

# U. S. DEPARTMENT OF COMMERCE

SINCLAIR WEEKS, Secretary

## WEATHER BUREAU

F. W. REICHELDERFER, Chief

# LOCAL CLIMATOLOGICAL DATA

## WITH COMPARATIVE DATA

1952

RICHMOND, VIRGINIA



CHATTANOOGA: 1953

### NARRATIVE CLIMATOLOGICAL SUMMARY

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 November 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°.

February 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, totalled 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 trolley 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 August 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 27-29, 1922 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 more 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 Richmond 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.

(Continued on back page)

LATITUDE 37° 32' N  
 LONGITUDE 77° 25' W  
 ELEVATION (ground) 162 feet

# METEOROLOGICAL DATA FOR THE CURRENT YEAR

RICHMOND, VIRGINIA  
 CHIMBORAZO PARK  
 1952

Month	Temperature						Degree days	Precipitation						Relative humidity †				Wind †				Number of days																			
	Averages			Extremes				Total	Greatest in 24 hrs.	Date	Snow, Sleet, Hail			1:30 a.m., EST	7:30 a.m., EST	1:30 p.m., EST	7:30 p.m., EST	Average hourly speed	Fastest mile			Percent of possible sunshine	Average sky cover sunrise to sunset	Sunrise to sunset			Precipitation .01 inch or more	Snow, Sleet, Hail 1.0 or more	Thunderstorms	Heavy fog	Max. temp.		Min. temp.								
	Daily maximum	Daily minimum	Monthly	Highest	Date	Lowest					Date	Total	Greatest in 24 hrs.						Date	1:30 a.m., EST	7:30 a.m., EST			1:30 p.m., EST	7:30 p.m., EST	Speed					Direction	Date	Clear	Partly cloudy	Cloudy	Clear	Partly cloudy	Cloudy	90° and above	32° and below	32° and below
Jan.	52.5	34.5	43.5	78	1	16	30	657	5.39	1.94	27-28	1.0	0.5	22+	79	82	55	69	8.1	NNE	29	29	NW	10	45	6.6	8	7	16	12	0	1	5	0	1	0	0				
Feb.	52.3	33.8	43.1	64	1	27	22	630	2.50	0.82	3-4	8.0	4.5	24	73	79	49	61	8.0	NNE	31	31	NW	11	52	6.1	10	4	15	10	0	4	0	0	0	0	0				
Mar.	57.7	36.7	47.2	84	21	28	7	551	5.61	1.84	23-24	T	0.0	1	79	80	48	60	9.0	NNE	42	42	SE	11	58	6.8	9	8	16	11	0	0	0	0	0	0	0	0			
Apr.	69.1	48.2	58.7	91	22	35	8	223	4.09	2.07	25-26	0.0	0.0	T	78	76	48	60	8.9	NNW	33	33	SE	13+	58	5.9	10	11	11	11	0	0	0	1	0	0	0	0	0		
May	76.5	55.0	65.8	88	2	46	13+	51	3.90	1.36	24-25	0.0	0.0	T	82	74	49	67	7.9	WSW	26	26	SW	12	60	5.9	8	12	11	13	0	0	0	0	0	0	0	0	0	0	
June	89.1	66.9	78.0	103	26	54	3	0	4.29	1.75	29-30	T	0.0	29+	84	75	48	65	6.9	WSW	52	52	NW	29	78	5.1	12	7	11	11	0	0	0	13	0	0	0	0	0	0	
July	90.7	70.2	80.5	102	23	58	2	0	2.84	1.35	7-8	0.0	0.0	T	84	77	48	66	6.9	SSW	32	32	SW	23	79	5.0	12	9	10	10	0	0	0	0	0	0	0	0	0	0	
Aug.	85.6	68.0	76.8	91	4	54	24	0	8.08	2.20	6-7	0.0	0.0	T	90	87	59	78	6.7	SSW	50	50	SE	31	64	7.2	4	12	15	13	0	0	0	0	0	0	0	0	0	0	0
Sept.	80.4	59.8	70.1	86	14	46	28	0	1.1	0.77	22-23	0.0	0.0	T	90	88	51	78	6.7	SSW	45	45	SE	21	76	4.2	17	5	8	8	0	0	0	0	0	0	0	0	0	0	0
Oct.	68.2	44.3	56.3	87	2	28	30	0	2.81	0.79	2	0.0	0.0	T	82	83	44	67	7.2	SSW	27	27	NW	20	71	3.9	17	7	7	7	0	0	0	0	0	0	0	0	0	0	0
Nov.	60.8	40.2	50.5	79	3	25	29	0	4.27	2.30	19-20	0.5	0.5	30	83	86	52	73	6.7	SSW	28	28	S	21	58	6.4	9	6	15	9	0	0	0	0	0	0	0	0	0	0	0
Dec.	49.0	32.2	40.6	63	10	18	29	0	2.90	1.15	31	T	T	2	83	85	59	74	6.8	NW	28	28	E	31	45	6.3	9	5	17	8	0	0	0	0	0	0	0	0	0	0	
Year	69.3	49.2	59.3	103	June 26	Jan. 16	30	3582	50.69	2.30	Nov. 19-20	9.5	4.5	24	82	81	51	68	7.5	S	52	52	NW	29	64	5.8	122	92	152	113	3	42	33	41	1	62	0	0	0		

# Wind direction to 8 compass points only.

## MEANS AND EXTREMES FOR PERIOD OF RECORD

Month	Temperature						Mean degree days	Precipitation						Relative humidity				Wind				Mean number of days																				
	Means			Extremes				Mean total	Maximum monthly	Year	Minimum monthly	Year	Snow, Sleet, Hail			1:30 a.m., EST	7:30 a.m., EST	1:30 p.m., EST	7:30 p.m., EST	Mean hourly speed	Fastest mile			Pct. of poss. sunshine	Average sky cover sunrise to sunset	Sunrise to sunset			Precipitation .01 inch or more	Snow, Sleet, Hail 1.0 or more	Thunderstorms	Heavy fog	Max. temp.		Min. temp.							
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest							Year	Mean total	Maximum monthly						Year	Maximum in 24 hrs.	Year			Mean total	Maximum monthly	Year					Maximum in 24 hrs.	Year	Speed	Direction	Year	Clear	Partly cloudy	Cloudy	Clear	Partly cloudy
(a)	55	55	55	55	55	55	55	81	81	81	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55					
J	48.2	30.4	39.3	80	1943	-1	1918	797	3.28	10.08	1937	0.55	1876	2.66	1921	3.5	22.4	1940	16.0	1940	77	84	61	68	8.2	SW	62	SW	1913	48	5.8	10	8	13	11	1	*	0	0	0	0	0
F	49.1	30.2	39.7	82	1930	-3	1899	715	3.00	8.82	1873	0.55	1901	3.30	1920	3.4	20.2	1899	12.6	1936	72	78	57	63	8.5	SW	51	NW	1917	55	5.3	10	7	11	10	1	*	0	0	0	0	0
M	58.5	37.7	48.1	94	1907	12	1943	531	3.67	8.78	1891	1.07	1930	3.59	1903	3.2	15.8	1914	7.8	1914	74	77	53	63	9.2	SW	51	W	1942	60	5.3	11	9	11	11	1	*	0	0	0	0	0
A	67.6	45.8	56.7	96	1923	19	1923	275	3.40	8.89	1889	0.52	1942	3.33	1910	0.3	10.0	1915	10.0	1915	75	74	51	59	8.7	SW	62	NW	1943	63	5.1	11	9	10	11	1	*	0	0	0	0	0
M	77.3	55.7	66.5	98	1941	35	1923	70	3.78	9.13	1889	0.45	1950	3.39	1907	T	0.3	1951	0.3	1951	83	76	52	64	7.3	SW	56	SW	1923	67	5.0	12	10	9	12	0	0	0	0	0	0	
J	84.2	64.2	74.2	104	1936	43	1938	7	3.85	9.28	1938	1.15	1930	3.69	1938	T	1952+	1952+	1952+	1952+	86	78	54	68	6.7	SW	53	NW	1917	65	5.2	10	11	9	11	0	0	0	0	0	0	
J	85.7	68.5	78.0	105	1936	52	1933	*	4.71	16.08	1945	0.57	1911	3.26	1923	T	1931+	1931+	1931+	90	81	57	73	6.5	SW	47	SW	1920	66	5.2	10	13	9	11	0	0	0	0	0	0		
A	87.5	67.1	76.4	107	1918	49	1923	1	4.70	11.42	1931	0.45	1896	5.71	1921	T	1915	1915	1915	90	84	58	74	6.2	SW	50	SE	1952	62	5.2	10	12	9	11	0	0	0	0	0	0		
S	80.5	61.2	70.9	101	1922	40	1942	27	3.23	10.41	1888	0.15	1884	5.68	1935	0.0	0.0	1925	0.0	1925	90	85	57	73	6.3	NE	45	SE	1952	63	5.0	12	9	9	10	0	0	0	0	0	0	
O	70.5	49.5	60.0	99	1941	28	1952+	194	2.85	8.51	1890	0.11	1874	4.81	1929	T	1925	1925	1925	87	84	53	72	6.9	NE	49	NW	1917	63	4.4	14	9	9	9	0	0	0	0	0	0		
N	59.1	39.0	49.1	83	1946	14	1929	482	2.42	6.69	1920	0.11	1890	2.77	1902	0.4	9.2	1938	7.2	1938	81	81	54	67	7.5	SW	47	SW	1920	58	4.8	12	8	10	8	0	0	0	0	0	0	
D	48.9	31.4	40.2	77	1927	-2	1917	771	3.01	7.10	1905	0.57	1889	2.52	1909	2.7	17.2	1908	17.2	1908	78	82	60	69	7.5	SW	46	SW	1944	49	5.5	11	7	13	13	0	0	0	0	0	0	
Year	68.1	48.4	58.3	107	Aug. 1918	-3	Feb. 1899	3870	41.90	16.08	July 1945	0.11	Nov. 1890+	7.26	July 1923	12.5	22.4	Jan. 1940	17.2	Dec. 1908	82	80	56	68	7.5	SW	62	NW	1943+	61	5.2	133	111	121	122	2	40	17	32	7	71	*

REFERENCE NOTES

(a) Length of record, years.  
 \* Less than one half.  
 - No record.  
 † Airport data.  
 ‡ City Office data.  
 § Also on earlier dates, months, or years.  
 † Trace, an amount too small to measure.

Beginning with this issue new normals are being used for all first order stations. These are generally based on the 30 year record 1921 through 1950. Where 30 years of record are not available, normals are based on records of from 10 to 30 years adjusted to the 30 year period ending with 1950.  
 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 humidity in percent.

Sky cover is expressed in a range of 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 have been included in snowfall totals since June 1948.

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

Heavy fog in the Means and Extremes Table 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

RICHMOND, VIRGINIA  
CHIMBORAZO PARK  
1952

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An. 1.
1901	38.8	34.7	49.8	52.8	65.5	74.8	81.0	77.4	70.0	59.1	44.1	38.6	57.2
1902	36.2	34.6	50.0	55.8	67.8	74.3	79.3	75.0	68.6	61.6	54.8	40.1	58.2
1903	38.2	43.0	54.4	57.8	67.8	70.2	78.0	75.8	69.4	58.9	44.8	36.2	58.0
1904	33.4	34.2	47.5	54.2	67.2	74.4	77.7	75.4	68.2	57.2	45.2	35.2	56.2
1905	35.0	31.2	49.2	56.4	69.4	74.2	78.4	75.8	71.7	59.4	48.2	40.4	57.6
1906	43.1	38.6	42.0	59.1	67.0	75.0	76.8	72.8	73.6	57.8	50.0	41.4	58.6
1907	42.8	35.0	52.1	50.4	62.7	68.4	79.1	75.4	72.8	55.8	47.8	42.0	57.0
1908	38.1	36.6	52.0	60.0	67.2	72.9	78.9	74.0	68.4	60.4	50.4	41.2	58.4
1909	42.2	47.4	46.4	57.6	68.0	75.2	76.8	74.2	67.4	55.4	53.1	35.9	58.2
1910	39.0	39.4	53.9	58.4	63.8	70.3	77.8	74.6	71.8	61.0	42.5	34.1	57.2
1911	41.8	41.0	44.8	52.4	69.8	75.0	79.6	77.7	72.5	59.2	45.0	43.2	58.5
1912	28.9	35.0	44.9	59.6	67.0	72.7	77.6	76.4	73.0	60.2	48.2	43.2	57.2
1913	46.7	40.0	52.0	57.8	66.6	73.8	79.0	75.2	69.0	60.2	50.2	42.2	58.4
1914	41.8	35.0	41.8	58.8	66.6	75.8	76.9	77.6	68.2	61.8	48.0	35.7	57.3
1915	39.4	43.7	40.6	55.9	66.0	72.0	78.0	76.2	72.4	61.3	49.2	37.7	58.0
1916	44.0	38.8	43.4	59.8	69.7	71.7	77.5	76.1	68.2	60.2	48.5	36.8	57.7
1917	39.8	37.6	46.6	57.4	61.2	73.6	78.8	75.8	65.2	54.8	44.4	30.0	55.3
1918	28.0	41.2	51.7	54.7	64.0	71.0	75.8	78.3	65.6	62.2	47.8	43.2	57.6
1919	40.8	39.8	49.5	56.6	68.1	73.2	77.6	75.0	71.3	67.2	48.8	35.9	58.5
1920	34.2	35.5	48.2	55.2	68.0	72.4	75.4	75.0	71.0	62.0	47.2	41.0	56.5
1921	39.9	42.0	57.6	60.1	63.1	74.8	80.0	76.6	76.8	59.5	51.6	41.0	58.2
1922	35.0	41.9	46.4	58.6	67.2	75.0	77.6	73.3	70.6	60.8	49.0	42.3	58.4
1923	40.1	37.0	48.0	55.8	64.4	76.0	76.4	75.2	70.8	57.7	46.8	47.6	58.4
1924	38.0	38.2	45.6	54.0	64.8	72.8	75.2	76.4	65.8	58.6	48.8	40.5	56.0
1925	38.6	47.4	48.9	59.2	62.0	77.9	79.6	74.3	75.4	55.1	46.7	38.8	58.5
1926	37.8	41.8	43.0	54.5	65.1	71.4	77.6	78.0	71.2	60.2	48.4	37.8	57.1
1927	37.9	45.9	50.2	53.8	66.2	69.4	76.0	71.3	70.6	61.4	53.1	41.0	58.1
1928	38.9	40.4	47.4	54.7	63.8	61.4	73.4	78.2	65.2	62.4	41.0	37.7	57.3
1929	38.8	38.2	52.6	60.2	65.8	73.1	77.2	75.1	71.2	58.0	49.8	41.4	58.4
1930	39.6	45.3	46.4	55.6	68.8	74.2	79.8	76.1	76.8	57.2	48.1	36.8	58.7
1931	39.7	41.5	42.3	54.4	65.5	73.8	80.4	75.7	74.4	62.3	55.9	47.8	59.5
1932	49.8	46.2	43.9	55.0	65.1	74.1	79.1	78.8	72.2	60.4	46.8	42.4	59.5
1933	45.6	41.2	46.4	56.8	70.1	75.8	76.2	76.6	74.4	58.7	47.4	42.2	59.4
1934	42.4	29.0	43.4	56.8	67.0	78.1	80.6	76.6	72.3	58.0	51.1	39.6	57.9
1935	31.4	39.7	42.6	53.7	63.8	74.4	77.6	78.2	65.8	61.4	49.2	35.7	58.3
1936	33.0	34.6	52.4	54.0	68.6	74.2	79.9	79.0	73.6	61.8	47.6	41.4	58.3
1937	46.4	39.3	44.7	58.6	66.8	76.4	77.0	77.6	66.8	56.4	47.8	40.0	58.3
1938	42.2	44.8	53.2	59.7	65.6	72.0	77.1	79.0	69.0	59.2	52.0	40.8	59.2
1939	38.3	45.5	49.4	56.8	67.8	77.0	76.2	77.8	72.8	60.6	46.6	41.4	59.5
1940	27.3	39.9	44.6	53.6	66.0	75.4	78.6	74.4	67.9	57.8	49.5	44.4	56.4
1941	37.0	36.1	42.0	61.2	68.6	74.4	78.8	78.0	73.8	67.0	51.4	43.9	59.3
1942	36.8	36.8	49.2	60.2	70.7	75.8	80.0	75.4	72.0	61.2	46.2	37.7	58.9
1943	40.4	42.2	47.6	54.2	69.2	79.0	78.4	78.8	69.2	48.6	39.4	58.8	
1944	39.8	41.2	45.5	56.7	71.8	76.9	78.4	75.7	71.8	58.8	48.9	37.0	58.5
1945	35.0	41.8	56.6	61.3	64.2	75.6	78.6	76.6	74.4	59.2	41.3	34.6	59.0
1946	39.0	42.7	54.9	58.2	66.5	73.3	75.8	73.4	71.0	62.2	54.2	44.7	59.7
1947	45.2	34.2	41.4	58.2	67.4	72.9	75.8	79.4	71.2	64.6	47.0	39.4	58.0
1948	32.2	40.8	51.4	58.3	66.7	75.1	78.6	76.2	69.6	57.8	54.5	43.6	58.7
1949	46.4	47.8	49.2	66.8	66.6	75.4	80.2	77.0	68.2	63.6	50.8	43.9	59.0
1950	50.7	41.8	45.3	55.3	65.6	74.0	78.2	75.3	68.4	62.1	48.0	37.4	58.3
1951	41.4	42.4	47.3	56.9	65.3	74.4	78.6	76.4	70.5	62.4	45.5	43.1	58.7
1952	43.5	43.1	47.2	58.7	65.8	78.0	80.5	76.8	70.1	56.3	50.5	40.6	59.3
Normal	39.6	40.9	48.2	56.8	66.5	74.7	77.9	76.3	71.2	60.0	49.8	40.8	58.6

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
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	3.68	3.44	4.40	2.28	47.42
1904	2.34	2.71	2.59	1.57	1.45	4.11	6.25	3.00	2.60	2.60	2.55	3.71	37.84
1905	4.27	4.14	2.18	3.05	4.09	3.72	3.25	4.01	3.21	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	6.35	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	2.86	2.73	6.71	5.72	3.47	10.40	7.24	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	2.99	0.77	0.62	3.39	34.21
1910	3.38	2.38	1.42	8.74	2.67	6.40	2.90	1.07	5.03	0.98	2.50	3.34	43.14
1911	3.65	2.20	2.15	4.00	0.60	2.83	0.57	7.38	1.85	3.61	4.33	3.85	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	5.00	2.76	3.00	2.42	1.47	1.67	2.20	4.65	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	37.28
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	0.81	3.98	8.02	3.30	5.36	1.05	2.76	3.55	0.59	1.28	4.79	41.38
1919	3.84	2.22	3.51	3.25	5.19	3.90	8.92	2.62	5.94	1.71	1.31	2.30	40.11
1920	2.02	6.87	3.11	2.86	3.08	6.34	0.65	8.69	0.71	0.68	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	47.99
1924	2.98	2.34	4.00	5.11	7.36	4.85	2.33	3.05	8.58	0.78	1.61	3.40	48.36
1925	5.42	0.90	2.47	2.33	2.15	2.24	3.22	2.55	0.93	4.67	1.55	3.89	31.42
1926	3.30	3.60	1.86	2.01	1.59	2.19	2.17	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	1.98	7.19	1.95	6.05	4.01	0.40	1.20	1.45	42.89
1929	1.53	5.19	3.96	3.50	4.00	3.02	1.16	2.41	2.41	6.09	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	31.28
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	1.77	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	6.35	3.22	3.22	5.92	0.82	3.30	2.32	40.75
1935	4.41	2.13	4.00	6.40	3.81	6.22	1.84	3.63	1.73	1.73	1.91	2.12	50.86
1936	7.76	3.92	3.83	2.68	0.45	3.88	3.16	2.90	1.43	6.68	0.92	4.34	36.87
1937	10.08	2.42	1.66	6.02	1.64	8.02	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.	

