0.0	0.0	23.1
1947-48	0.0	0.0	0.0	0.0	T	T	16.1	10.1	0.0	0.0	0.0	0.0	26.2
1948-49	0.0	0.0	0.0	0.0	0.0	0.6	1.5	T	T	0.0	0.0	0.0	2.1
#1949-50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.9	0.0	0.0	0.0	8.8
1950-51	0.0	0.0	0.0	0.0	T	0.7	T	T	T	T	0.0	0.0	0.7
1951-52	0.0	0.0	0.0	0.0	T	T	2.4	11.0	T	0.0	0.0	0.0	13.4
1952-53	0.0	0.0	0.0	0.0	1.0	T	T	T	5.6	0.2	0.0	0.0	6.8
1953-54	0.0	0.0	0.0	0.0	7.3	0.0	7.5	0.0	0.0	T	0.0	0.0	14.8
1954-55	0.0	0.0	0.0	T	0.0	2.2	9.3	1.4	0.0	0.0	0.0	0.0	12.9
1955-56	0.0	0.0	0.0	0.0	T	T	1.1	T	T	T	0.0	0.0	1.1
1956-57	0.0	0.0	0.0	0.0	T	T	5.8	0.7	T	1.2	0.0	0.0	7.7
1957-58	0.0	0.0	0.0	0.0	T	2.9	3.7	7.7	6.3	0.0	0.0	0.0	20.6
1958-59	0.0	0.0	0.0	0.0	0.0	12.5	2.4	0.0	0.0	0.0	0.0	0.0	14.9
1959-60	0.0	0.0	0.0	0.0	T	1.2	2.5	8.9	19.7	0.0	0.0	0.0	32.3
1960-61	0.0	0.0	0.0	0.0	0.0	1.7	7.2	5.0	T	0.0	0.0	0.0	13.9
1961-62	0.0	0.0	0.0	0.0	T	0.9	20.6	1.2	16.2	0.0	0.0	0.0	38.9
1962-63	0.0	0.0	0.0	0.0	0.9	8.1	1.6	6.3	T	0.0	0.0	0.0	16.9
1963-64	0.0	0.0	0.0	0.0	T	0.4	5.7	10.2	7.0	1.2	0.0	0.0	24.5
1964-65	0.0	0.0	0.0	0.0	0.4	0.0	12.4	6.6	1.0	0.0	0.0	0.0	20.4
1965-66	0.0	0.0	0.0	0.0	0.0	T	26.2	3.0	0.0	0.0	0.0	0.0	29.2
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	0.0	9.9	T	5.0	T	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							
RECORD MEAN	0.0	0.0	0.0	T	0.4	2.0	5.0	3.8	2.8	0.1	0.0	0.0	14.1

# Indicates a station move or relocation of instruments. See Station Location table.

Record mean values above are means through the current year for the period beginning in 1930 for temperature, 1938 for precipitation and snowfall. Data are from airport locations.

STATION LOCATION

RICHMOND, VIRGINIA

Location	Occupied from	Occupied to	Airline distance and direction from previous location	Latitude North	Longitude West	Elevation above Sea level: Ground at temperature site	Elevation above Ground: Wind instruments	Extreme thermometers	Psychrometer	Sunshine Switch	Tipping bucket rain gage	Weighing rain gage	8" rain gage	Hygrothermometer	Automatic Observing Equipment *	Remarks
COOPERATIVE																
High elevation in East Richmond	1/1880	2/1893				Est. 150										W. H. Pleasants; exact address unknown.
Near Southern RR Bridge	3/1893	3/1895				Est. 35										A. J. Duesberry, River Observer.
Westbrook Farms	4/1895	10/1897	4 mi. N	27° 36'	77° 24'	196										Capt. J. C. Shafer; temperatures only
CITY																
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 Building, Ninth & Main Streets	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.
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.
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 Building	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	Present	4/5 mi. N	37° 30'	77° 20'	c164	b20	d6	d6	%60	e19	f19	e19	a4	NA	

* Type
M = AMOS
T = AUTOB

a - At this site 9/24/42 to 4/19/46 and after 6/1/50.

- 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.

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.
% - Commissioned 11/19/63.
f - Effective 1/1/80.

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I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

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