

seems to have attained great violence on the 2d and 3d. The Japanese steamer *Shinyo Maru* encountered a southwest wind, force 12, lowest pressure 29.26 inches, in connection with this storm on the early morning of the 3d, in 33° N., 151° E., and reported receiving a typhoon warning which had been issued at 6 p. m. of the 2d by the Tokyo Observatory to the effect that the storm center was then located at 33° N., 154° E., lowest pressure 27.95 inches.

Father Coronas notes the "third Pacific typhoon" as being north of the Bonins (Ogasawara) at noon of the 28th. Further information given by the American steamer *President Grant* shows that the storm continued to the eastward and on the 29th was blowing a northeast hurricane in 30° N., 150° 42' E., lowest observed pressure, 29.13 inches.

One depression is noted on the Mexican weather maps as appearing off the Mexican coast south of Acapulco on the 19th and 20th. The wind circulation near 15° N., 100° to 105° W., was cyclonic, and the seas were heavy and confused, but no gales were reported there by our observers. Strong northeast gales of the norther type, however, occurred on the 18th in the Gulf of Tehuantepec, as well as northeast winds of force 7 on the 19th.

At Honolulu trade winds prevailed except on the 19th, when there was a mild kona. The prevailing direction here was from the east, and the maximum velocity, 28 miles from the east, on the 24th.

Fog decreased somewhat in northern waters since September, but was reported to have been observed on from 1 to 3 days in the several 5-degree squares between the central Aleutians and the Kuril Islands. It occurred on about 15 per cent of the days over the area east of 150° W., between the 45th and 50th parallels. Some 30 to 40 per cent of fog formed off the central California coast, and 30 per cent southward to the 30th parallel. Less than 20 per cent was reported from Washington and Oregon coast waters.

TYPHOONS AND DEPRESSIONS

FIVE TYPHOONS OVER THE FAR EAST IN OCTOBER, 1927

By Rev. JOSÉ CORONAS, S. J.

[Weather Bureau, Manila, P. I.]

There have been two well-developed typhoons over the Philippines, and three other distant typhoons over the Pacific during this month of October.

Typhoon of the Visayas, October 5.—This typhoon was shown for the first time in our weather maps on October 1 to the southwest of Guam near 142° longitude E., and 11° latitude N. It moved almost due west, with a very light inclination to the north, until it reached the eastern coast of Samar close to Borongan at 11 p. m. of the 4th, the barometric reading at Borongan being then 744.84 mm. (29.32 inches). The direction of the typhoon from Samar to the north of Capiz was practically west.

The approximate position of the center at 6 a. m. of the 2d to 5th was as follows:

October 2, 6 a. m., 140° 10' longitude E. 10° 45' latitude N.
 October 3, 6 a. m., 135° 00' longitude E. 11° 00' latitude N.
 October 4, 6 a. m., 129° 30' longitude E. 11° 20' latitude N.
 October 5, 6 a. m., 123° 30' longitude E., 11° 55' latitude N.

From the north of Capiz there was an inclination of the track to WNW., and the center passed near to the north of Tourane, Indo-China, in the afternoon of October 7.

Considerable damage was done by this storm in the Provinces of Samar, Masbate, Capiz, Iloilo, and Romblon. Some small boats were wrecked to the north of Capiz with a good number of victims.

Typhoon of southern Luzon, October 9.—The first part of the track of this typhoon is at present rather indefinite owing to lack of observation from Yap, Western Carolines. It would seem that it was formed on October 4 to 6 to the south of Guam near 145° longitude E. and 9° latitude N. It probably moved WNW, on the 6th, 7th, and morning of the 8th. In the afternoon it took a decidedly westerly direction and touched the northernmost coast of Camarines Norte in the morning of the 9th. At 2 p. m. the center was situated over the coast of Luzon practically to the east of Manila, very near Infanta, and passed close to the south of Manila at about 4 p. m. of the same day. An inclination of the track to WNW was noticed after 6 a. m. of the 10th in the China Sea. The center reached Indo-China at about 4 p. m. of the 11th.

Some damage was done also by this typhoon in the Provinces of Camarines Norte, Laguna, and Rizal.

The approximate position of the typhoon at 6 a. m. of the 8th to 11th was as follows:

October 8, 6 a. m., 132° 40' longitude E., 13° 00' latitude N.
 October 9, 6 a. m., 122° 50' longitude E., 14° 25' latitude N.
 October 10, 6 a. m., 117° 15' longitude E., 14° 35' latitude N.
 October 11, 6 a. m., 110° 50' longitude E., 16° 40' latitude N.

Three other distant typhoons over the Pacific.—The first of these typhoons appeared to the west of the Bonins in the early morning of October 1, and at noon the center was passing close to the north of said islands with a barometric reading 742.5 mm. (29.23 inches). The typhoon was moving E. by N.

The second Pacific typhoon was shown by our weather maps of the 13th to the east of Guam near 150° longitude E. and 13° latitude N. It moved NNW. on the 13th, and NW. on the 14th and 15th. In the afternoon of the 16th it recurved northeastward near 143° longitude E. and 21° latitude N.

The third Pacific typhoon was probably formed to the southeast of Guam on October 19. It moved WNW. until the 24th, when it inclined decidedly to the north near 130° longitude E. and 14° latitude N. It continued moving practically to the north until noon of the 27th, when it recurved to ENE. near 130° longitude E. and 25° latitude N. The center passed not very far to the north of the Bonins at noon of the 28th.