

U. S. Department of Agriculture,
WEATHER BUREAU.

ANNUAL METEOROLOGICAL SUMMARY

FOR

1904.

STATION:

Richmond Va.

LOCATION OF OFFICE DECEMBER 31, 190

Street, *16" Corner of Bank St.*

Number, *Times Building.*

Room, *S 22, 23, 24, 25*

SUM OF BAROMETER CORRECTIONS.

From *8 a. m. Jan. 1* to *8 p. m. Dec. 31* inc. *2010* in.

From _____ m. _____ to _____ m. _____ inc. _____ in.

ANNUAL METEOROLOGICAL SUMMARY FOR 190 — STATION

Richmond Virginia

Latitude N. *37° 02'*

Longitude W. *77° 27'*

Local time *0 h. 10 min. (t) above* than 75th meridian time.

MONTHS.	STATION PRESSURE. (Corrected for temperature, instrumental error, gravity, and removal.)							TEMPERATURE.																
	STATION ELEVATION OF BAROMETER CISTERN ABOVE MEAN SEA-LEVEL, <i>144</i> FEET.							ELEVATION OF DRY THERMOMETER BULB ABOVE GROUND ON DEC. 31, <i>82</i> FEET.													No. OF DAYS.			
	MEAN.			Highest observed.	Date.	Lowest observed.	Date.	Absolute range.	FROM SELF-REGISTERING INSTRUMENTS.													Max. below 32°	Max. above 90°	Min. below 32°
	8 a. m.	8 p. m.	Corrected monthly.						MEAN.			Highest.	Date.	Lowest.	Date.	RANGE.		Mean daily change.						
(e)	(e)	(e)	Max.	Min.	Month-ly.	(e)	(e)	Date.	Absol-ute.	Mean daily.	(d.)													
In.	In.	In.	In.	In.	In.	In.	°	°	°	°	°	°	°	°	°	°	°	°						
Jan.,	<i>29.998</i>		<i>29.976</i>	<i>30.696</i>	<i>19</i>	<i>29.041</i>	<i>9"</i>	<i>1.155</i>	<i>28.5</i>	<i>46.6</i>	<i>25.3</i>	<i>33.4</i>	<i>68</i>	<i>22</i>	<i>9</i>	<i>19"</i>	<i>59</i>	<i>16.3</i>	<i>6.3</i>	<i>7</i>	<i>0</i>	<i>25</i>		
Feb.,	<i>30.077</i>		<i>30.054</i>	<i>30.428</i>	<i>28</i>	<i>29.438</i>	<i>1"</i>	<i>0.790</i>	<i>28.8</i>	<i>43.6</i>	<i>25.7</i>	<i>34.2</i>	<i>68</i>	<i>7"</i>	<i>7</i>	<i>17"</i>	<i>59</i>	<i>16.9</i>	<i>8.0</i>	<i>5</i>	<i>0</i>	<i>22</i>		
Mar.,	<i>29.989</i>		<i>29.957</i>	<i>30.659</i>	<i>5"</i>	<i>29.387</i>	<i>11"</i>	<i>1.272</i>	<i>42.6</i>	<i>56.4</i>	<i>38.1</i>	<i>47.5</i>	<i>74</i>	<i>25"</i>	<i>23</i>	<i>5"</i>	<i>57</i>	<i>18.8</i>	<i>6.5</i>	<i>0</i>	<i>0</i>	<i>6</i>		
April,	<i>29.858</i>		<i>29.856</i>	<i>30.370</i>	<i>4"</i>	<i>29.544</i>	<i>10"</i>	<i>0.826</i>	<i>49.9</i>	<i>64.3</i>	<i>44.0</i>	<i>54.2</i>	<i>84</i>	<i>25"</i>	<i>29</i>	<i>4"</i>	<i>55</i>	<i>20.3</i>	<i>6.0</i>	<i>0</i>	<i>0</i>	<i>1</i>		
May,	<i>29.885</i>		<i>29.853</i>	<i>30.195</i>	<i>4"</i>	<i>29.374</i>	<i>18"</i>	<i>0.601</i>	<i>63.4</i>	<i>78.5</i>	<i>56.0</i>	<i>67.2</i>	<i>91</i>	<i>25"</i>	<i>46</i>	<i>16"</i>	<i>45</i>	<i>22.5</i>	<i>3.1</i>	<i>0</i>	<i>1</i>	<i>0</i>		
June,	<i>29.914</i>		<i>29.886</i>	<i>30.202</i>	<i>24"</i>	<i>29.676</i>	<i>22"</i>	<i>0.526</i>	<i>70.7</i>	<i>84.3</i>	<i>64.6</i>	<i>74.4</i>	<i>96</i>	<i>5"</i>	<i>52</i>	<i>14"</i>	<i>44</i>	<i>19.6</i>	<i>3.4</i>	<i>0</i>	<i>5</i>	<i>0</i>		
July,	<i>29.910</i>		<i>29.885</i>	<i>30.155</i>	<i>3"</i>	<i>29.601</i>	<i>12"</i>	<i>0.554</i>	<i>73.7</i>	<i>87.5</i>	<i>67.9</i>	<i>77.7</i>	<i>98</i>	<i>19"</i>	<i>62</i>	<i>3"</i>	<i>36</i>	<i>19.5</i>	<i>2.8</i>	<i>0</i>	<i>10</i>	<i>0</i>		
Aug.,	<i>29.946</i>		<i>29.922</i>	<i>30.198</i>	<i>9"</i>	<i>29.728</i>	<i>14"</i>	<i>0.470</i>	<i>72.0</i>	<i>84.5</i>	<i>66.8</i>	<i>75.6</i>	<i>94</i>	<i>22"</i>	<i>56</i>	<i>29"</i>	<i>38</i>	<i>17.6</i>	<i>3.0</i>	<i>0</i>	<i>3</i>	<i>0</i>		
Sept.,	<i>29.996</i>		<i>29.972</i>	<i>30.431</i>	<i>23"</i>	<i>29.717</i>	<i>30"</i>	<i>0.714</i>	<i>65.5</i>	<i>80.9</i>	<i>60.9</i>	<i>70.9</i>	<i>92</i>	<i>3"</i>	<i>43</i>	<i>23"</i>	<i>49</i>	<i>20.0</i>	<i>4.0</i>	<i>0</i>	<i>2</i>	<i>0</i>		
Oct.,	<i>30.002</i>		<i>29.978</i>	<i>30.331</i>	<i>7"</i>	<i>29.448</i>	<i>21"</i>	<i>0.903</i>	<i>57.7</i>	<i>68.9</i>	<i>46.5</i>	<i>57.7</i>	<i>87</i>	<i>11"</i>	<i>33</i>	<i>31"</i>	<i>54</i>	<i>22.4</i>	<i>5.2</i>	<i>0</i>	<i>0</i>	<i>0</i>		
Nov.,	<i>29.927</i>		<i>29.903</i>	<i>30.374</i>	<i>17"</i>	<i>29.209</i>	<i>13"</i>	<i>1.165</i>	<i>40.8</i>	<i>55.7</i>	<i>36.7</i>	<i>46.2</i>	<i>67</i>	<i>20"</i>	<i>27</i>	<i>28</i>	<i>40</i>	<i>19.1</i>	<i>4.3</i>	<i>0</i>	<i>0</i>	<i>7</i>		
Dec.,	<i>29.957</i>		<i>29.934</i>	<i>30.379</i>	<i>22"</i>	<i>29.298</i>	<i>28"</i>	<i>1.090</i>	<i>31.6</i>	<i>44.4</i>	<i>27.2</i>	<i>35.8</i>	<i>67</i>	<i>28</i>	<i>12</i>	<i>13</i>	<i>55</i>	<i>17.2</i>	<i>5.7</i>	<i>4</i>	<i>0</i>	<i>23</i>		
Sum,	<i>359.489</i>		<i>359.176</i>		Highest.	Date.	Lowest.	Date.	<i>10.266</i>	<i>619.2</i>	<i>790.1</i>	<i>559.7</i>	<i>674.8</i>	Max.	Date.	Min.	Date.	<i>585</i>	<i>23.2</i>	<i>583</i>	<i>16</i>	<i>21</i>	<i>84</i>	
Mean,	<i>29.957</i>		<i>29.931</i>	<i>30.696</i>	<i>Jan</i>	<i>29.209</i>	<i>10</i>	<i>0.856</i>	<i>51.6</i>	<i>65.8</i>	<i>46.6</i>	<i>56.2</i>	<i>98</i>	<i>19"</i>	<i>9</i>	<i>17"</i>	<i>49</i>	<i>19.2</i>	<i>4.9</i>	<i>a.</i>	<i>a.</i>	<i>a.</i>		

a.—Omit data from this space.

c.—To thousandths.

d.—To tenths.

e.—To whole numbers.

t.—Enter the word "faster," or "slower," as the case may be.

MONTHS.	TEMPERATURE.								DEW-POINT.			RELATIVE HUMIDITY (Percentage).			VAPOR PRESSURE.			PRECIPITATION. (Amount in inches and hundredths). 76 ELEVATION OF TOP OF GAUGE ABOVE GROUND DEC. 31, _____ FEET.									SNOWFALL (total depth).	
	NO. OF DAYS.																											
	MEAN.								MEAN.			MEAN.			MEAN.			TOTAL AMOUNT.	GREATEST AMOUNT IN ANY 24 CONSECUTIVE HOURS.		EXCESSIVE.							
	BELOW—				ABOVE—				8 a. m.	8 p. m.	Month-ly.	8 a. m.	8 p. m.	Month-ly.	8 a. m.	8 p. m.	Month-ly.		Am't.	Date.	2.50 inches in 24 hours. (g.) * (g.)		1 inch per hour. (g.)					
14°	32°	41°	50°	59°	68°	77°	90°	(e.)	(e.)	(e.)	(e.)	(e.)	(e.)	(e.)	(e.)	In.	In.		In.	In.	Dir't'n. (h. & m.)	Date.	Am't.	Dir't'n. (h. & m.)	Date.	In.	In.	
Jan.,	0	12	4	3	1	0	0	0	24			82			.140			2.34	0.72	²⁵ / ₂₉ "	none	none	none	none	none	10.7		
Feb.,	0	15	8	3	1	0	0	0	23			78			.101			2.71	0.86	²⁴ / ₂₂ "	none	none	none	none	8.4			
Mar.,	0	0	22	11	2	0	0	0	36			79			.229			3.52	1.28	9"	none	none	none	none	7			
April,	0	0	30	20	9	1	0	0	40			69			.268			1.57	0.57	²⁷ / ₂₇ "	none	none	none	none	0			
May,	0	0	31	31	30	10	2	0	54			72			.426			1.45	0.83	⁹ / ₁₀ "	none	none	none	none	0			
June,	0	0	30	30	30	24	10	0	63			77			.586			4.11	1.78	1"	none	1:20	0:34	1"	0			
July,	0	0	31	31	31	30	16	0	66			78			.639			6.25	2.79	²³ / ₂₄ "	2:29	16:0	²⁰ / ₂₄ "	1:07	0:37	23"	0	
Aug.,	0	0	31	31	31	29	13	0	66			84			.656			3.83	1.00	¹⁸ / ₁₉ "	none	none	none	none	0			
Sept.,	0	0	30	30	28	21	4	0	60			83			.532			3.00	2.83	14"	2:83	11:06	¹⁴ / ₁₄ "	1:40	1:10	14"	0	
Oct.,	0	0	31	22	12	4	0	0	44			75			.299			2.80	2.45	²⁸ / ₂₁ "	none	none	none	none	0			
Nov.,	0	0	23	8	0	0	0	0	34			77			.202			2.55	1.65	13"	none	none	none	none	1.8			
Dec.,	0	8	8	0	0	0	0	0	27			81			.149			3.71	1.17	5"	none	none	none	none	8.6			
Sum,	0	35	279	220	175	119	45	0	537			935			425			37.84	a.	a.	a.	a.	a.	a.	a.	a.	a.	29.4
Mean,	a.	a.	a.	a.	a.	a.	a.	a.	45			78			353			a.	2.83	Sept 14"	a.	a.	a.	a.	a.	a.	a.	

g.—No entry unless the precipitation actually equaled or exceeded 2.50 inches in 24 consecutive hours, or 1 inch per hour, as the case may be.

* The duration is the time per ex. was actually recorded.

MONTHS.	MEAN CLOUDINESS. (0 to 10.)		HOURS OF SUNSHINE.			WIND. ELEVATION OF ANEMOMETER CUPS ABOVE GROUND DEC. 31, <u>90</u> FEET.													NUMBER OF DAYS.													
	8 a.m.	8 p.m.	Monthly. (h.)	TOTAL.	POSSIBLE.	PERCENTAGE.	TOTAL MOVEMENT IN MILES.	PRE-VAILING DIRECTION.	MAXIMUM HOURLY VELOCITY DURING MONTH.			No. OF DAYS WITH GALES. (h.)	DIRECTION.								No. OF CALMS.	CLEAR.	PARTLY CLOUDY.	CLOUDY.	PRECIPITATION.				FOG.	THUNDERSTORMS.	AURORAS.	
	(d.)	(d.)							Miles.	From.	Date.		NUMBER OF TIMES OBSERVED BLOWING FROM THE—																			
										N.	NE.		E.	SE.	S.	SW.	W.	NW.	.01 inch and over.	.04 inch and over.					SHOW.	HAIL.						
Jan.,	5.6	5.1	1638	3065	53	4475	N	24	SW	21"	0	16	10	1	7	8	7	8	5	0	13	8	10	12	10	5	0	0	0	0	0	
Feb.,	4.8	5.7	1575	3137	49	4503	N	32	SW	7"	0	20	7	1	4	9	8	3	6	0	9	8	12	11	8	5	0	1	0	0	0	
Mar.,	6.2	5.7	1474	3714	40	4489	N	40	SW	3"	1	14	12	5	9	4	7	1	10	0	10	7	14	10	9	0	0	1	3	0	0	
April,	5.7	5.2	1713	3962	43	4399	SW	29	SW	1"	0	12	3	4	8	6	13	6	8	0	11	8	11	10	5	0	0	0	2	0	0	
May,	3.3	2.5	3254	4417	74	4083	SW	25	W	9"	0	9	5	6	13	7	16	0	6	0	21	8	2	9	5	0	0	0	6	0	0	
June,	4.6	2.9	3187	4431	72	4051	SW	33	SW	21"	0	11	12	6	7	4	15	4	1	0	20	9	1	11	8	0	0	0	10	0	0	
July,	5.0	4.5	2760	4501	61	3578	SW	28	SW	12"	0	10	6	2	6	8	21	3	6	0	11	16	4	14	12	0	0	1	11	0	0	
Aug.,	5.3	4.6	2443	4221	58	3353	SW	19	N	1"	0	11	7	3	11	4	18	3	4	1	11	14	6	12	10	0	0	0	10	0	0	
Sept.,	4.1	3.2	2485	3730	67	3019	SW	30	W	14"	0	12	12	4	5	9	15	0	3	0	19	6	5	3	3	0	0	2	2	0	0	
Oct.,	2.8	2.7	2683	3473	77	3269	N	18	S	10"	0	18	7	2	5	9	11	3	7	0	21	6	4	3	3	0	0	0	0	0	0	
Nov.,	4.0	4.4	1698	3040	56	3259	NW	23	SW	29"	0	14	5	0	2	5	8	10	15	1	14	10	6	4	4	1	0	3	0	0	0	
Dec.,	5.3	5.1	1363	2967	46	4176	SW	32	SW	28"	0	14	6	1	2	8	15	8	8	0	14	4	13	15	13	5	0	1	0	0	0	
Sum,	56.7	51.6	26213	44658	696	46656	a.	a.	a.	a.	1	181	92	35	79	81	154	49	79	2	174	104	88	114	90	16	0	9	44	0	0	
Mean,	4.7	4.3	2184	3722	58	a.	N	40	SW	3"	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.	a.

h.—Days with 40 miles per hour and over. j.—One entry only.

MEAN HOURLY VELOCITY.

MONTHS.

	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	FOR THE MONTH.
	a. m.	a. m.	a. m.	a. m.	a. m.	a. m.	a. m.	a. m.	a. m.	a. m.	a. m.	Noon.	p. m.	p. m.	p. m.	p. m.	p. m.	p. m.	p. m.	p. m.	p. m.	p. m.	p. m.	Mid't.	
Jan.,	5.4	4.8	5.1	5.5	5.5	5.3	5.4	5.3	5.5	6.7	6.8	7.2	7.9	7.7	7.6	7.4	6.5	6.1	5.6	5.4	5.7	5.4	5.3	5.1	6.0
Feb.,	5.4	5.5	5.3	5.0	5.1	5.0	5.6	5.5	5.8	7.2	7.2	7.0	7.6	8.0	8.4	8.6	8.6	7.7	6.7	6.2	6.4	6.1	5.7	5.7	6.5
Mar.,	5.2	4.9	4.8	4.9	4.9	4.8	5.0	5.5	6.6	7.0	7.4	7.1	7.4	7.4	7.9	7.9	7.7	6.6	5.7	5.8	5.1	5.1	5.1	5.0	6.0
April,	4.3	4.3	3.9	3.7	4.0	3.8	4.5	5.4	6.9	7.1	7.6	8.4	9.3	9.0	9.0	8.5	8.1	7.6	6.4	5.5	5.5	4.8	4.6	4.3	6.1
May,	3.4	3.5	3.3	3.3	3.1	3.3	3.5	4.8	5.8	6.7	6.7	7.4	7.8	7.8	8.5	8.3	8.2	7.6	6.9	5.3	4.5	4.5	4.0	3.5	5.5
June,	4.3	4.5	4.2	4.2	4.1	4.0	4.7	5.5	5.9	6.3	6.0	6.7	7.1	7.3	7.7	7.7	7.7	7.0	6.5	5.4	4.7	4.6	4.4	4.6	5.6
July,	3.5	3.5	3.8	3.5	3.4	3.5	4.1	4.5	5.0	5.3	6.2	6.0	6.2	6.2	7.1	7.6	7.0	6.2	5.3	4.2	3.7	3.3	3.2	3.0	4.8
Aug.,	3.3	3.1	3.1	3.2	3.4	3.3	3.5	4.6	5.5	5.5	5.7	5.8	6.0	5.9	6.0	6.1	5.6	5.2	4.5	4.0	3.6	4.0	3.6	3.7	4.5
Sept.,	3.1	3.0	2.7	2.8	3.0	3.0	3.1	3.6	4.3	5.0	5.5	5.5	6.4	6.3	6.5	6.2	5.9	4.7	3.6	3.3	3.2	3.6	3.2	3.2	4.2
Oct.,	3.3	3.4	3.5	3.2	3.2	3.1	3.9	3.9	4.9	5.8	6.2	6.3	6.8	6.4	6.4	6.3	5.6	4.4	3.4	3.0	3.2	3.0	3.3	3.2	4.4
Nov.,	3.2	2.9	3.1	3.4	3.4	3.5	3.6	3.7	4.2	4.9	5.5	6.2	6.8	6.5	6.9	6.4	5.5	4.5	4.4	4.4	4.2	4.0	3.8	3.6	4.5
Dec.,	5.1	5.0	4.8	4.7	4.7	4.7	4.6	4.4	5.3	6.1	6.9	7.0	7.6	7.1	7.1	6.8	5.9	5.1	4.9	5.2	5.3	5.5	5.6	5.3	5.6
Sum,	49.5	48.4	47.6	47.4	47.8	47.3	51.5	56.7	65.7	73.6	77.7	80.6	86.9	85.6	89.1	87.8	82.3	72.7	63.9	57.7	56.1	53.9	51.8	50.2	63.7
Mean,	4.1	4.0	4.0	4.0	4.0	3.9	4.3	4.7	5.6	6.1	6.5	6.7	7.2	7.1	7.4	7.3	6.9	6.1	5.3	4.8	4.6	4.5	4.3	4.2	5.3

CORRECTED MEAN MONTHLY REDUCED PRESSURES
AND MEAN MONTHLY REDUCED TEMPERATURES.

MONTHS.	SEA LEVEL.		3,500-FOOT.		10,000-FOOT.	
	Pressure.	Tem- pera- ture.	Pressure.	Tem- pera- ture.	Pressure.	Tem- pera- ture.
	(c)	(d)	(b)	(d)	(b)	(d)
	In.	°	In.	°	In.	°
Jan.,	30.142	33.7	26.35	26.1	20.43	12.0
Feb.,	30.221	34.5	26.42	22.3	20.49	6.6
Mar.,	30.114	47.8	26.44	38.6	20.67	21.6
April,	30.009	54.5	26.40	43.1	20.70	25.2
May,	30.003	67.6	26.48	55.2	20.90	38.0
June,	30.032	74.8	26.56	64.7	21.03	50.3
July,	30.029	78.1	26.57	67.1	21.10	52.4
Aug.,	30.068	76.0	26.60	66.0	21.08	51.6
Sept.,	30.119	71.3	26.61	62.6	21.04	49.0
Oct.,	30.128	58.1	26.53	47.9	20.85	32.1
Nov.,	30.057	46.5	26.38	36.8	20.59	22.3
Dec.,	30.093	36.1	26.33	26.0	20.44	10.9
Sum,	361.015	679.0	317.67	556.4	249.32	372.0
Mean,	30.085	56.6	26.47	46.4	20.78	31.0