

CLIMATOLOGICAL DATA

FLORIDA SECTION

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GENERAL SUMMARY

The striking features of the weather during September, 1929, were the frequent rains, and the tropical disturbance which passed over the straits on the 28th, thence to the coast between Apalachicola and Pensacola during the afternoon of the 30th, recurring to the northeastward with accelerated movement. There is a marked similarity in the rainfall features of September, 1928 and 1929, which were the wettest of consecutive records since 1891. The average rainfall, 10.98 inches of the present month, has been exceeded by two Septembers since the Climatological Service was inaugurated in 1891, the excesses being due to the visitation, or the near approach, of tropical storms. Beginning as early as the 25th, the tropical storm controlled the weather over the Section about one week, owing to its slow rate of progression, and the fact that the recurve was far to the northward of the latitude where such changes usually take place. The rainfall was heaviest over the central division during the first half of the month; it was more uniform over the Section during the last week, -heaviest in the west on the 30th, where 24-hour totals were as much as 6 to 8 inches. As indicated elsewhere, the lowest barometer reading during the storm from regular stations was 29.06 inches at Apalachicola, although reports from the "keys" indicate a reading as low as 28.18 inches; and, as the storm center passed over the district so reporting, the correctness of the reading is not improbable.

Although winds of hurricane velocities occurred near the storm center, and gales over districts more remote, as indicated by the warnings of the Weather Bureau, the only fatalities ashore, and ascribed to the storm, were those of a negro woman and child, -the former killed at Marathon, Key West, when her shack was razed; and the child, near Wevahitchee, from a falling tree, and one drowned at Panama City. The loss of life afloat is as yet undetermined, hope and fear alternating as to the fate of some fishing boats in the Gulf.

The damage to property was heavy on the Keys where only slight precautions could be taken. It was considerable at Apalachicola, chiefly, to marine interests, and approximated \$66,000. Sundry damage at Pensacola was \$60,000. The greatest damage reported from any district occurred in Collier County, as follows: fruit and truck, \$40,000; highways, \$45,000; telephone and telegraph, \$6,000; small boats and equipment, \$3,000; loss of timber, \$150,000; building, power plants, and shops, \$46,000. It is stated that the damage to highways in the State will approximate \$300,000. The trackage of the F. E. C. railway on the keys was damaged as the result of high water; the cement structures were not harmed. A tornado occurred at Ft. Lauderdale at 4.40 p. m. September 25th, doing damage of \$100,000.

The State Citrus Exchange advises that the loss to the citrus crop will not exceed 2 per cent. The loss of both truck and fruit, however, was practically complete over districts within the immediate influence of the storm center. The loss of fruit at Homestead, to the south of Miami, was 189,000 boxes; some fruit trees were uprooted. All recently planted truck and seed beds were destroyed; cane was prostrated, and strawberries were damaged or destroyed in many instances. The loss of timber was serious over restricted areas.

TEMPERATURE

The monthly mean temperature from the records of 84 stations was 79.2°, or 0.2° below normal. The highest monthly mean was 82.4° at Key West and Long Key, and the lowest was 74.7° at Mt. Pleasant. The highest temperature was 97° at Bonifay on the 8th, Brooksville on the 15th, and Orlando on the 13th and 15th, and the lowest was 49° at Mt. Pleasant on the 21st. The greatest daily range was 29°.

PRECIPITATION

The average precipitation for the month, 86 stations reporting, was 10.98 inches, or 4.21 inches above the normal. The greatest monthly amount was 25.15 inches at Fellsmere. The greatest amount in 24 consecutive hours was 10.58 inches at Miami on the 28-29th. The average number of rainy days was 18.

DATES OF MISCELLANEOUS PHENOMENA

FOG, DENSE:--Apalachicola, 4th, 26th; Davenport, 19th, 23d, 24th, 26th; Panama City, 26th, 27th; Quincy, 4th, 13th; Starke, 5th, 9th, 10th, 21st; Vernon, 27th. HALOS, LUNAR:--Apalachicola, 21st; Arcadia, 14th; Miami, 15th, 18th; Panama City, 14th; St. Augustine, 14th. HALOS, SOLAR:--Apalachicola, 3d, 16th, 20th, 21st; Jacksonville, 17th, 29th; Key West, 1st, 3d, 21st; Miami, 2d; Panama City, 4th, 5th, 20th, 21st, 29th; St. Augustine, 13th, 15th; Tampa, 28th. THUNDERSTORMS:--Some portion of the state on every day during the month. KILLED BY LIGHTNING:--J. W. Williams, 9th, near Port Tampa; J. Parsons injured.

WBO, Jacksonville, 10-21-29-1,100.

Maximum Rainfall at Regular Stations

Stations	5 min.		10 min.		15 min.		30 min.		1 hour		2 hours		24-hours		Total Monthly
	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	
Apalachicola	0.56	1926	0.88	1926	0.93	1924	1.17	1924	1.75	1924	2.47	1924	10.12	1906	27.73
Jacksonville	0.21	30	0.32	30	0.42	30	0.59	30	1.00	30	1.63	30	4.85	29-30	8.40
Key West	0.62	1891	1.18	1891	1.54	1891	3.12	1889	3.12	1889	3.14	1907	9.86	1894	21.79
Miami	0.36	8	0.58	8	0.68	8	0.87	8	1.02	19	1.28	13	1.91	26	3.58
Pensacola	0.49	1918	0.90	1918	1.06	1918	1.71	1920	2.12	1920	2.24	1920	11.95	1919	17.29
Tampa	0.37	29	0.48	29	0.73	29	0.84	29	0.85	29	0.86	†	2.87	28-29	5.57
	0.62	1924	0.98	1924	1.32	1924	1.86	1914	2.77	1923	4.34	1928	8.61	1928	20.35
	0.27	22	0.46	22	0.66	22	1.19	22	1.92	22	2.15	22	10.58	28-29	16.82
	0.57	1920	0.99	1920	1.36	1920	2.25	1906	3.73	1906	6.14	1906	8.56	1926	17.93
	0.34	3	0.49	3	0.65	3	0.83	3	1.17	3	2.05	3	4.84	2-3	8.96
	1.05	1924	1.66	1924	2.03	1924	2.44	1924	2.76	1924	3.22	1907	6.56	1897	18.93
	0.33	8	0.68	8	0.92	8	1.29	8	1.60	8	1.97	6	3.19	6-7	13.29

* First amount greatest previous; second, current month. † 28-29

PRESSURE, WIND, HUMIDITY, AND SUNSHINE DATA

Stations	Atmospheric pressure (Reduced to sea level)					Wind (3-cup anemometer)			Mean relative humidity		Percentage of sunshine		
	Mean	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	8 a. m.		Noon	8 p. m.
Apalachicola	29.93	30.17	1	29.06	30	10.0	59	se.	30	87	74	80	46
Jacksonville	29.93	30.17	1	29.67	30	9.5	37	se.	36	87	72	84	50
Key West	29.83	30.01	4	29.21	28	9.7	66	w.	28	79	70	78	73
Miami	29.92	30.08	3	29.41	28	9.3	56	ne.	28	81	70	80	52
Pensacola	29.95	30.13	3	29.19	30	12.3	70	e.	30	83	79	85	61
Tampa	29.93	30.08	1	29.53	29	6.0	33	e.	29	89	86	85	58

COMPARATIVE DATA FOR SEPTEMBER

Year	Temperature					Precipitation				Number of days			
	Mean	Departure	Highest	Lowest	Average	Departure	Greatest monthly	Least monthly	Greatest in 24 hours	With precipitation (0.01 inch or more)	Clear	Partly cloudy	Cloudy
1891..	78.9	-0.5	94	59	8.23	+1.46	16.00	0.95	1.73	14	10	14	6
1892..	78.5	-0.9	94	60	9.58	+2.81	16.67	1.73	5.55	17	7	14	6
1893..	78.9	-0.5	160	59	6.41	-0.36	12.49	2.23	1.73	14	11	11	6
1894..	78.8	-0.6	100	59	13.31	+6.54	19.78	4.11	12.50	10	14	10	6
1895..	79.5	+0.1	96	57	4.77	-2.00	9.13	1.14	3.30	12	11	15	6
1896..	79.5	+0.1	100	48	4.42	-2.35	11.12	0.70	5.11	10	9	15	6
1897..	77.2	-2.2	99	46	10.71	+3.94	23.01	1.94	10.25	13	10	9	9
1898..	80.0	+0.6	97	52	5.35	-1.42	17.93	1.19	4.73	12	12	13	5
1899..	78.2	-1.2	97	40	4.78	-1.99	11.27	0.14	2.76	10	13	13	4
1900..	80.4	+1.0	99	56	4.75	-2.02	10.50	0.80	3.87	10	16	10	4
1901..	79.1	-0.3	98	54	8.33	+1.61	17.55	3.37	8.00	10	12	10	8
1902..	79.4	0.0	100	53	9.44	+2.67	20.25	3.37	6.00	16	8	14	8
1903..	77.9	-1.5	103	43	7.28	+0.51	19.04	0.00	9.00	9	14	10	6
1904..	79.4	0.0	102	50	4.36	-2.41	8.92	0.29	4.35	9	14	12	4
1905..	80.6	+1.2	103	58	7.62	+0.85	17.73	2.58	10.00	12	12	12	6
1906..	80.8	+1.4	100	60	5.50	-1.27	19.30	1.04	10.12	10	14	11	6
1907..	80.0	+0.6	102	56	8.58	+1.81	20.05	2.94	8.00	15	9	15	6
1908..	78.5	-0.9	98	46	9.45	+2.68	21.79	0.51	9.79	14	9	13	8
1909..	78.5	-0.9	98	42	4.09	-2.08	18.16	0.75	5.90	9	14	12	4
1910..	79.3	-0.1	100	48	3.22	-3.55	10.35	0.46	3.88	7	16	11	3
1911..	81.2	+1.8	100	58	3.95	-2.82	14.27	0.40	3.88	9	16	11	3
1912..	80.5	+1.1	103	64	9.54	+2.77	28.14	2.08	3.95	15	9	12	9
1913..	78.0	-1.4	98	41	5.89	-0.88	22.87	1.78	6.55	11	12	13	6
1914..	77.8	-1.6	100	50	7.27	+0.50	13.41	2.42	5.83	13	8	13	9
1915..	80.9	+1.5	101	58	4.97	-1.80	10.70	0.97	7.71	10	14	10	6
1916..	78.5	-0.9	97	46	4.95	-1.82	9.99	1.50	5.77	11	12	12	6
1917..	78.4	-1.0	101	49	7.73	+0.96	13.71	2.27	6.67	15	8	12	10
1918..	77.6	-1.8	98	44	6.42	-0.35	14.22	1.85	4.34	11	12	12	6
1919..	79.5	+0.1	99	50	4.33	-1.94	14.26	2.03	11.95	11	14	12	4
1920..	79.8	+0.4	101	48	8.09	+1.32	14.60	2.08	8.00	14	11	12	7
1921..	81.6	+2.2	103	56	2.25	-4.52	8.20	0.08	2.84	7	18	10	2
1922..	78.5	-0.9	101	49	7.75	+0.98	17.85	1.17	7.91	15	10	12	8
1923..	79.7	+0.3	98	57	4.75	-2.02	9.83	1.02	4.25	12	13	12	5
1924..	78.8	-0.6	102	43	8.31	+1.54	27.73	2.79	12.93	14	9	11	10
1925..	82.6	+3.2	107	62	2.44	-4.38	7.28	0.34	3.95	7	17	10	3
1926..	80.9	+1.5	98	61	7.93	+1.16	21.23	1.80	10.00	13	11	11	8
1927..	79.5	+0.1	102	49	4.14	-2.63	11.91	0.73	4.78	10	13	13	4
1928..	79.1	-0.3	99	48	11.61	+4.84	20.82	4.75	8.61	16	8	10	12
1929..	79.4	-0.2	97	49	10.98	+4.21	25.15	3.94	10.58	18	6	12	12

Climatological Data for September 1929

Table with columns: Stations, Counties, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range), Precipitation (Total, Departure from normal, Greatest in 24 hours, Snowfall, un-melted, With 0.1 or more precipitation), Number of days (Clear, Partly cloudy, Cloudy), Prevailing direction of wind, Observers.

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining state means.

References letters a, b, c, appearing in the table indicate number of days missing; for example, b represents two days, etc. If Post-office addresses of these stations are as follows: of Isleworth, Wimmerere; Mammoth Grove, Lake Wales; Merritts Island, Cocoa; Chapman Field Garden, Coconut Grove; Davie, Ft. Lauderdale; Pinecrest, Miami; Garniers, Valparaiso; Metts, Route "D"; Milton.

T. Precipitation is less than 0.01 inch rain or melted snow. § Received too late to be included in State means and extremes. † Also on other dates.

Daily Precipitation for September 1929

Table with columns for Stations, Drainage Basin, Day of month (1-31), and Total. Rows are categorized into Northern, Central, Southern, and Western Divisions.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.
*** Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.
||| Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.
T. Trace, or less than 0.01 inch. * Amount included in the next measurement. † Incomplete. * 10.04 * 10.42.

Daily Temperatures for September 1929

Table with columns for Stations, days 1-31, and Mean. Rows are categorized into Northern Division, Central Division, Southern Division, and Western Division. Each station entry includes Maximum and Minimum temperature values.

*, b, etc., indicate respectively 1, 2, 3, etc., days missing from record.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day on which it almost always occurs.