

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
 IN COOPERATION WITH Aiken Chamber of Commerce and Aiken Planning and Development Commission
 CLIMATOGRAPHY OF THE UNITED STATES NO. 20 - 38

LATITUDE 33° 34'N
 LONGITUDE 81° 44'W
 ELEV. (GROUND) 527 feet

CLIMATOLOGICAL SUMMARY

STATION AIKEN, S. C.

MEANS AND EXTREMES FOR PERIOD 1925-1954

Month	Temperature (°F)								Mean degree days	Precipitation Totals (Inches)							Mean number of days					Month	
	Means				Extremes					Mean	Greatest daily	Year	Snow, Sleet, Hail				Precip. .10 inch or more	Temperatures					
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean					Maximum monthly	Year	Greatest daily	Year		90° and above	32° and below	32° and below	32° and below		0° and below
	(a)	30	30	30	30	30	30	30					29	29	29	29		29	29	30	30		30
Jan.	60.0	38.8	49.4	84	1932	6	1940	499	3.50	2.71	1925	0.2	3.2	1936	3.2	1936	6	0	*	9	0	Jan.	
Feb.	62.3	39.7	51.0	84	1930	8	1943	400	3.99	5.52	1949	T	0.8	1936	0.8	1936	6	0	*	7	0	Feb.	
Mar.	68.4	44.9	56.7	92	1929	16	1943	300	4.19	3.39	1944	0.1	1.0	1927+	1.0	1932	7	0	0	4	0	Mar.	
Apr.	76.7	52.2	64.5	93	1925	26	1940	60	3.58	2.69	1936	0	0	0	0	0	5	*	0	*	0	Apr.	
May	83.8	60.4	72.1	100	1926	40	1940	0	2.89	2.99	1928	0	0	0	0	0	5	5	0	0	0	May	
June	89.9	68.1	79.0	108	1954	51	1929+	0	3.82	4.43	1934	T	T	1952	T	1952	6	14	0	0	0	June	
July	90.9	70.5	80.7	107	1952	58	1936	0	4.69	5.61	1939	0	0	0	0	0	6	17	0	0	0	July	
Aug.	89.9	70.0	80.0	105	1954	55	1930	0	4.40	4.70	1941	0	0	0	0	0	6	17	0	0	0	Aug.	
Sept.	86.0	65.8	75.9	106	1925	44	1942	0	3.74	7.03	1928	0	0	0	0	0	5	10	0	0	0	Sept.	
Oct.	77.7	54.6	66.2	99	1954	29	1952	57	2.44	5.59	1946	0	0	0	0	0	3	1	0	*	0	Oct.	
Nov.	67.0	44.1	55.5	85	1942	11	1950	292	2.54	3.56	1932	0	0	0	0	0	4	0	0	4	0	Nov.	
Dec.	59.0	38.0	48.5	80	1931+	11	1937	515	3.82	3.47	1941	0.2	3.2	1935	2.8	1935	6	0	*	9	0	Dec.	
Year	76.0	53.9	65.0	108	June 1954	6	Jan. 1940	2123	43.60	7.03	Sept. 1928	0.5	3.2	Dec. 1935+	3.2	Jan. 1936	67	66	*	33	0	Year	

(a) Average length of record, years.

+ Also on later dates, months or years.

T Trace, an amount too small to measure.

* Less than one half.

** Base 65° computed from average monthly temperatures rather than the actual degree-day averages.

CLIMATE OF AIKEN, SOUTH CAROLINA:

Aiken City is located centrally in Aiken county. The county borders on Georgia where the Savannah River forms a natural boundary. A four pronged narrow ridge, an off shoot from the Piedmont Plateau, extends southeastward into the county, dividing the county into two drainage areas. The west and southern portions are drained by the Savannah River, the remainder of the county by the North and South Forks of the Edisto River. The ridge ranges in elevation from about 600 feet where it enters the northwestern part of the county near Eureka, to about 530 feet at Aiken, to slightly over 400 feet near White Pond in the southeastern portion of the county. The lowest elevations averaging near 150 feet m. s. l., are in the Savannah River Valley. The county is part of the Aiken Plateau, which is primarily sand hill country and the soil ranges from sand to sandy loams. The terrain is generally rolling. Weather conditions at Aiken and Augusta appear to be quite representative for conditions in the county generally, if one allows for one-half to one degree lower averages in the winter temperatures for the northeastern third of the county.

The prevailing climate is temperate (Cfa by Köppen; Johansson Continentality Index - 38%) and is controlled largely by the characteristics of the air masses and pressure systems that march across the country throughout the year. There is an occasional inflow of maritime air for short periods during the winter. However, the biggest exception to the continental type weather is during the summer when the march of pressure systems slows down with maritime air persisting over the area for long periods of time. During the late summer and fall it is not unusual for the Aiken area to receive fringe effects from the passage of tropical storms from the Caribbean, the Atlantic Ocean or the Gulf of Mexico. There are no wind records for the immediate Aiken area but it should follow closely the pattern of Augusta. The prevailing wind at Augusta is 5.4 miles per hour from the southeast, with the fastest mile ever recorded being 48 m.p.h. The relative humidity record should follow closely the values at Augusta where the average 1 p.m. values vary from a maximum of 58 per cent in the winter to a minimum of near 49 per cent in spring and fall.

The summer temperatures are warm, characteristic of the South. There are, on the average, 5 days with values of 100 or more, 1 in June, 2 in July, 1 in August and 1 in September. The year, 1954, a record breaking hot year in the southeastern part of the nation, gave 26 days. Summer is the rainiest season of the year, during which 30 per cent of the annual rainfall is accumulated. Except for rains which might occur in connection with tropical storms the summer precipitation is in the form of showers.

The fall season, being a transition between extremes, partakes of summer weather early in September, then passes through the "Indian Summer" period to the prewinter cold spells which begin to be felt late in November. On the whole, this is the most pleasant time of year, especially the "Indian Summer" from late September to early November when rainfall is at a minimum, sunshine at a relative maximum and temperature extremes practically non-existent. The jarring note in the fall is the relative frequency of hurricane scares. Since September is the month of generally greatest hurricane frequency in the Atlantic Ocean and the Gulf of Mexico frequent warnings are issued along the coast line. So far as is known no hurricane conditions which would include damaging winds of major proportions have ever been reported. During the past 30 years heavy to excessive rains with gusty, gale force winds resulting from nearby tropical storms occurred in Sep-

tember 1928 and October, 1929. The fall rainfall is 20 per cent of the annual total.

The winter season at Aiken is relatively mild. Cold outbreaks occur from time to time broken by longer periods of above freezing. There are on the average, about 33 days with a minimum of 32 degrees or below. The typical winter should have about 3 days with a low of 20 degrees or below, one each in December, January and February and one day most likely in January, with a minimum of 15 degrees or below. Snowfall does sometimes occur during mid or late winter, although it is unusual to have a sustained cover for a day or longer. Days with a minimum of 32 degrees or below have occurred only 8 times during the past 30 years. Winter rainfall represents about 20 per cent of the annual total.

Spring is marked by rapid changes from frequently windy and cold in March to generally warm and pleasant in May. However, this is the time when alerts against tornadoes are most often issued. During the past 39 years about 6 tornadoes have been observed in Aiken county. Probably the most destructive tornado in recent times was the tornado of April 1924, although in 1955 one occurred at nearby Ridge Springs and another at Augusta. About 24 per cent of the annual rainfall occurs in the spring. Hail, although relatively infrequent, does sometimes occur. The average date of the last spring freezing temperature is March 21st, while the average date of the first fall freezing temperature is November 18th. The average growing season, or interval between these average dates, is 242 days; although freezing temperatures have been reported as late as April 26 in the spring and as early as October 18 in the fall.

The following maximum rainfall intensities have been observed at:

Wagner, S. C.	1 hour	2 hour	3 hour	6 hour	12 hour
Duration	2.26	3.04	3.85	4.33	4.33
Date	5/28/50	5/25/48	5/25/48	5/25/48	5/25/48

1941-1950 (with breaks)

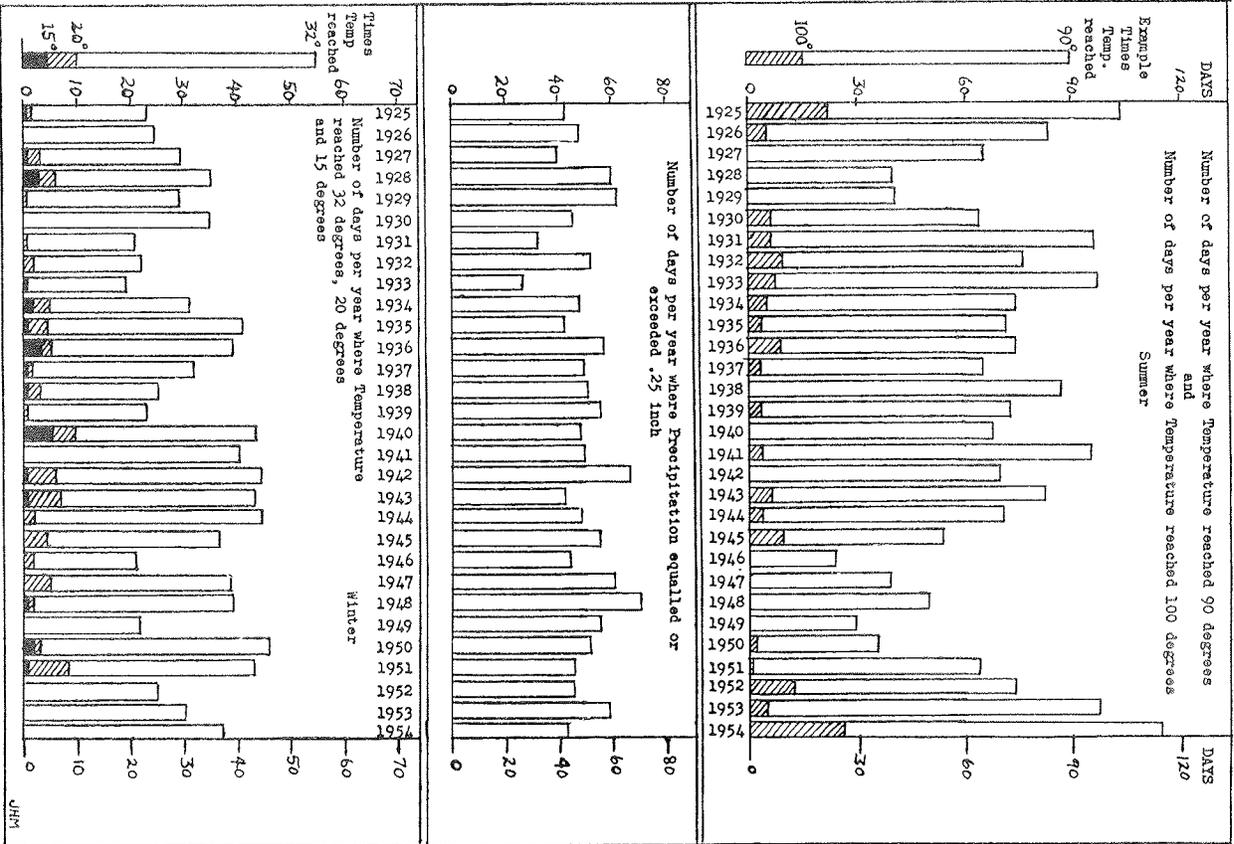
Augusta, Ga.	3.07	3.98	4.46	5.83	7.79
Duration	8/14/03	9/6/48	9/6/48	10/1/29	10/1/29

Nathan Kronberg and John C. Purvis, Climatologists, Weather Bureau Airport Sta., Columbia, S. C.

Station History:

The first known weather observations in the Aiken area, were begun in May 1854, but no records are available from these early observations. Weather records for Aiken date back to October, 1893, with the appointment of Dr. C. F. McGahan; this observation point was located eleven miles east of the Post Office, at elevation 565 feet, co-ordinates 33° 32'N and 81° 34'W. Observations were continued from this point until 1913, with Mr. H. T. Hall and C. E. Carman following as observers. From October 1913 to the present, observations were taken within the town limits, first by Mr. W. M. Brown, at the rear of the Post Office, up to April, 1916. From April, 1916 to the present, observations have been taken by Mr. F. B. McCoy, at his residence, which is located eleven miles west of the Post Office.

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Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1925	12.50	1.50	0.44	1.20	3.50	1.10	1.54	0.95	0.24	5.07	3.74	2.74	34.52
1926	7.75	3.36	5.75	1.28	2.07	6.56	9.76	3.23	2.31	0.80	1.36	1.81	46.04
1927	0.97	7.14	3.41	1.10	0.29	6.74	6.11	0.85	0.40	0.49	0.66	7.01	35.23
1928	1.70	6.36	4.52	6.20	6.74	3.89	9.87	7.19	13.17	1.41	0.29	2.54	63.88
1929	4.26	9.11	5.96	4.45	0.26	6.91	3.81	0.79	8.40	9.45	2.90	4.79	67.11
1930	5.08	0.52	3.13	1.55	0.46	2.58	4.04	1.17	5.30	2.59	3.61	2.04	32.07
1931	2.17	1.70	3.92	2.35	0.76	0.11	2.30	6.05	0.00	0.28	0.90	5.44	22.38
1932	5.18	5.77	3.82	0.80	1.84	3.04	4.68	4.08	1.12	3.47	5.91	4.84	47.22
1933	1.99	3.67	2.22	1.16	1.03	1.05	2.01	1.97	3.58	4.65	0.82	0.50	44.09
1934	1.46	3.80	4.20	1.16	6.63	8.48	1.82	0.83	4.32	4.13	0.22	2.59	44.65
1935	3.04	1.56	1.79	2.08	1.74	3.03	3.88	5.97	6.91	0.12	2.73	2.92	55.92
1936	6.21	4.02	4.17	9.17	0.52	3.41	5.74	5.41	2.88	3.87	2.42	6.10	55.97
1937	4.12	4.06	2.71	7.37	1.35	2.91	3.41	8.15	2.44	1.90	1.76	1.39	44.57
1938	1.06	0.57	2.63	8.14	4.53	4.12	6.33	1.00	3.05	0.73	4.53	3.03	40.27
1939	2.11	10.35	3.74	4.39	3.77	3.77	7.87	11.42	3.93	0.10	0.43	3.03	50.07
1940	4.99	5.15	2.80	2.24	1.93	4.79	2.45	5.57	1.18	0.88	3.72	1.34	38.82
1941	3.05	1.57	3.07	1.37	0.46	10.79	8.79	6.19	1.18	2.97	0.43	6.47	46.10
1942	3.17	4.96	9.85	1.85	4.93	4.04	3.82	4.24	4.76	0.81	4.15	4.42	38.64
1943	4.12	1.34	7.48	3.87	3.29	2.52	4.86	1.74	1.82	2.73	2.36	5.24	38.64
1944	3.70	4.78	9.20	4.25	1.20	2.62	7.77	2.59	1.12	2.73	1.38	1.73	45.07
1945	1.73	4.33	1.19	4.04	2.89	2.77	5.85	6.36	6.36	1.66	0.56	7.62	45.36
1946	3.90	1.61	3.63	4.98	3.44	1.86	7.68	3.36	2.35	7.77	3.13	0.64	44.35
1947	3.11	0.90	6.69	3.26	1.75	4.25	2.93	7.46	3.73	4.81	9.58	6.53	55.39
1948	4.76	6.50	7.19	3.26	8.18	2.39	4.91	4.71	8.79	2.75	8.21	5.88	67.13
1949	1.25	5.52	1.63	5.32	3.58	2.51	3.66	10.20	1.85	2.85	1.00	5.86	42.58
1950	-	-	4.28	1.42	4.23	4.23	4.32	3.20	3.07	2.61	2.58	2.10	31.72
1951	1.22	2.16	4.28	2.58	0.39	3.30	3.30	5.46	3.17	0.63	1.93	3.95	50.35
1952	3.46	2.55	7.21	2.81	1.68	2.60	1.44	5.46	8.16	0.00	1.05	7.43	35.13
1953	1.70	1.96	3.06	3.73	2.73	2.33	2.69	3.13	1.20	0.65	2.05	3.40	28.63
1954	1.70	1.96	3.06	3.73	2.73	2.33	2.69	3.13	1.20	0.65	2.05	3.40	28.63

Average Temperature (°F)

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1925	46.2	54.2	59.2	67.7	70.0	81.4	82.9	82.8	85.0	67.4	54.4	47.8	66.6
1926	47.2	54.0	51.6	63.2	73.2	78.1	80.2	81.0	79.2	67.6	52.3	49.0	65.1
1927	48.2	58.7	58.0	66.4	72.8	76.9	79.8	79.4	73.2	68.2	55.0	48.9	66.0
1928	47.8	48.8	57.6	62.5	69.4	75.0	78.4	79.4	73.4	63.6	57.4	48.4	64.4
1929	50.4	48.8	60.2	65.8	70.8	75.4	82.8	78.4	77.6	62.7	53.4	44.1	64.5
1930	50.2	55.5	52.6	65.8	74.3	80.0	83.6	78.8	77.6	62.0	56.2	56.2	64.5
1931	46.6	51.6	51.6	62.5	69.0	80.0	83.6	78.8	79.4	68.1	54.0	56.2	64.5
1932	57.6	57.9	55.1	65.6	71.6	79.8	84.0	80.0	75.9	65.8	54.0	54.6	66.8
1933	54.6	52.0	58.4	64.2	77.1	80.6	80.3	81.8	77.5	66.5	55.0	56.6	67.1
1934	50.2	45.5	55.4	65.2	70.5	80.4	83.4	81.8	78.8	66.5	58.1	47.4	65.2
1935	49.6	44.4	50.0	61.8	73.8	80.8	80.5	80.9	74.8	66.2	54.6	40.4	65.3
1936	44.4	45.5	60.1	62.2	71.2	79.4	82.2	82.0	77.2	68.3	54.6	50.0	64.9
1937	58.6	50.0	54.6	62.4	73.0	80.6	80.5	79.7	73.2	63.2	52.9	47.2	64.7
1938	47.6	56.4	63.0	64.4	71.1	78.9	79.3	81.9	76.1	65.8	59.0	48.2	66.1
1939	30.4	54.4	60.0	63.6	70.8	81.0	81.4	78.7	77.4	68.8	53.2	49.2	65.7
1940	36.3	48.0	54.2	62.5	69.4	79.3	79.6	79.8	74.0	68.8	52.2	52.2	65.1
1941	48.0	43.8	50.6	66.2	74.4	78.4	79.6	81.7	78.3	73.2	57.0	50.6	65.2
1942	46.8	43.8	56.8	65.4	71.6	79.0	81.6	79.3	76.3	67.1	58.6	47.6	64.5
1943	49.6	50.6	54.6	63.4	73.1	81.4	80.0	81.6	73.6	64.1	54.2	47.8	64.6
1944	47.2	54.0	56.0	63.1	73.2	80.8	79.0	77.8	76.8	65.0	54.0	43.6	64.2
1945	46.3	50.7	56.6	67.8	68.9	79.4	79.4	78.6	77.2	63.4	56.9	42.4	64.7
1946	47.5	51.6	61.5	64.8	70.2	76.6	78.3	77.4	72.8	64.6	61.0	51.8	64.8
1947	41.5	49.1	48.0	67.1	73.0	78.2	77.4	78.4	75.0	67.9	52.0	47.0	63.1
1948	41.5	43.0	48.0	66.4	72.0	78.0	80.0	78.1	72.0	61.4	60.0	52.1	64.1
1949	56.2	54.9	56.8	61.5	71.3	76.1	80.6	78.1	73.2	69.0	53.5	49.6	65.1
1950	58.6	53.1	52.8	61.3	73.0	79.5	77.3	78.1	71.6	66.8	50.7	42.6	63.7
1951	47.4	48.9	55.8	61.9	70.5	78.1	80.2	80.5	74.7	66.2	50.5	50.5	63.8
1952	54.6	51.4	55.8	62.9	73.1	83.0	82.5	82.5	73.5	62.6	55.8	46.3	65.0
1953	50.9	51.4	57.6	62.6	76.7	80.3	82.5	81.2	74.1	65.9	53.8	47.2	65.3
1954	49.3	53.8	56.3	68.7	68.8	80.9	83.6	84.2	78.5	66.4	51.8	45.7	65.6