

TYPHOONS AND DEPRESSIONS

A MOST DESTRUCTIVE TYPHOON OVER THE CENTRAL PART OF THE PHILIPPINES NOVEMBER 23 AND 24, 1928

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[Weather Bureau, Manila, P. I.]

On November 23 the Philippines were visited by one of the most destructive typhoons we have experienced in recent years, causing along its path very great damages to the crops and property, and a considerable loss of lives, probably from 100 to 200, in spite of the timely warnings wired to the threatened Provinces by the Weather Bureau. The interisland steamer *Euzcadi* was completely wrecked near the northern coast of Samar, and the Japanese steamer *Saka Maru* was grounded on the shores of Masbate. Several other ships and boats were either wrecked or grounded in the interisland seas south of Luzon.

The origin of this typhoon was in the neighborhood of 145° longitude E., between 8° and 9° latitude N., over the Western Carolines to the south of Guam, on the 18th to 19th of November.

It moved WNW. on the 19th, W. by N. on the 20th, and practically due W. on the 21st, with a little inclination to WSW on the 22d, the rate of progress of the storm during those days being about 12 or 13 miles per hour. While traversing the Philippines the rate of progress between Samar and Mindoro was only about 10 miles per hour and the direction of the typhoon was WNW.

The center of the typhoon entered the Philippines at 3 a. m. of the 23d across the eastern coast of Samar to the north of Borongan, where a barometric minimum as low as 710.71 mm. (27.98 ins.)¹ was recorded. After Samar the center traversed Masbate Island, passed near to the north of Romblon, and reached Mindoro Island shortly after midnight of the 23d. From Mindoro the track of the typhoon inclined to NW. by W. This direction was kept practically until the evening of the 25th.

For nearly two days the typhoon remained almost stationary over the China Sea in the neighborhood of 116° longitude E. and 17° latitude N., while it completed a very acute recurve to the E., thus threatening the northern part of Luzon. Yet the typhoon had lost already much of its former intensity, and so it was forecast by the Weather Bureau that not much stormy weather was to be expected in northern Luzon at the passing of the center in its movement to the east. It was about 7.30 p. m. when the typhoon struck the western coast of northern Luzon close to Vigan, where a barometric minimum not lower than 745.18 mm. (29.34 ins.)¹ was observed, and the winds blew with a force not greater

than 7 (Beaufort scale). After striking the coast, the storm became less and less deep so as to appear on our weather maps as a shallow depression of little importance.

The approximate positions of the center at 6 a. m. during the period of November 20 to 29 were as follows:

November 20, 6 a. m.	139° 45' longitude E., 10° 40' latitude N.
November 21, 6 a. m.	134° 30' longitude E., 12° 00' latitude N.
November 22, 6 a. m.	129° 35' longitude E., 12° 15' latitude N.
November 23, 6 a. m.	125° 00' longitude E., 11° 50' latitude N.
November 24, 6 a. m.	121° 10' longitude E., 13° 00' latitude N.
November 25, 6 a. m.	117° 45' longitude E., 15° 00' latitude N.
November 26, 6 a. m.	116° 00' longitude E., 17° 00' latitude N.
November 27, 6 a. m.	116° 00' longitude E., 17° 00' latitude N.
November 28, 6 a. m.	117° 55' longitude E., 17° 45' latitude N.
November 29, 6 a. m.	123° 00' longitude E., 17° 10' latitude N.

The Provinces that suffered most the effects of this destructive typhoon either by hurricane winds or by heavy floods or storm waves were Samar, northern Leyte, Sorsogon, Albay, Masbate, Capiz, Romblon, Marinduque, the southernmost part of Tayabas and Mindoro.

Besides the Philippine typhoon there was another, also very severe, over the Pacific, which fortunately did not strike either the Philippines or Japan, but remained over the Pacific after recurving to the southeast of the Loo-choos.

The first signs of the formation of this typhoon were shown by our weather maps of November 21, 6 a. m., to the WSW. of Ponape in about 154° longitude E. and 5° latitude N. It moved NW. by W. until the morning of the 25th, NW. from the afternoon of the 25th to the evening of the 27th, when it began to incline to the N. On the 28th it completed the recurve northeastward, and in the afternoon of the 29th it passed not far to the north of the Bonins, moving ENE. Its center could still be noticed at 6 a. m. of the 30th in about 150° longitude E. and 30° latitude N., moving eastward. The barometric reading recorded at Chichijima (Bonin Islands) at noon of the 29th was 745.5 mm. (29.35 ins., gravity correction applied) when the center was about 150 miles to the WNW. of that station.

The approximate positions of the center at 6 a. m. of the period November 24 to 30 were as follows:

November 24, 6 a. m.	145° 45' longitude E., 9° 45' latitude N.
November 25, 6 a. m.	143° 05' longitude E., 11° 10' latitude N.
November 26, 6 a. m.	139° 15' longitude E., 13° 45' latitude N.
November 27, 6 a. m.	135° 30' longitude E., 17° 20' latitude N.
November 28, 6 a. m.	132° 40' longitude E., 20° 20' latitude N.
November 29, 6 a. m.	137° 00' longitude E., 26° 15' latitude N.
November 30, 6 a. m.	150° 00' longitude E., 30° 00' latitude N.

The U. S. S. *Ramapo* was not far from the center of this typhoon at 12 m. n. of the 27th when she reported a barometric reading 29.48 ins. (corrected for gravity) and winds from SW. by W., force 7, in 131° 00' longitude E., 18° 20' latitude N.

¹ Gravity correction not applied.