

be little doubt that the large radiation receipt in 1932 was due in part, at least, to decreased manufacturing. In the January issue of the MONTHLY WEATHER REVIEW (60: 256) we find the following statement:

The outstanding feature for the year (1932) is the unprecedented large increase in radiation received on a horizontal surface from the

sun at various places throughout the country. Without doubt the business depression was an important indirect factor in this increase. It will be noted that the large cities of New York and Chicago show the greatest plus departures. Dust and smoke records from these two cities show a marked diminution for the year, which would be expected as the amount of manufacturing had fallen off greatly during this period.

TABLE 1.—Departures of normal incidence radiation in the United States

Month	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
January	100	100	99	101	104	102	100	100	103	102	103	104	105	101	102
February	98	97	103	100	103	102	97	100	103	103	102	102	105	102	103
March	101	94	103	102	102	101	96	98	105	102	99	96	103	102	102
April	101	95	101	106	102	100	96	98	104	102	98	100	102	102	103
May	98	97	101	109	102	98	99	96	102	104	99	107	106	103	110
June	99	98	98	107	103	96	103	98	104	106	100	105	109	104	108
July	102	100	97	105	103	98	101	100	106	106	104	105	102	103	104
August	106	101	98	105	102	96	99	100	107	108	106	106	98	104	101
September	108	100	102	104	100	95	99	98	107.5	106	105	109	101	102	102
October	105	101	103	102	100	97	100	98	108	104	103	109	103	101	103
November	102	94	102	102	101	98	100	100	106	103	102	106	102	102	102
December	101	98	100	104	101	100	100	102	105	103	101	105	100	102	103
Year	+1.7	-2.1	+0.6	+3.9	-1.9	-1.4	-0.8	-1.0	+5.0	+4.1	+1.8	+4.5	+3.0	+2.3	+3.6

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TROPICAL DISTURBANCE OF SEPTEMBER 24-26, 1939, IN THE GULF OF MEXICO

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[Weather Bureau, Washington, October 1939]

Only one tropical disturbance was reported during September. There was unsettled weather over the extreme northwestern part of the Caribbean Sea early on September 23. It is probable that this disturbed condition moved northwestward across the British Honduras and Yucatan during the 23d and early 24th under influence of a tropical disturbance that apparently developed about 100 miles east of Vera Cruz, Mexico, between September 20 and 22.

A report received by mail from the American steamer *Aztec* states that westerly winds of force 8 during squally weather were experienced from late on the 22d to early on the 24th in the southwestern part of the Gulf of Campeche and that there were heavy northwesterly swells.

At 7 p. m. (E. S. T.) of the 24th there was a fairly definite circulation, with slightly depressed barometer, near latitude 22° N., longitude 92° W., with winds of force 3-5 reported by ships within the area 20°-25° N., 90°-95° W.

During the 25th the central barometer had deepened somewhat and squally winds about the center showed local increases in force. At 7 a. m. of the 25th, in 26°05' N., 91°45' W., the Panamanian motorship *Cubahama* experienced a north-northeast gale of force 9, which is the highest wind velocity reported by a ship in connection

with the depression. Her barometer, in a report later received by radio, was given as 1,005.8 millibars (29.70 inches). This reading, following the result of a later comparison at Mobile, was corrected to 1,003.7 millibars (29.64 inches), which is the lowest pressure reported for the disturbance.

On September 26, at 7 a. m. (E. S. T.), as the center was entering the coast, the American steamer *Roanoke*, at some distance to the southward, had a south-southwest wind of force 7, barometer 1,010.2 millibars (29.83 inches), in 27°56' N., 89°00' W. Quoting from the report of W. R. Stevens, forecaster on duty at the New Orleans office of the Weather Bureau:

The disturbance moved inland south of New Orleans a short distance west of Grand Isle the morning of September 26, with only fresh winds near the center. A passing squall caused a southwest wind of 49 miles per hour at Pensacola, Fla., the morning of September 26 after the disturbance had moved inland.

No report of damage or loss of life has been received.

Advisory warnings of the disturbance were issued by the Weather Bureau at New Orleans at frequent intervals from 9:30 a. m. (E. S. T.) of the 25th until 9:45 a. m. (E. S. T.) of the 26th. Chart XIII shows the path of the disturbance from the 24th to 26th, and the general situation on the morning of the 25th.