## THE TYPHOON OF THE BATANES ISLANDS, FORMOSA, AND INDO CHINA, AUGUST 25 TO SEPTEMBER 2, 1910.

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(Reprint from the Bulletin of the Weather Bureau for August, 1910.)

There are chiefly two reasons which make it appear advisable to discuss the typhoon of August 25 to September 2 more at length than the others. The first is furnished by the extraordinary and abnormal path followed by it; the second, by the fact that, as far as we know, nobody outside of Manila Observatory is in possession of sufficient data, I do not say for definitively indicating the place of its origin and the first part of its path, but even for suspecting them. The present instance manifests again in a striking manner the extreme usefulness which the establishment of telegraphic communication with Santo Domingo, Batanes Islands, would have for typhoon warnings.

Origin of the storm.—First of all we have to show that this typhoon did not come, already formed, from the Pacific Ocean, as is assumed by the observatories of Zikawei <sup>1</sup> and Tokyo, <sup>2</sup> but originated in the Balintang Channel, southwest of the Batanes group of islands. The observations made at our station of Santo Domingo, which we publish in the following table, are too clear on this point to admit of any doubt.

## METEOROLOGICAL OBSERVATIONS MADE AT SANTO DOMINGO, BATANES ISLANDS, AUGUST 25 TO 27, 1910.

Date and hour.	Pressure.	Differ- ence in 24 hours.	Wind,		Date and hour.	P	Differ-	Wind.	
			Direction.	Force.	Date and nour.	Pressure.	ence in 24 hours.	Direction.	Force.
August 25: 6 a. m 2 p. m August 26: 6 a. m 2 p. m	mm. 757 56. 17 55. 80 54. 58	mm. -1.75 -1.88 -1.20 -1.59	ENE ENE E ESE	0-12. 1 2 2	August 27: 6 a.·m	mm. 753. 78 53. 85 53 51. 77	mm. -2. 02 -2. 05 -3. 20 -3. 63	ESE ESE ESE to SE	0-12, 3 4 4 5

On the 27th the typhoon was already well developed, and this is the date on which the observatories of Manila and Hongkong gave their first warnings.

Manila.—August 27, 9 a. m.: Typhoon near or over Balintang Channel, direction unknown.

Hongkong.—August 27, noon: Typhoon near Balintang Channel, direction of motion unknown.

The exactness of these typhoon warnings is made evident by a look at the observations of Santo Domingo, though at the time both observatories based their announcements chiefly on the observations made at Aparri, on the north end of Luzon.

Zikawei Observatory, likewise, sent on the 27th this typhoon warning to the stations along the China coast:

August 27, 10.15 a. m.: Typhoon Balintang Channel, moving NW by W or WNW.

The typhoon in the Batanes Islands.—During August 28, 29, and 30 it was impossible to arrive at anything better than conjecture as to what had become of the typhoon of the 27th, especially as cable communication with southern Formosa was interrupted since the afternoon of the 29th.

We insert here the typhoon warnings which during these days were exchanged between Manila and Hongkong:

Manila.—August 28, 9.30 a. m.: Typhoon west of Bashi Channel, moving WNW or NW. August 29, 9.45 a. m.: Typhoon near or over Bashi Channel, developing.

<sup>&</sup>lt;sup>1</sup> "The Storms of August, 1910," page 9.

<sup>&</sup>lt;sup>2</sup> Journal of the Meteorological Society, August, 1910.