

38

LATITUDE 33° 40'N  
 LONGITUDE 79° 49'W  
 ELEV. (GROUND) 54 feet MSL

CLIMATOLOGICAL SUMMARY

STATION KINGTREE, 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	Max.		Min.					
																			32° and below		32° and below	32° and below	32° and below			
(a)	30	30	30	30		30		30	30																	
Jan.	61.5	38.5	50.0	85	1932	10	1934	482	2.79	2.25	1925	0.2	4.0	1936	4.0	1936	6	0	*	10	0	0	0	0	0	Jan.
Feb.	63.3	39.1	51.2	84	1927	10	1936	396	3.38	2.42	1953	0.1	1.0	1942	1.0	1942	6	0	*	0	0	0	0	0	0	Feb.
Mar.	69.5	44.9	57.2	91	1935	20	1943	290	3.87	2.81	1944	T	T	1926+	T	1926+	7	*	0	0	0	0	0	0	0	Mar.
Apr.	77.6	52.0	64.8	97	1940	29	1943+	55	3.02	3.65	1936	0	0	-	-	-	6	1	0	0	*	0	0	0	0	Apr.
May	85.1	59.5	72.3	101	1941	38	1939+	0	3.00	2.55	1938	0	0	1950	1950	1950	6	8	0	0	0	0	0	0	0	May
June	91.0	67.9	79.5	106	1952	45	1930	0	4.70	3.05	1949	0	0	-	-	-	8	18	0	0	0	0	0	0	0	June
July	91.8	70.7	81.3	107	1932	56	1946	0	5.74	2.55	1928	0	0	-	-	-	9	22	0	0	0	0	0	0	0	July
Aug.	91.0	69.6	80.3	105	1954	51	1942	0	5.94	4.74	1953	0	0	-	-	-	9	21	0	0	0	0	0	0	0	Aug.
Sept.	86.9	65.2	76.1	104	1925	44	1942	0	4.77	6.90	1928	0	0	-	-	-	6	12	0	0	0	0	0	0	0	Sept.
Oct.	78.7	53.1	65.9	96	1954	27	1952	66	3.33	4.65	1944	0	0	-	-	-	3	1	0	*	0	0	0	0	0	Oct.
Nov.	68.4	42.9	55.7	86	1936+	16	1950	294	2.49	3.60	1948	0	0	-	-	-	4	0	*	7	0	0	0	0	0	Nov.
Dec.	60.4	37.4	48.9	85	1931	10	1943	500	3.31	5.45	1941	0.1	3.0	1943	3.0	1943	6	0	*	11	0	0	0	0	0	Dec.
Year	77.1	53.4	65.3	107	July 1932	10	Jan. 1934+	2083	46.34	6.90	Sept. 1928	0.4	4.0	1936	4.0	1936	76	83	*	40	0	0	0	0	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 degrees--Computed from monthly average temperatures.

Climate of Kingtree, South Carolina:

Kingtree, seat of Williamsburg County, lies in the western half of the county about halfway between the northern and southern borders. It is close to the east bank of the Black River which flows from the northwest to south-southeast in the neighborhood of Kingtree. The terrain is flat to undulating varying in elevation from near 80 ft. in town to about 25 ft. m. s. l., in the outskirts. The soil in the vicinity of Kingtree, which is located in the Coastal Terrace section of the State, is predominantly sandy loam with lesser mixtures of fine loam and loam.

The climate is temperate with rainfall throughout the year (Cfa by Köppen; Johansson Continentality Index - 38%). The low Continentality Index shows the tempering effect of the bodies of water in the vicinity, the Atlantic Ocean, 45 miles to the east, and Lakes Marion and Moultrie about 25 miles to the southwest at the nearest points. The day to day weather is controlled largely by the eastward march of pressure systems across the continent. Summer weather deviates somewhat from this pattern in that invasions of continental air are more infrequent and maritime tropical air persists for longer periods. The character of the rain during the warm half of the year is mostly of a nature connected with thunderstorm activity; while during the cold half rainfall is more uniform, being associated with overrunning moist air. The nearest relative humidity records are those of Florence. The average one p. m. values from this point range from a maximum of about 56 percent in the late summer to a minimum of about 45 percent in April and May. The prevailing wind directions vary from northerly and northeasterly during the winter months to southwesterly and southerly in the summer.

The summers are warm and relatively humid, a condition characteristic of the South. The average number of days with 100 degrees or higher is five, with one occurrence each in June, August and September and two in July. Thirty five percent of the annual rain is accumulated in summer. Since July and August comprise a substantial part of the hurricane season, the rainfall averages are affected by the few downpours which had developed as a result of the proximity of hurricanes. The heaviest 24-hour downpour was 12.60 inches in July 1916 when flooding was heavy as a result of the passage of a hurricane.

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 the year, especially the "Indian Summer" from late September to early November when rainfall is comparatively light, sunshine at a relative maximum and temperature extremes practically non-existent. The jarring note of 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 lines. Of the hurricanes in the past 30 years, the most notable one was that in September, 1928, in which gale winds and excessive rains were observed and the Black River rose to 18.0 feet, a crest stage which is still the record. The most significant hurricanes of note which brought relatively strong winds and heavy rains to the Kingtree area, were those of September, 1945 and October, 1954. The fall rainfall represents 23 percent of the annual total.

The winter months, December through February, are relatively mild. The nearby bodies of water, the Atlantic Ocean to the east and the Lakes to the southwest occasionally exert moderating influences on temperatures. There is a good chance of a snow flurry, with the best probability of its occurrence in January, but significant amounts of snow are somewhat unusual. The greatest one day snowfall, 12.0 inches, occurred on February 11, 1912. The average winter would experience 2 to 5 cold waves, or hard freezes. The lowest temperature ever recorded was 6 degrees in February, 1899. Temperatures less than 20 degrees occur about twice a winter and in only 8 of the last 30 years have there been temperatures of 15 degrees or lower. Winter rainfall is about 20 percent of the total annual amount.

The most spectacular time of the year, weatherwise, is spring with its rapid changes from windy and frequently cold in March to generally warm, fertile and pleasant in May. This is the period when severe local storm warnings and tornado alerts are most often issued for South Carolina. During the past 39 years, four tornadoes, which brought moderate to heavy damage with a few casualties, have been reported in Williamsburg County, but Kingtree, itself, seems to have been free from these damaging storms. The spring rainfall represents about 22 percent of the total annual rain.

The average date of the last freeze in the Kingtree area is March 17, while the average date of the first freeze in the fall is November 10. The interval between these average dates, the growing season, is 239 days. However, during the period of record, killing frost has been reported as late as April 21 in the spring, and as early as October 9th in the fall.

Maximum rainfall intensities recorded at Lane, about 10 miles south of Kingtree, for the period 1941-1947 are:

Duration	1 hour	2 hour	3 hour	6 hour	12 hour
Amounts	3.00	3.24	3.42	3.43	5.51
Date	8/1/47	8/1/47	8/1/47	8/1/47	12/23/41

Nathan Kronberg, John C. Purvis and Lyle B. Callahan, Climatologists, Weather Bureau Airport Station, Columbia, S. C.

Station History:

Kingtree weather records date back to 1893 with the appointment of Mr. T. F. Willis as observer. The meteorological instruments were exposed near the residence of the observer while a non-recording river gage was installed on the nearby Black River. Subsequent observations were continued within the town to 1923 with the following serving successively as observers: W. Steel, H. A. Graham, C. J. Lesene, M. Cullen, W. H. Matthews. In 1923 the meteorological instruments were moved to the residence of the Scott family about 3/4 mile east of the Post Office with Mrs. Ellen and Walter Scott serving as observers, respectively. The meteorological instruments were moved back into town to the Brown's residence in 1950 with the appointment of Mr. John M. Brown as observer. Mr. Brown has continued observations to the present.

River station located on Black River. Flood stage 12 ft. Highest flood crest of record 18 ft. Sept. 21, 1928. Lowest 1.2 ft. May 22, 1896. River station established Dec. 1, 1893.

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1925	47.6	56.4	59.4	66.8	69.4	80.0	81.2	82.3	82.3	82.3	82.3	82.3	82.3
1926	47.6	53.2	50.8	62.3	71.8	78.0	80.6	80.2	82.3	82.3	82.3	82.3	82.3
1927	48.8	59.4	57.7	64.4	72.9	76.9	78.5	77.0	82.3	82.3	82.3	82.3	82.3
1928	48.0	49.4	51.0	62.8	68.8	77.4	79.4	80.1	82.3	82.3	82.3	82.3	82.3
1929	51.6	49.4	61.4	66.4	71.2	76.2	78.8	80.3	82.3	82.3	82.3	82.3	82.3
1930	50.0	54.2	54.0	65.2	74.0	76.0	83.6	80.4	82.3	82.3	82.3	82.3	82.3
1931	47.2	50.4	51.8	62.6	70.1	78.6	80.4	79.2	82.3	82.3	82.3	82.3	82.3
1932	55.4	57.2	54.6	64.4	71.8	80.4	80.6	80.9	82.3	82.3	82.3	82.3	82.3
1933	58.4	53.3	57.8	64.4	71.8	80.4	80.6	80.9	82.3	82.3	82.3	82.3	82.3
1934	51.4	44.6	56.2	66.3	70.6	81.1	84.4	82.2	82.3	82.3	82.3	82.3	82.3
1935	50.1	51.2	64.0	65.4	73.6	80.8	80.8	80.5	82.3	82.3	82.3	82.3	82.3
1936	45.6	46.4	59.4	63.8	73.2	78.5	82.8	81.4	82.3	82.3	82.3	82.3	82.3
1937	46.2	49.1	55.1	64.2	72.4	80.8	81.2	80.9	82.3	82.3	82.3	82.3	82.3
1938	48.2	55.2	63.2	64.8	74.2	77.3	79.8	81.9	82.3	82.3	82.3	82.3	82.3
1939	51.8	57.5	60.9	65.0	71.6	82.0	81.8	80.3	82.3	82.3	82.3	82.3	82.3
1940	37.2	48.6	54.6	63.1	70.2	80.8	81.5	79.4	82.3	82.3	82.3	82.3	82.3
1941	47.0	43.6	51.0	66.4	72.1	78.5	82.1	82.0	82.3	82.3	82.3	82.3	82.3
1942	47.7	44.6	58.7	65.8	73.4	80.0	83.4	80.0	82.3	82.3	82.3	82.3	82.3
1943	50.6	51.0	56.0	63.7	74.1	83.4	81.8	81.8	82.3	82.3	82.3	82.3	82.3
1944	48.0	54.4	57.3	64.6	75.2	82.8	79.9	79.6	82.3	82.3	82.3	82.3	82.3
1945	47.0	52.9	66.0	69.5	70.1	80.2	81.4	79.3	82.3	82.3	82.3	82.3	82.3
1946	50.1	52.8	62.6	65.8	72.2	78.6	79.8	78.1	82.3	82.3	82.3	82.3	82.3
1947	53.8	44.5	49.6	68.4	73.4	77.7	77.8	74.2	82.3	82.3	82.3	82.3	82.3
1948	42.6	49.8	60.4	68.2	73.2	80.0	82.0	79.1	82.3	82.3	82.3	82.3	82.3
1949	55.8	55.5	56.0	62.7	72.3	77.7	80.7	80.7	82.3	82.3	82.3	82.3	82.3
1950	57.4	53.4	53.3	61.8	73.7	80.1	80.7	78.5	82.3	82.3	82.3	82.3	82.3
1951	47.4	47.7	56.1	61.8	69.1	79.3	80.7	80.4	82.3	82.3	82.3	82.3	82.3
1952	53.1	48.3	55.5	61.5	73.3	83.0	80.7	80.6	82.3	82.3	82.3	82.3	82.3
1953	50.6	50.3	56.9	61.8	76.3	78.3	81.1	79.2	82.3	82.3	82.3	82.3	82.3
1954	49.0	51.8	54.5	67.2	67.4	79.5	82.9	82.3	82.3	82.3	82.3	82.3	82.3

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1925	9.19	2.45	1.25	2.80	2.55	4.82	6.00	2.60	1.88	1.66	5.46	4.56	45.22
1926	5.11	3.90	4.00	1.66	1.10	6.50	4.00	4.56	4.60	0.74	3.81	0.76	40.74
1927	0.73	3.16	3.08	0.87	2.03	7.56	6.68	8.79	1.00	2.69	0.98	3.15	40.72
1928	1.25	5.28	2.77	7.49	3.69	4.25	10.92	2.47	17.95	2.23	0.99	2.75	66.79
1929	4.81	5.21	5.32	3.50	8.36	8.19	3.94	2.47	3.54	3.61	1.91	4.49	55.35
1930	5.53	0.84	5.35	1.73	0.98	5.90	4.73	6.68	4.89	2.55	2.89	5.71	47.78
1931	2.67	1.51	2.19	2.04	6.19	3.52	6.80	3.42	1.44	0.17	0.18	2.30	32.43
1932	3.32	4.36	2.29	1.01	3.65	7.43	4.65	2.97	4.56	6.06	4.27	2.91	47.48
1933	2.63	6.31	1.26	2.72	0.86	2.12	5.87	6.13	0.74	0.43	0.11	0.11	35.75
1934	1.11	4.60	1.95	1.51	5.85	3.93	3.76	8.60	5.56	1.72	4.62	1.52	44.73
1935	1.92	1.76	1.94	2.81	1.87	2.13	7.39	9.07	5.30	0.22	2.84	2.25	39.54
1936	3.83	4.01	5.91	6.22	0.35	6.12	5.99	2.99	2.00	5.56	0.94	4.15	48.87
1937	3.72	4.57	1.99	5.65	1.11	6.99	5.60	5.90	2.61	0.51	3.56	2.61	47.07
1938	1.20	0.84	3.48	5.91	3.43	5.90	6.21	2.69	5.88	0.59	1.62	1.71	40.16
1939	2.30	6.31	2.86	2.50	2.42	4.92	5.26	8.24	1.42	1.37	1.12	2.46	40.77
1940	2.65	4.97	3.30	2.50	2.80	2.55	3.12	8.82	2.29	0.05	1.61	2.46	37.12
1941	1.86	1.96	6.53	6.66	0.38	11.72	5.78	4.79	1.99	1.58	0.80	10.01	54.06
1942	1.62	3.61	6.92	6.00	2.71	5.73	3.96	6.63	1.75	0.66	1.24	3.96	39.39
1943	4.20	1.99	5.99	3.19	2.61	4.05	6.87	3.48	2.00	0.00	2.97	3.31	40.26
1944	4.21	5.09	7.94	3.02	1.10	1.25	4.91	3.85	3.91	5.19	1.30	1.16	42.93
1945	1.78	3.42	2.07	2.42	3.02	5.19	7.18	7.36	18.01	2.31	1.20	7.51	62.50
1946	3.65	2.08	2.85	3.29	3.33	2.74	5.94	7.65	3.84	6.35	2.05	0.52	44.29
1947	3.20	0.16	5.22	5.11	4.04	4.99	10.24	11.96	3.95	2.76	5.23	5.23	62.09
1948	2.85	4.38	6.13	3.12	6.74	2.05	6.99	3.36	5.76	2.90	10.20	4.26	58.74
1949	0.88	5.29	1.90	2.85	1.52	9.11	3.65	8.83	2.81	1.41	2.90	1.41	42.36
1950	1.25	0.83	4.28	0.72	3.73	3.26	6.42	4.86	9.72	3.67	1.15	4.05	43.94
1951	0.73	0.93	3.99	3.62	0.71	4.57	6.82	3.74	2.76	0.22	2.86	3.26	34.20
1952	2.45	5.81	5.85	0.80	4.22	1.18	3.56	8.46	3.09	0.16	1.82	6.71	48.58
1953	2.45	0.57	2.54	2.43	4.00	3.83	2.47	9.03	4.87	0.80	3.70	2.45	48.58
1954	1.94	0.57	2.54	2.43	4.00	3.83	2.47	9.03	4.87	0.80	3.70	2.45	48.58

