### U. S. DEPARTMENT OF COMMERCE

CHARLES SAWYER, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

# LOCAL CLIMATOLOGICAL SUMMARY

#### WITH COMPARATIVE DATA

1950

RICHMOND, VIRGINIA

Compiled under the direction of

S. S. Schworm



37° 32' N. LATITUDE 77° 25' W. LONG ITUDE ELEVATION (ground) 162 feet

## METEOROLOGICAL DATA FOR THE CURRENT YEAR

RICHMOND, VIRGINIA

			Temp	eratur	ne e						Precipit	ation				Relat humi	tive dity	1		w	ind								Num	per of o	lays				
Month	A	verage	95		Extr	emes						Snow	, Sleet, l	Hail`	EST	EST	EST	EST	† To	†	Fastes	st mile	ossible	y cover	Sunr	ise to s	unset	nore	Hail	rms		Max.	temp.	Min.	temp.
	Daily maximum	Daily minimum	Monthly	Highest	Date	Lowest	Date	Degree day	Total	Greatest in 24 hrs.	Date	Total	Greatest in 24 hrs.	Date	g,	ď,	Ď.	7:30 p, E	Average hourly spee	Prevailing direction		Urrection Date	Percent of p	Average sky	Clear	Partly cloudy	Cloudy	Precipitation .01 inch or 1	Snow, Sleet, 1.0 or more	Thundersto	Heavy fog	90° and above	32° and below	32° and below	Zero and below
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.	60.5 50.5 56.0 66.8 74.9 84.6 84.6 76.6 72.3 59.6 45.7	33.0 34.5 43.7 56.2 63.5 67.8 66.0 51.9	50.7 41.8 45.3 55.3 65.6 74.0 76.2 75.3 68.4 62.1 48.0 37.4	64 81 83 95 99 92 94 92 87 87	26 22 27 23 6 27 3 2 3 31	24 17 18 27 40 51 62 56 42 39 16	21 27 3 14 9 5 22 14 26 27 25 27	452 645 606 310 66 0 0 54 119 519 849	2.51 1.65 3.37 0.75 5.21 1.15 7.92 3.54 3.99 1.89 1.27 3.15	0.97 0.38 1.28 0.39 1.76 1.86 1.60 0.85	20-21 20 22	5.0 0.0 T 0.0 0.0 0.0	0.0 T 0.0 0.0 0.0 0.0	17 25-26 16-17 6+ 25 10-11	80 81 70 71 92 87 95 89 92 90 77	80 84 75 75 86 79 88 88 92 93 82 80	60 59 45 43 60 52 60 55 64 61 46 55	72 70 56 54 78 66 80 78 87 81 66 71	8.2 7.7 5.3 7.3	SSW 3 SSW 3 SSW 3 SSW 3 SSW 2 NNE 2 NNE 2	4 S 3 S 3 N 4 S	W 10 SW 22 SW 8 SW 1 SW 23 SW 13 W 4 NE 23 NW 14 W 13 SW 25 SE 7	46 49 63 71 48 70 65 63 29 48 61 58	7.5 6.8 5.7 5.9 7.7 5.5 7.6 6.4 8.3 5.8 6.0	5 10 8 4 8 3 4 0 8	4 9 7 12 5 13 6 15 8 13 5 7	22 14 14 10 22 9 22 12 22 10 15	10 12 10 5 16 7 15 8 9 6 5 8	0 2 1 0 0 0 0 0 0 0 0	0 1 0 10 5 11 7 7 0 2	0 1 0 0 3 1 3 6 1 2 0	0 0 0 1 6 7 6 3 0 0	0 0 0 0 0 0 0 0 0 0	7 13 15 4 0 0 0 0 0 0 13 22	0 0 0 0 0 0 0 0
Year	68.1	48,6	58.3	99	June 27	16	Nov. 25+	3620	36.40	1.86	Aug. 20	10.8		Mar. 16-17	83	84	55	72	7.4	SSW 3	7 5	Mar SW 8	56	6.6	75	104	186	111	4	44	17	23	2	74	o

### MEANS AND EXTREMES FOR PERIOD OF RECORD

$\Box$			T	empe	ratur	e						-		Pre	cipita	tion						l h	Relativ numid	ve ity		,	Wind			ine				Mea	num a	ıber c	of da	ys		
		Mean	.8			Extr	emes		e days									Snov	v, Sleet	, Hail		EST	EST	EST	-0		Fa	stest m	ile	sunsh	sunset		rise t		more t, Hail			Ma: tem	k. M p. ter	lin. mp.
Month	Daily maximum	Daily		Monthly	Record highest	Year	Record	Year	Mean degre	Mean total	Maximum monthly	Year	Minimum monthly	Year	Maximum in 24 hrs.		Mean total	Maximum monthly	Year	Maximum in 24 hrs.	Year	a,	7:30 a, E	30 p;	ean 7 spe	Prevailing direction	Speed	Direction	Year	8 4	sunrise to	Clear	cloudy	Cloudy	Ol inch or Snow, Sleet	ğ b	15	-	32° 33° 11 > 11	1
(a)	53	5:	3	71	53		53		53	79	79		79		53		53	53		53		12	53 3	33 39	53		53	53	ļ	18	52	53	53	53	53 5	52 53	53	53	53 53	53
J F M A J J A S O N D	48.0 49.0 58.5 67.5 77.3 84.1 87.5 85.7 80.5 70.6 59.1 48.8	55. 64.: 68. 67. 61.	1 40 7 47 7 56 7 66 2 74 4 78 1 76 6 60 1 49	).2 7.6 5.9 5.8 1.6 3.0 1.0 0.0	82 94 96 98 104 105 107 101 99 83	1930 1907 1925 1941 1936 1936 1932 1941 1946	- 3 12 19 35 43 52 49 40 28 14	1918 1899 1943 1923 1923 1938 1933 1942 1917	718 530 276 70 7 * 1 27 190 481	3.01 3.66 3.39 3.79 3.82 4.74 4.66	8.78 8.89 9.13 9.28 16.08 11.42 10.41 8.51 6.69	1873 1891 1889 1938 1945 1931 1888 1890 1920	0.55 1.07 0.52 0.45 1.15 0.57 0.45 0.15 0.11	1901 1930 1942 1930 1950 1911 1896	3.30 3.59 5.33 2.39 3.69 7.26 5.71 6.68 4.81 2.77	1920 1903 1910 1907 1938 1923 1931 1935 1929 1902	3.4 2.3 0.3 T T T 0.0 T	20.2 15.8 10.0 T T T 0.0 T 9.2	1940 1899 1914 1915 19024 19064 19104 19154 1925 1938 1908	12.6 7.8 10.0 T T T 0.0 T	1936 1914 1915 1902+ 1906+ 1915+ 1925 1938	90 90 90 87 81	78 77 74 76 78 81 84 85 84	54 63 51 59 52 64 55 68 57 73 58 74 57 75 54 72	8.5 9.2 8.7 7.3 6.6 6.2 6.3 6.9	5/	40	SW 1 NW 1 NW 1 SW 1 NW 1 NW 1 NW 1	943 933 917 922 915 917 917 9067	55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	.3 .1 .0 .2 .2 .2 .2 .3	10 11 11 12 10 10 10 12 14 12	8 9 10 11 13 12 9 8 8	13 10 11 10 9 9 8 9 9 10 13	11 10 11 10 12 11 11 11 10 7	1 * * 2 * 3 0 6 0 8 0 10 0 7 0 3 0 1 * * *	112322	00 * * 27 11 8 4 * 00	3 19 2 17 4 9 0 0 0 0 0 0 0 0 0 1 18	**00000000*
Year	68,1	48.	4 58	3.4	107	Aug. 1918	- 3	Feb. 1899	3874	41.84	16.08	July 1945	0.11	0ct. 1874+	7.26	July 1923	12.7	22.4	Jan. 1940	17.2	Dec. 1908	82	80	56 68	7.5		67 48		909	50 5	.1	133	112	120	121	2 40	16	32	7 71	*

<sup>(</sup>a) Length of record, years.

\* Less than one half.

- No record.

† Airport data.

City Office data.
Also on later dates, months, or years.
Trace, an amount too small to measure.

Unless otherwise indicated, dimensional units used in this bulletin are; temperature in degrees F.; precipitation and snowfall in inches; wind movement in miles per hour; and relative hundity in percent.

Sky cover is based on 0 for no clouds or obstructions to 10 for complete sky cover. Degree days are based on daily average temperatures of 65° F. Sleet and hail were included in smorfall totals, beginning with July 1948.

Data for earlier years may be obtained by contacting the Weather Bureau Office for which this summary was issued.

Heavy fog in the Means and Extremes Table also includes data referred to at various times in the past as "Dense" or "Thick". The upper visibility limit for heavy fog is 1/4 mile.

Below zero temperatures are preceded by a minus sign.

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#### AVERAGE TEMPERATURE

#### TOTAL PRECIPITATION

RICHMONT	, VIRGINIA
RICHMONT	

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct	Nov.	Dec.	An'l
1900	39.4	37.6	43.8	57,3	67.0	74.6	81.2	82.9	75,6	64.6	52.1	40.3	59.7
L901	38.8		49.6	52.8	65.5	74,8	81.0	77.4	70.0	59.1	44.1	38.6	57.2
1902		34.6		55,8			79.0		68,6		54.8	40.1	58.2
1903 1904	38.2	43.0 34.2		57.8 54.2	67.8 67.2		79.3 77.7		69,4 70.9			36.2 35.8	58.0 56.2
1905	35.0		49.8		69.4	74.2		75.8	71.7	59.4	48.2	40.4	57.6
1906 1907	43.1	38.6 35.0	42.0	59.1 50.4	67.0	75.0 68.4	76.6	78.2	73.6		50.0 47.8	41.4	58.5 57.0
908	38.1	36,6	52.2	60.0	67.2	72.9	78.9	74.0				41.2	58.4
909	42.2	47.4	46.4	57.6		76.2	76.8	74.2	67.4			35,9	58,2
910 911		39.4 41.0					77.8 79.6	74.6	71.8 72.5	61.0	42.5 45.0	34.1 43.2	57.2 58.5
912	28.9	35.0	44.9			72.2	77.8		73.0			43.2	57.2
913	46.7	40.0	52.0	57.8	66.6	73.8	79.0	75.2	69.0	60.2	50.2	42.2	59.4
914		35.0	41.8	56,0	68,6	1	76.9	77.6	1	61.8	48.0	35.7	57.3
915 916		43.7	40.6		66.0	72.0	78.0	76.2	72.4	61.3	49.2	37.7	58.0
917		38.8	43.4		69.7 61.2		77.5 76.8	76.1 75.8	68.2 65.2		48.5	38.8	57.7 55.3
918	28.0	41.2	51.7	54.7	70.4	71.0	73.8	78.3	65.6	62.2	47.8	43.2	57,3
919	40.6	39,8	49.5	56.6	66.1	73.2	77.6	75.0	71.3	67.2	48.8	35.9	58.5
920	34.2	35.5	48.2 57.6	55.2	60.8	72.4	75.4	75.2	71.0	62.0	47.2	41.0	56.5
921	35.0	42.0	49.4				80.0 77.6			59.5 60,8		41.0	60.2 58.4
923	40.1	37.0	48.0	55.8	64.4	76.0	76.4	75.2	70.8	57.7	46.8	47.6	58.0
924	38.0	38.2	45.6	54.0	62,8		75.2		'	"	48.8	40.5	56.4
925 926	36.6 37.8	47.4 41.8	48.9 43.0	59.2 54.5			79.6 77.6					38.6 37.8	58.5 57.1
927		45.9				69.4				61.4	53.1	41.0	58.1
928	38.9	40.4	47.4	54.2	64.1	72.8	78.4	78.0	65.8	61.4	50.4	41.0	57.7
	38.8	1	ł		i	73.1	i	75.1			1	41.4	58.4
1930 1931		45,3	46.4 42.3		68.8	74.2	79.8	76.1			48.1	36.8	58.7
932	39.7 49.8	41.5	43.9	54.4 55.0	65.5 65.1	73.8 74.1	80.4 79.1	78.8	74.4		55.9 46.8	47.8 42.4	59.5
933	45.6	41.2	46.4	56.8	70.1	75.8	76.2	76.6	74.4	58.7	47.4	43,2	59.4
934	42.4	29.0	43.4	56.8		l		76,0	72.3	58.0		39,6	57.9
935			52.2		63.8	74.4	77.6	76.2		59.9	52,4	33,3	57.3
936 937	33.0 46.4	34.6	52.4 44.7	54.0	66.6	74.2 76.4	79.9	79.0 77.6	73.6	61.8 56.4		41.4 40.0	58.3 58.0
938		44.8	53.2	59.7	65.6	72.0	77.1	79.0	69,0	59.2	52.0	40.8	59.2
939	42.3	45.5	49.4	56.8	67.8	77.0	76.2	77.8	72.8	60.6	46.6	41,4	59.5
940 941		39.9 36.1	44.6 42.0			75.4 74.4		74.4 78.0				44.4 43.9	56.4 59.3
942		36.8	49.2	60.2	70.7	75.8	80.0	75.4	72.0	61.2	50.8	37.7	58.9
943	40.4	42.2	47.6	54.2	69.2	79.0	78.4	78.8	69.2	58.2	48.6	39.4	58.8
944	ĺ	41.2	[	56.7	ĺ			75.7	71.8	[	1	37.0	[
945	35.0 39.0	41.8	58.6 54.9			75.6 73.3		75.6	74.4		51.1 54.2	34.6 44.7	59.0 59.7
947	45.2	34.2			67.4	72.9	75.6		71.2	64.6	47.0	39.4	58.0
1948	32.2	40.9	51.4	58.3	66.7	75.1	78.6	76,2	69.6	57.8	54.5	43.6	58,7
949	40.4	47.8	49.2	56.6	05.5	75.4	00.2	77.0	68.2	63.6	50.6	43.9	60.5
950	50.7	41.8	45.3	55.3	65.6	74.0	76.2	75.3	68.4	62.1	48 0	37 4	58 3

										<u> </u>			1930
Year	Jan.	Feb.	Mar.	Арт.	May	June	July	Åug.	Sept.	Oct.	Nov.	Dec.	Annual
1900	2,71	4.42	2.89	3.62	2.20	3.08	3.13	3.66	4.03	2.55	2.87	2.60	37.76
1901	2.80	0.55	3.79	5.29	3.80	2.32	5.06	6.99	3.21	0.79	1.37	6.08	42.05
1902	3,26	4.84	1.89	3.12	3.42	4.81	6.21	3.10	4.91	4.81	4.83	4.12	49.32
1903	3,61	5.02	8.14	4.46	3.36	5.73	5.17	3.21	1.60	3.44	1.40	2.28	47.42
1904	2,34	2.71	3.52	1.57	1.45	4.11	6.25	3.83	3.00	2.80	2.55	3.71	37.84
1905	2.47	4.14	2.18	3.06	4.09	3.72	3.25	4.01	2.61	1.24	0.51	7.10	38.38
1906	2.54	2.57	4.78	2.16	3.37	5.14	6.75	8.68	0.35	7.47	0.87	2.12	46.80
1907	1.22	2.30	2.91	4.87	5.78	6.21	2.99	5.31	6.51	2.30	4.64	3.44	48.48
1908	4.39	3.92	2.96	2.73	6.71	5.72	4.37	10.40	2.74	2.81	1.25	4.72	52.78
1909	3.00	2.94	4.13	3.21	3.41	4.59	1.25	4.01	2.89	0.77	0.62	3.39	34.21
1910	3.38	2.38	1.42	8.74	2.67	5.67	6.40	2.90	1,07	5.03	0.98	2.50	43.14
1911	3.65	2.20	2.15	4.00	0.60	2.83	0.57	7.26	1,85	3.61	4.33	3.95	37.00
1912	2.34	3.76	8.18	2.17	4.59	2.50	1.25	1.49	4,20	0.58	1.73	2.84	35.63
1913	2.53	1.51	3.53	2.54	4.80	3.78	3.65	4.59	3,20	3.95	1.49	2.17	37.74
1914	3.65	3.27	3.66	1.28	2.50	2.76	3.00	2.42	1,47	1.67	2.20	4.95	32.83
1915	5.41	3.92	1.10	1.68	3.00	3.77	2.42	7.34	1.99	3.27	0.63	1,93	36.46
1916	1.51	3.68	1.57	1.94	4.74	8.72	5.39	1.55	2.01	1.44	1.31	3,40	37.26
1917	2.98	2.28	5.97	2.56	4.59	5.31	6.28	2.74	4.62	3.78	0.44	1,72	43.27
1918	5.81	0.91	3.98	8.02	3.30	5.36	1.05	2.76	3.55	0.59	1.26	4,79	41.38
1919	3.64	2.22	3.51	3.25	5.19	3.90	9.92	2.62	0.54	1.71	1.31	2,30	40.11
1920	2.02	6.67	3.11	2.96	3.06	6.34	6.05	8,69	2.71	0.66	6.69	1.87	50.83
1921	3.80	3.52	2.13	4.65	3.89	1.49	2.36	0,61	0.95	1.20	2.97	3.02	30.59
1922	4.58	3.81	7.01	2.01	3.27	6.42	8.48	7,78	0.66	3.68	0.86	3.14	51.70
1923	4.61	3.09	5.88	3.96	1.16	2.09	10.87	6,41	4.25	2.16	2.20	2.28	48.96
1924	2.98	2.34	4.00	5.11	7.36	4.85	2.33	3,05	9.58	0.78	1.61	3.40	47.39
1925	5.42	0.90	2.47	2.33	2.15	2.24	2.32	2.55	0.93	4.67	1.55	3.89	31.42
1926	3.30	3.60	1.96	2.01	1.59	2.19	7.17	5.24	1.46	0.81	3.63	4.56	37.52
1927	0.70	2.87	1.95	3.47	3.30	3.12	9.10	7.19	4.01	2.02	1.61	5.02	44.36
1928	2.23	1.84	2.71	6.86	1.99	7.19	1.95	8.05	7.01	0.40	1.20	1.46	42.89
1929	1.53	5.19	3.96	3.50	4.00	3.02	2.16	2.41	2.41	6.99	3.34	2.70	41.21
1930	4.25	1.21	1.07	3.19	2.71	5.18	4.51	2.35	1.37	1.31	1.63	2.48	31.26
1931	1.88	2.60	2.94	3.97	5.64	2.98	4.47	11.42	1.92	1.15	0.24	2.52	41.73
1932	5.64	1.66	6.21	1.69	4.17	3.17	1.66	1.36	0.75	6.58	3.50	4.84	41.23
1933	3.85	2.73	2.15	4.02	4.84	1.63	4.59	8.84	1.05	0.72	1.17	3.14	38.73
1934	1.63	5.34	4.36	2.10	4.83	3.65	3.22	3.22	5.92	0.82	3.34	2.32	40.75
1935	4.41	2.13	4.00	4.40	3.81	6.22	5.64	3.68	9.23	1.73	3.19	2.12	50.56
1936	7.76	3.92	3.83	2.68	0.45	3.88	3.18	2.90	1.43	1.68	0.92	4.34	36.93
1937	10.08	2.42	1.66	6.02	1.64	6.02	6.00	9.85	2.61	6.34	2.44	0.90	55.98
1938	2.96	1.89	3.57	2.80	4.66	9.28	9.71	2.44	3.85	1.58	3.61	2.61	48.96
1939	2.64	3.87	4.39	3.00	1.80	4.99	4.33	5.84	1.56	4.33	2.41	1.50	40.66
1940	3.09	2.81	2.09	5.19	4.65	3.78	3.52	11.08	1.55	2.02	4.58	1.56	45.93
1941	2.32	1.14	2.43	3.23	1.88	2.08	3.51	3.86	2.20	0.75	0.46	2.96	26.83
1942	4.33	1.11	5.15	0.52	3.57	4.75	4.31	5.73	3.05	7.38	1.23	3.05	44.10
1943	3.19	1.93	4.49	2.16	3.11	4.07	5.08	0.80	3.60	2.11	1.70	2.17	34.43
1944	2.90	5.40	5.67	3.32	1.12	1.29	5,51	5.16	3.74	1.76	3.77	2.14	41.70
1945	2.22	3.28	1.39	2.90	5.35	1.43	16.08	2.67	6,44	1.06	3.12	5.78	51.72
1946	2.29	2.52	2.39	3.07	7.59	4.14	8.43	3.15	1,80	2.15	1.78	3.08	42.39
1947	3.86	2.01	2.30	2.20	3.47	4.49	2.87	2.52	7.03	1.81	5.17	1.47	39.20
1948	4.69	2.61	4.98	4.60	5.47	1.95	5.79	6.38	3.05	3.27	5.43	4.29	52.51
1949	3.25	2.50	2.34	2.31	6.11	4.65	4.25	8.56	3.46	5.36	2.24	1.84	46.83
1950	2.51	1.65	3.37	0.75	5.21	1.15	7.92	3.54	3.99	1,89	1.27	3.15	36.40

# MONTHLY AND SEASONAL DEGREE DAYS

	Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total	
	1899-1900	0	0	34	156	447	769	794	778	657	252	49	3	3937	
	1900-01	Ō	Ò	4	97	400	766	812	848	474	366	50	Ĭ	3818	
	1901-02	Ō	Ιō	33	201	627	815	893	854	468	315	51	ô	4257	
	1902-03	Ò	Ó	29	128	308	775	834	616	333	240	55	10	3328	
	1903-04	0	0	33	227	606	893	980	893	543	338	42	6	4561	
		1								-		•~	1		
	1904-05	0	1	28	265	564	905	930	946	467	251	18	5	4380	
	1905-06	0	0	15	221	504	760	676	742	716	210	69	7	3920	
	1906-07	0	0	8	244	457	732	686	840	455	446	122	58	4048	
•	1907-08	0	0	14	294	516	713	834	792	405	195	115	3	3881	
	1908-09	0	16	24	167	438	738	704	484	583	262	86	0	3502	
													_		
	1909-10	0	0	43	299	358	902	806	717	370	210	113	29	3847	
	1910-11	1	0	12	184	675	958	719	672	632	382	68	0	4303	
	1911-12	0	0	3	192	603	673	1122	873	626	180	54	13	4339	
	1912-13	0	0	20	184	507	676	568	700	419	237	48	26	3385	
	1913-14	0	0	38	179	444	707	717	843	719	294	52	ō	3993	
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	1914-15	0	1	71	138	516	911	794	596	756	230	60	24	4097	
	1915-16	0	0	32	146	474	846	655	763	670	296	22	1	3905	
	1916-17	0	0	47	203	498	809	778	764	574	261	171	4	4109	
	1917-18	0	0	75	327	619	1082	1151	666	431	312	31	5	4699	
	1918-19	0	0	68	137	514	671	755	709	476	255	70	6	3661	
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	1919-20	0	0	12	86	496	898	954	854	522	312	158	7	4299	
	1920-21	0	0	6	133	532	745	777	643	271	176	128	1	3412	
	1921-22	0	0	0	180	412	746	929	647	490	249	29	1	3683	
	1922-23	0	0	19	192	482	703	774	784	534	292	80	7	3867	
	1923-24	0	6	24	229	546	544	838	780	606	332	104	11	4020	
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	1924-25	0	0	55	205	488	763	881	492	500	240	163	0	3787	
	1925-26	0	0	12	333	549	817	846	646	683	333	69	30	4318	
	1926-27	1	0	15	203	561	845	842	534	474	362	71	39	3947	
	1927-28	0	11	26	164	363	744	807	711	544	338	103	2	3813	
	1928-29	0	1	80	169	445	743	816	751	411	206	83	10	3715	

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1929-30	0	0	40	224	477	736	789	556	572	303	33	4	373
1930-31	0	1	0	268	507	876	786	660	704	318	74	6	420
1931-32	0	5	17	149	284	535	479	548	650	303	87	i	305
1932-33	0	0	15	170	540	699	601	667	566	250	38	14	356
1933-34	0	0	4	211	530	676	703	1011	670	253	61	0	411
1934-35	0	3 ·	1	222	423	790	901	713	399	357	98	١٥	390
1935-36	. 0	0	27	189	390	984	991	884	393	353	28	0	423
1936-37	0	0	13	157	529	730	573	724	632	273	49	0	368
1937–38	0	0	58	298	515	780	828	566	380	207	84	8	372
1938-39	0	0	31	198	409	747	697	548	502	283	101	0	351
1939-40	0	0	3	214	550	737	1172	726	634	343	49	1	442
1940-41	1	0	62	237	467	640	871	806	715	192	63	8 1	406
1941-42	0	0	7	100	413	657	875	785	490	199	7	ō	353
1942-43	0	2	49	135	430	843	767	640	548	343	60	0	381
1943-44	0	0	46	229	493	797	787	687	608	269	14	1	393
1944-45	0	1	16	213	483	865	930	648	268	153	113	27	371
1945-46	0	0	3	193	423	945	809	624	320	232	64	4	361
1946-47	0	4	11	131	332	626	613	862	727	229	83	4	362
1947-48	0	0	77	78	544	793	1012	697	451	227	39	1	391
1948-49	0	0	28	240	326	662	577	487	508	265	55	1	314
1949-50	0	0	36	105	433	660	452	645	606	310	66	0	331
1950-51	0	0	54	119	519	849			***			٠,١	-
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#### MONTHLY AND SEASONAL SNOWFALL

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Season	July	Āug.	Sept.	.Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total		Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mas.	Apr.	May	June	Total
1899-1900 1900-01 1901-02 1902-03 1903-04	0	0	0	0	0 T 0 0	2.1 7.2 1.0 1.1 0.9	5.5 5.0 0.9	6.2 1.0 9.8 0.2 8.4	5.8 1.4 0 0	T T O	0 0 0	0	14.4 15.1 15.8 2.2 20.4		1929-30 1930-31 1931-32 1932-33 1933-34	0 0 0	0	0 0 0 0	0 0 0 0	0	3,0 6.0 1.0 7.5 0.1	9.6 1.5 0.6 1.7	2.5 T T 5.7	0 T 2.6 T 2.4	0 0 0	0 0 0 0	0 0 0 0	18.9 7.5 4.2 14.9 15.9
1904-05 1905-06 1906-07 1907-08 1908-09	0		0	0	1.8 T 1.9 T	8.5 1.3 T T 17.2	0.7 3.1 3.2	7.0 9.8 7.8	T 6.4 6.4 2.8 3.8	T 0 T 0	0	0	19.0 15.4 21.2 13.8 25.3		1934-35 1935-36 1936-37 1937-38 1938-39	0000	0 0	0	0 0 0	T O	3,9 12,3 T 1,2 T	5.8 3.0 0 0.5 1.2	0.1 13.3 3.5 T	T 0 1.6 0 0,3	0.2 T 0 0	0 0 0	0 0 0 0	10.0- 28.6 5.1 1.7 10.7
1909-10 1910-11 1911-12 1912-13 1913-14	0000	i d	0	0	7 0 0 2.0 0	3.3 0.7 T 0.2	2.6 8.9	Т	4.0 11.0	0	0	0	21,6		1939-40 1940-41 1941-42 1942-43 1943-44	0000	0	0	0 0 0 0	0	3.3 T 0 7.3 4.5	22.4 0.3 5.2 0.1 3.4	0.5 3.3 T T 2.0	0.3 5.9 T 6.0	2.5 0 0 T 0	0 0 0 0	0 0 0 0	29.0 9.5 5.2 13.4 10.2
1914-15 1915-16 1916-17 1917-18 1918-19	0 0	0	0	0	0 0 T T	5.4 0.6 9.1 15.3	2.6 T	1.6 1.9 0.8 1.3	4.4 T	T T 2.7	0 0 0	0	9.9	,	1944-45 1945-46 1946-47 1947-48 1948-49	0000	0	0	0 0 0	0 0 0.6	T 8.2 1.4 0.3 0.9	0.5 6.9 0 13.2 1.3	T 0.6 4.1 8.9 T	0 11.8 T 0.4	0 0 0 0 T	0 0 0 0	0 0 0 0	0.5 15.7 17.3 23.0 2.6
1919-20 1920-21 1921-22 1922-23 1923-24	0	) (	0 0	0	0 0 0	6.0 T 0.2 1.0	T 22.1 0.5	3.6 1.0 5.3 5.0 T	0.1	0	0 0 0	0	1.0 27.5 5.7		1949-50 1950-51	0			0		T 2,6	т	3.0	5.0	0	т	0	8.0
1924-25 1925-26 1926-27 1927-28 1928-29	0		0	T 0	0.3 T T	T T T T T T T T T T T T T T T T T T T	4.6	1.4 0.0 1.8 2.3	5.0 1.3 T	0.3	0	0	12.3 1.6 6.4															

CLIMATE OF RICHMOND, VIRGINIA

Several of the more noteworthy figures in the climate of Richmond were recorded prior to the opening of the first-order station in October 1897. The least monthly precipitation, 0.11, occurred in October 1874 and again in Kovember 1890. The longest period without measurable precipitation, 39 days, was from September 13 to October 21, 1884. The wettest year of record was 1889 with a total of 72.02 inches. The warmest year was 1891 with an average temperature of 61.4°.

rebruary 1899 was long remembered as the "cold February"; the temperature went to the all-time low of -3° on the 10th and -2° on the 11th and was below 10° during seven consecutive days. Snow storms on the 6-7 and 11-14 totalied 19.8 inches, although the greatest depth on the ground was 17.7 inches. Richmond's hottest August occurred in 1900 when there were fifteen consecutive days with the temperature reaching above 90° and a total of 23 days during the month with the temperature above 90°. A major flood occurred in the James River in December 1901 with a crest of 23.2 feet on the 31st. A glaze storm on December 15-17, 1905 caused great damage. Telephone, telegraph, and power lines were broken so that electricity had to be shut off until repairs could be made. One person was killed by a live wire. Hundreds of trees were damaged or destroyed. A killing frost on October 12, 1906 was the earliest of record for any autumn. The shortest growing season occurred in 1907 with 190 days (April 15 - October 22). A heavy wet snow on December 22-23, 1908 accumulated 17.2 inches in about 20 hours. The weight of this heavy snow broke many telephone and telegraph lines and even a few poles, and did considerable damage to trees, especially evergreens. A ten inch snowfall on April 3, 1915, stands as the record for so late in the season. It disrupted train and tolley service and did considerable damage to power, telephone, and telegraph lines.

The record cold December of 1917 and the near record cold January of 1918 combined to make that the coldest winter. Heavy snow in each month totalled 29.3 inches, the most for any two-month period and made the season's snowfall the second greatest of record. The year 1917 had the lowest annual mean temperature. Richmond's highest temperature, 107°, was recorded on Agust 6, 1918. A killing frost which occurred on April 26, 1919 is the record for so late in the season. The deepest snow fell January 27-28, 1932 in a storm that produced a total of 19.1 inches. The greatest depth on the ground during this storm was 18.0 inches on January 28. The summer of 1922 produced excessive rainfall which on three occasions, July 13 and 28 and August 26, resulted in the overflow of Shockoe Creek over the entire Shockoe Valley and Main Street from 14th to 17th Streets. The worst of these floods was on July 13th when the water rose to a depth of pore than five feet at the Main Street railroad station. Damages from the three freshets amounted to nearly a million dollars. A similar and greater flood in the same area occurred on July 30, 1923, when there was a torrential downpour of 6.33 inches in two hours and a 24-hour total of 7.26 inches. One life was lost, and again the damages amounted to more than half a million dollars. During the period 1925-34 when so much of the country was suffering from prolonged droughts, the Richmod area was fortunate with only two years, 1925 and 1930, that were much below normal in precipitation, and in both of these years there was sufficient moisture during the growing season for most crops. The growing season of 1929 was the longest of record, lasting from March 11 to November 22, a total of 256 days.

A series of major floods in the James River began in 1935 and continued with a flood each year for two more years. On September 7, 1935 the crest at Richmond was 23.6 feet. On March 20, 1936 the river reached an all-time high of 26.5 feet. The second highest mark, 25.2 feet, was reached on April 27, 1937. One of the most sudden floods in the James River at Richmond occurred during the night of February 14, 1936, when the water rose about six feet in half an hour because of an ice jam just below the City. Quite cold weather in January had caused the river to freeze over and some jamming began as early as January 31, but no solid ice pack dammed up the water until February 14th. When the water reached about 20 feet, the jam was broken and part of the water reached about 20 feet, the jam was broken and part of the water reached about 20 feet, the jam was broken and part of the water reached about 20 feet, the jam was broken and part of the water carried away and badly damaged, and a tug was sunk in the harbor. January 1940 was the coldest month of record. One of the heaviest snowfalls occurred on the 23-24, with 16.0 inches at the City Office and 21.6 at the Byrd Field Weather Bureau Airport Station. At the City Office there were no record breaking low temperatures, but at the Airport Station an extreme low of -129 was registered on the 29th, and the temperature went to below zero six consecutive days (25-30). The deep snow hindered traffic for several days, and snow removal was retarded by the cold weather. The passage of the remnats of a tropical storm through Virginia in August 1940 resulted in some torrential rainfall which produced another major flood of 23.2 feet at Richmond on the 23rd.

1941 was the driest year of record with only 26.82 inches of precipitation; however, the second half of the growing season had enough moisture to prevent a complete crop failure. October 1941 was notable for six days with maximum temperature above 90°; the highest was 99° on the 6th. The greatest number occasecutive days with measurable precipitation occurred in August 1942 when there was rain every day from the 3rd to the 14th, a total of 12.

there was rain every day from the 3rd to the 14th, a total of 12.

One of the worst, if not the worst, glaze storm in Richmond's history occurred on January 27-28, 1943. The total thickness of the ice accumulation was nearly an inch. Telephone, telegraph, and power lines suffered Kreat damage, and service to some sections of the Richmond area was not restored for two weeks or more. There was some damage to buildings and many thousands of trees were destroyed or badly broken. Another major flood occurred in the James River in September 1944. The crest at Richmond was 22.4 on the 21st. The wettest month of record was valuy 1945 with a total rainfall of 16.08 inches. Of this amount, 5.72 inches fell in a 24-hour period on the 17-18th. High water in Gillie Creek weakened a bridge on Government Road near the Meather Bureau Office so that it gave way under a loaded bus, and three lives were lost. During this period there were hundreds of complaints of flooded basements in the City. On July 14, 1948 a heavy downpour of rain on the 13-14th produced 3.18 inches, of which 1.79 inches fell in a 16-minute period, the heaviest rain of record for that length of time. Large amounts of dust in the air were brought down as mud in several showers on March 29, 1950. Saoke from Canadian forest fires carried southeastward at high levels all but completely obscured the sun and the moon during the period September 24-30, 1950.

#### STATION HISTORY

The first office of the U. S. Weather Bureau in Richmond was established on September 23, 1895, in the State Library Building. Climatological work was carried on in cooperation with the Virginia State Department of Agriculture, but no meteorological observations were taken. The office was moved to the Chamber of Commerce Building, Ninth and Main Streets, on May 22, 1897. Observations were begun on October 5, 1897. Elevation of barometer, 144 feet above mean sea level. Beight of instruments above ground: thermometers 98 feet, rain gage 89 feet, anemometer 105 feet, wind vane 107 feet.

On May 31, 1900, the office was moved to the Times Building, Tenth and Bank Streets. Elevation of barometer, 157 feet; other instruments above ground; thermometers 82 feet, raingage 76 feet, anemometer 90 feet, wind wane 92 feet.

The office was moved to the Mutual Assurance Society Building at Ninth and Main Streets on June 30, 1905. Elevation of barometer 215 feet; other instruments above ground: thermometers 145 feet, rain gage 138 feet, anemometer 15 feet, wind vane 154 feet.

Occupancy of the present offices in the Weather Bureau Building in Chimborazo Park, on East Broad Street at 33rd, began Janu. "y 30, 1910. Elevation of barometer 168 feet above mean sea-level; other instruments above ground: thermometers 11 feet, rain gage 3 feet, anemometer 52 feet, wind vane 53 feet.

Chimborago Park is open with tree-lined drives and no buildings. The surrounding country is rolling with considerable flat land and no nearby bills as high as the Weather Bureau location. The ground elevation of the station is 162 feet. About 500 feet southwest of the Station the ground falls away sharply to

the James River Valley. The James River is about one-half mile southwest of the office. The location is above the river fog and instrumental exposure is quite satisfactory.

A weather station with Weather Bureau personnel was opened at Byrd Field on July 15, 1928 and continued to May 27, 1935. Observations were made by the personnel of the Civil Aeronautics Communications Station from May 27, 1935 to July 14, 1938, when the Weather Bureau reopened its Airport Station. This station was closed on September 24, 1942, and observations were then made by the Army Base Weather Station until April 19, 1946 when the Weather Bureau Airport Station word into the new Terminal Building for Byrd Field. It was supplied with the regular airport station instruments and equipment and, in addition, had a triple register installed so that it would have automatic wind, sumshine, and precipitation records. Hourly airway observations are taken, also the siz-hourly observations and pilot balloon observations. The ground elevation of the present building is 167 feet, elevation of barometer 180 feet, anemometer 81 feet above the ground, and 9 feet above the ground. Automatic records of wind, sunshine, and reinfall were discontinued at the City Office when they began at the Airport Station, and a weighing recording precipitation gage was put in use at the City Office.