

In the dearth of cyclones in upper and middle latitudes east of longitude 170° W., very few gales occurred there except during the last few days of the month, and most of those of the 27th to 30th did not exceed 9 in force.

West of the 170th meridian, on the contrary, the period of greatest quiet was that of the 3d decade, while the periods of greatest activity were those of the 1st to the 4th and the 10th to the 15th. On the 3d and 4th gales of varying force up to 11 swept considerable areas along the steamship routes between Japan and 175° W., and on the 11th forces of 10 to 11, with an accompaniment of violent rains qualls, were experienced by vessels between 40° and 45° N., 150° and 160° E.

On the 1st and 2d a severe storm of probable tropical origin was encountered by the British steamer *Anomia*, San Pedro to Yokohama, while near 35° N., 157° E. The gales began from south-southeast at about 9 p. m. of the 1st, pressure 29.21. At 2 a. m. of the 2d the pressure had dropped to its lowest reading, 28.65, and the wind had attained hurricane force from south-southwest. The *Anomia* had been compelled to heave to an hour earlier, and so remained until noon, when the wind had decreased to west-northwest, 5.

A report by the Rev. José Coronas, chief of the Meteorological division of the Philippine Weather Bureau, upon other September typhoons appears elsewhere in this issue of the REVIEW.

Two apparently moderate disturbances of cyclonic character appeared off the coast of Mexico. The first caused fresh to strong gales at sea near Acapulco on the 14th, and south of Manzanillo on the 16th. A west-southwest gale, force 9, was also reported on the 16th by the American steamer *Steel Navigator* while near 16° N., 109½° W., lowest observed pressure 29.64 inches.

A second series of gales swept the coast between Manzanillo and Mazatlan on the 24th and 25th. The depression causing them seems to have moved northward, since on the 26th gales occurred off the lower part of the Peninsula of California. The highest wind force noted was 10 from southeast, by the British steamer *Benalder*, near 21° N., 108¾° W. The lowest observed pressure was 29.56, read on board the British steamer *Toco* on the 26th, in 24° 40' N., 112° 43' W. Heavy rains fell during the course of these disturbances.

At Honolulu the total rainfall was 0.70 inch, or 0.58 less than the normal. The prevailing wind continued from the east. The average hourly wind velocity was 8.8 miles, and the maximum velocity was 26 miles from the east on the 24th. Temperatures were close to normal.

Fog decreased greatly in middle and northern latitudes since August, but was observed on scattered dates all along the upper steamship routes, being met with most frequently, on four to six days in the month, over small areas off the central California coast, to the southeast of Dutch Harbor and east of northern Japan.

TYPHOONS AND DEPRESSIONS

FIVE TYPHOONS OVER THE FAR EAST IN SEPTEMBER, 1926

By REV. JOSÉ CORONAS, S. J.

[Weather Bureau, Manila, P. I.]

Aside from two other distant Pacific depressions or typhoons whose tracks are not so definite, we had five well-developed typhoons over the Far East during the last month of September—two over Japan, two over the Babuyan Islands in the Philippines, and one over the China Sea and Indochina.

Two Japan typhoons.—The first of these seems to have developed on September 1 and 2 over the Pacific between the Loochoo and the Bonin Islands. At 6 a. m. of September 3 the center was shown by our weather maps to be east of Oshima in about 133° 15' longitude E., and 28° 40' latitude N. moving northward. On the 4th the typhoon traversed Japan, moving northeastward, the position of the center being at 6 a. m. of the 4th and 5th:

September 4, 6 a. m., 134° 30' longitude E., 34° 15' latitude N.

September 5, 6 a. m., 148° longitude E., 45° latitude N.

The second Japan typhoon was probably formed on the 11th to 12th about 250 miles east of northern Luzon. It moved Northwest on the 13th, but recurved to north and northeast on the 14th near to the east of Bashi Channel. On the 15th and 16th the typhoon traversed the Loocho Islands moving northeastward, and on the 17th it traversed Japan, keeping the same direction.

The position of the center at 6 a. m. of the 14th to 18th was as follows:

September 14, 6 a. m., 123° 20' longitude E., 21° 05' latitude N.

September 15, 6 a. m., 123° 30' longitude E., 23° 10' latitude N.

September 16, 6 a. m., 125° 50' longitude E., 25° latitude N.

September 17, 6 a. m., 132° 15' longitude E., 30° 40' latitude N.

September 18, 6 a. m., 139° longitude E., 38° latitude N.

Two Philippine typhoons over the Babuyan Islands.—

The first of these typhoons appeared in our weather maps on the 6th near 130° longitude E., between 13° and 14° latitude N. It moved west-northwest on the 6th, north-west on the 7th and north-northwest in the morning of the 8th; it inclined again to west-northwest at noon of the 8th and traversed the Babuyan Islands in the afternoon of the same day; finally, it inclined to north-northwest and north by west on the 9th, traversing the southern part of Formosa Channel on the 10th, and entering China near Amoy during the night of the 10th to 11th.

The steamers *Mayebashi Maru* and *Ethan Allen* were involved in this typhoon, the former near Balintang Channel, with a barometric minimum 746.49 millimeters (29.39 inches) at 4 p. m. of the 9th, and winds from south by west, force 7, and the latter near the southwestern coast of Formosa with the same barometric minimum at 2 a. m. of the 10th, and winds from south-east, force 6.

The position of the center at 6 a. m. of the 8th, 9th, and 10th was as follows:

September 8, 6 a. m., 123° 50' longitude E., 17° 30' latitude N.

September 9, 6 a. m., 119° 30' longitude E., 20° 30' latitude N.

September 10, 6 a. m., 118° 35' longitude E., 21° 45' latitude E.

The second Philippine typhoon was shown by our weather maps at 6 a. m. of the 25th, east of Luzon in about 128° longitude E., between 15° and 16° latitude N. It moved rapidly northwest by west and west-northwest on the 25th and 26th, the center traversing the Babuyan Islands in the morning of the 26th not far from the northern coast of Luzon and passing to the south of Hongkong in the morning of the 27th.¹ The

¹ According to press reports, the typhoon that entered south China on the 27th caused the loss of 2,000 lives and 130 fishing junks in the waters around the Portuguese colony of Macao.—W. E. H.