

Synopsis of tropical storms 1936 (number of storm in table corresponds with number of track on accompanying chart)—Continued

| Storm | Date | Place where first reported | Coast lines crossed | Maximum wind velocity reported | Lowest barometer reported | Place of dissipation | Intensity | Remarks |
|-------|-------------------|----------------------------|----------------------------|------------------------------------|---------------------------------|------------------------|-----------------------------|---|
| XIII | Sept. 8-26..... | Near 13° N., 50° W. | Passed near Cape Hatteras. | 80, NW., Hatteras..... | 23.49, S. S. <i>Limon</i> | North Atlantic.. | Hurricane..... | A violent hurricane of large diameter; damage \$1,600,000. D. |
| XIV | Sept. 11-13..... | Bay of Campeche. | Texas..... | Force 8, S. S. <i>Nemaha</i> .. | 29.54, Brownsville..... | Southern Texas. | Not of hurricane intensity. | D. |
| XV | Sept. 19-24..... | Near 20° N., 62° W. | Nova Scotia..... | Force 12, S. S. <i>Saramacca</i> . | 28.94 S. S. <i>Saramacca</i> .. | Nova Scotia..... | Hurricane..... | D. |
| XVI | Sept. 25-Oct. 1.. | East of Florida.. | Florida..... | | | Off New England coast. | Minor..... | |
| XVII | Oct. 9, 10..... | Bay of Campeche. | Mexico..... | | | Mexico..... | do..... | |

More complete reports in MONTHLY WEATHER REVIEW: (A) June 1936; 64: 204, 205. (B) July 1936; 64: 238, 239. (C) August 1936; 64: 267, 268. (D) September 1936; 64: 297-299

EXTRATROPICAL DISTURBANCE IN LOW LATITUDES OF MID-ATLANTIC, DECEMBER 1936

By JEAN H. GALLENNE

[Marine Division, Weather Bureau, Washington, January 1937]

A disturbed condition, which appeared over the eastern Atlantic near the twenty-fifth meridian at about 30° N., on December 4, pursued an unusual course and attained considerable force on the 7th in mid-Atlantic. The track of the center of this disturbance is given on chart XI. Reports do not clearly show its movement from the 6th to 7th (dotted portion of track), and the center shown by observations on chart X may have been a fresh development. Its subsequent course to the south-southwestward carried it to low latitudes (apparently south of the twentieth parallel) on the 9th, after which it recurved and moved northwestward before dissipating on the 12th.

Pressure attending this disturbance was unusually low for the latitude and season; and the interruption of the trade winds over a considerable area was noted in many vessel weather reports. During this time the Atlantic anticyclone was well developed, but lay north and east of its usual position.

In fact, a ship report of 30.89 inches on December 8 at 44.5° N., 18.2° W. indicates an abnormal development and position of the Atlantic anticyclone. By the time the disturbance had dissipated, the anticyclone had assumed a position farther west than normal, with unusual development—pressure 30.74 inches on December 12.

At the time of the first appearance of the disturbance, observations from a number of ships indicated that barometric pressure over the North Atlantic Ocean in the vicinity of 31° N. and 32° W., was considerably below normal. A fairly well developed cyclonic wind circulation existed at 7 a. m. of the 5th. The Dutch steamship *Venezuela* at 9:32 a. m. (local mean time) of the 5th, when near 31° N. and 37° W., reported wind of force 6 from the west, barometer reading 29.87 inches. Winds of force 8 were also reported from ships in the northerly quadrant of the depression, on that date.

Progressing in a northwesterly direction during the next 24 hours, this disturbance was centered near 33° N. and 35½° W. at 7 a. m. (e. s. t.) of December 6. On the morn-

ing of that day, it appeared to be moving into a low trough which extended to the north-northwestward toward Julianehaab, Greenland; but due to the southwesterly trend of high pressure, which had overspread the northern portion of the Atlantic Ocean, its course was directed more to the westward.

The Italian steamship *Clara* at 9:50 a. m. (local mean time) December 6, when near 33° N. and 33¼° W. reported SSE. winds of force 5, rough sea, barometer reading 29.74 inches. This same vessel subsequently reported that at noon, near 33° N. and 33°40' W., SSE. winds of force 7 were encountered and that the barometer was falling. During the afternoon the wind shifted through S. to SSW., increasing to force 9-10, accompanied by a very high sea. The barometer continued to fall until 4 p. m. The barometric minimum, 29.41 inches (corrected), occurred at that time; the vessel reported her position to be 32°59' N. and 33°58' W.

Fresh to high winds were encountered by several ships near the path of the disturbance during the 6th. On the morning of the 7th, the British motorship *Benedick* at 8:42 a. m. (l. m. t.) when near 32°43' N. and 49°23' W., reported squally weather with NNW. wind of force 9 and a barometer reading of 29.65 inches. High winds accompanied by rain were also experienced on the 7th by vessels near the center of the disturbance at latitude 32° N. and 47° W. (chart X).

The steamship *West Irmo* noted whole gales from the NNE., with barometer reading 29.77 inches, on the morning of the 8th, when near 26° N. and 56° W. At the p. m. observation of the 8th this same vessel when near 24½° N. and 54½° W., reported NE. wind, force 8; barometer 29.74 inches. The disturbance was then moving south-southwestward.

During the period of recurve on December 9 and thereafter until the disturbance dissipated on the 12th near 25° N., 53° W., ships' reports do not indicate that there were any winds of gale force.

