

the coast stations, during the Gulf storms, the reports have shown quiet airs in general. The motion of cirrus has been remarkably uniform from west to east, except on the coasts. This has been due to the moderate character of the lows or to their lack of intensity, their influence rarely extending as high as cirrus.

**LOCAL STORMS.**

By A. J. HENRY, Chief of Division of Records and Meteorological Data.

There were very few severe local storms during the month. Two West India hurricanes crossed the Gulf and South Atlantic coasts, causing dangerous winds and destructive tides at a few points. The most serious disasters occurred on the Texas Coast about 7:30 p. m. of the 13th. Thirteen lives were lost and property to the value of \$150,000 was destroyed, the destruction being due to the combined forces of high winds and tides.

One low area storm moved from the upper Missouri Valley on the 14th to the Atlantic Coast, reaching the latter on the 17th. This disturbance was accompanied by severe thunder storms throughout the Missouri Valley, the Lake Region, and the Ohio Valley.

A West India hurricane passed northeastward across the Peninsula of Florida on the 20th, thence along the Atlantic Coast, finally disappearing south of New England on the 24th. The winds were not unusually dangerous, although considerable damage was done to exposed property on the beach. Reports from vessels that encountered the storm indicate that its center was several hundred miles east of the coast line.

**TEMPERATURE OF THE AIR.**

[In degrees Fahrenheit.]

The temperature was below normal on the Pacific Coast and in Florida, and there were also slight deficiencies in New Jersey, New York, and generally throughout New England. Elsewhere the month was unusually warm, especially so in the States of Iowa, Illinois, Missouri, Kansas, Nebraska, North Dakota, South Dakota, and Minnesota. In this large region the DAILY excesses of temperature exceeded 5° on the average of the month. Maximum temperatures, ranging from 90° to 100°, prevailed almost continuously from the 1st to the 16th. Prostrations, and in a few cases deaths, due to the extreme heat occurred in Chicago on the 9th, 10th, 11th, 13th, 14th, and 15th. The unusual heat was coupled with clear skies, southwesterly winds, and a low degree of humidity, conditions which are not especially hurtful to the human organism, however injurious they may be to vegetable life. Cool nights in many localities greatly lessened the discomfort of the heat. Serious bodily discomfort is rarely experienced except when the minimum temperature, or the temperature of nighttime, does not fall below 75°. It will be noticed that in the majority of cases in the table following that the temperature of nighttime fell to or below 75°; also, that the temperature of evaporation and the relative humidity were low, except in a few cases. No prostrations by heat were reported from the harvest fields or in the smaller towns and cities.

On the 14th an area of cloud and rain formed in Kansas and Nebraska and passed eastward, reaching the Atlantic Coast on the 17th, bringing relief from the unseasonable temperatures that had prevailed since the first of the month. The temperature rose after the passage of the storm, and the month closed with temperatures generally above the normal.

The mean temperatures and the departures from the normal, as determined from records of the maximum and minimum thermometers, are given in Table I for the regular stations of the Weather Bureau, which also gives the height of the

thermometers above the ground at each station. The mean temperature is given for each station in Table II, for voluntary observers.

*Climatic statistics during the continuance of the hot weather.*

**CHICAGO, ILL.**

September, 1897.	Max. temp.	Min. temp.	Wet thermometer.		Relative humidity.		Daily wind movement.
			8 a. m.	8 p. m.	8 a. m.	8 p. m.	
1	71	65	60	67	60	66	344
2	69	64	63	65	68	65	307
3	71	66	63	66	78	61	401
4	76	62	58	68	65	75	405
5	85	64	59	67	66	40	393
6	85	71	61	68	52	66	344
7	84	69	60	66	52	53	361
8	92	74	62	70	45	41	389
9	94	73	63	66	48	32	363
10	94	70	63	68	52	54	361
11	73	67	68	68	90	93	390
12	86	70	69	72	82	77	223
13	82	72	63	70	54	86	308
14	91	72	71	70	66	44	258
15	91	74	67	77	64	64	491
16	81	64	70	62	63	66	361
Mean	83	68	64	68	66	65	361

**BISMARCK, N. DAK.**

1	74	54	58	66	87	65	224
2	96	62	64	69	89	33	306
3	100	75	64	65	50	24	422
4	84	61	58	60	74	20	210
5	87	54	48	62	43	30	260
6	90	60	57	68	79	43	312
7	102	58	57	64	86	18	154
8	100	62	60	65	42	52	363
9	67	49	46	53	79	42	373
10	63	48	45	54	79	55	198
11	86	56	54	67	80	49	231
12	78	55	57	58	87	41	141
13	83	56	50	70	65	67	255
14	84	61	62	57	78	32	276
15	63	42	43	43	86	90	241
16	58	32	31	46	85	58	167
Mean	82	55	53	60	74	45	251

**OMAHA, NEBR.**

1	99	74	67	72	70	36	216
2	97	73	68	70	78	30	178
3	94	71	66	69	73	28	272
4	96	70	64	69	61	24	268
5	98	78	68	70	50	88	240
6	93	71	64	67	66	28	227
7	92	69	64	70	70	40	248
8	90	72	66	69	69	39	277
9	92	72	68	70	73	44	195
10	84	61	58	72	79	78	108
11	86	67	67	74	92	63	125
12	93	73	69	72	84	49	122
13	93	73	65	69	67	28	143
14	86	72	67	70	70	54	232
15	86	68	68	74	95	72	109
16	76	50	49	50	76	44	338
Mean	91	69	65	69	73	46	205

**ST. LOUIS, MO.**

1	96	75	70	73	78	42	161
2	94	75	68	74	65	46	106
3	93	72	68	73	75	54	194
4	91	67	63	67	70	36	160
5	93	70	64	67	70	34	158
6	98	68	67	68	82	35	136
7	95	71	62	72	48	41	151
8	95	74	69	68	67	32	156
9	96	74	66	68	60	33	164
10	96	75	66	70	62	36	154
11	95	77	69	73	65	54	140
12	98	74	68	67	64	27	86
13	95	74	66	73	57	49	146
14	96	73	69	72	74	44	180
15	98	75	70	73	74	42	206
16	91	69	71	70	63	34	289
Mean	95	73	67	70	66	43	164

The monthly mean temperatures published in Table I, for the regular stations of the Weather Bureau, are the simple means of all the daily maxima and minima; for voluntary