

## THE SWATOW TYPHOON OF AUGUST, 1922.

The Weather Bureau has received the following letter and report concerning the disastrous typhoon at Swatow in August of this year from Capt. G. St. M. Stocker, of the Swatow Pilotage Association. Captain Stocker has been acting as cooperative observer, and the location of his station near the mouth of the Han River enabled him to furnish an invaluable series of observations, but only made under the most trying conditions. Additional remarks by Captain Stocker will be found elsewhere.<sup>1</sup>

AUGUST 29, 1922.

To the CHIEF OF THE UNITED STATES WEATHER BUREAU,  
Department of Agriculture, Washington, D. C.

SIR: Please receive herewith a copy of a barograph record taken from my instrument at Double Island, at the entrance to the port of Swatow, in the first week of this month.

Such observations as I was enabled to take prior to and during the storm have been compiled in the form of notes, and I send you these also in the hope that they may prove of some service to you.

You will appreciate the fact that in such a heavy storm, attended as this was by enormous destruction of life and property, it is exceedingly difficult for an observer (whose house is crumbling away piecemeal all around him) to take accurate observations of the true direction of the wind, but I was able to record the barometer regularly and accurately, so these readings may be accepted as fairly correct.

People in Swatow, only 4 miles west of me, agree that they experienced a period of calm, whereas I and others here only experienced a lull, commencing at about 1:45 a. m., the time of the minimum reading of the barometer, and lasting for some three-quarters of an hour, during which time the wind veered from north to south by way of east with varying force between 3 and 8, when, settling from south, it blew by 3:00 a. m. with force 12.

When all the data necessary have been received by you I would esteem it a favor if you would let me have a tracing of the track of this storm, showing various directions and forces of winds at various points simultaneously, with corresponding barometer readings.

I am, Sir, very truly yours,

G. ST. M. STOCKER.

## REPORT ON THE SWATOW TYPHOON.

A storm, accompanied by a tidal wave, passed over Swatow and neighborhood on the 2d of August, 1922, devastating a large part of the Han River delta and taking a heavy toll of life and property.

Apart from such telegraphic reports of the existence of a storm to the eastward of the Balintang Channel as came to hand, it was evident to observers on Double Island, at the entrance to the port of Swatow, as early as the evening of July 29 that a depression was moving toward the coast of China, the barometer being rather low and there being a pronounced swell on the bar.

By the morning of August 2 this swell had increased perceptibly, though there was but little wind. The sky was overcast and gloomy and the atmosphere oppressive, light showers falling occasionally.

Calms and variable light airs were experienced till noon, and then the wind came away from the northeast, force 4-6, with heavy showers. The swell on the bar became very heavy and the sea outside turbulent.

Just after sunset the whole sky and atmosphere assumed a dark yellow hue for about half an hour, which was commented on by many.

The barometer readings noted in this report are subject to a correction of +0.15 inch, the last comparison having been made on March 4, 5, 6, 1922. The time on the barograph record is one hour slower than local standard time, i. e., 120th meridian time. The readings recorded here are those of the aneroid, not the barograph.

By 8:00 p. m. on the evening of the 2d the aneroid read 29.20 inches, wind NE., force 6-8, sky Nimbus, 10.

After 8 o'clock the wind slowly backed to north, increasing in force to 10, and so continued till about 1:45 a. m. on August 3.

Shortly before 1 o'clock on the morning of August 3, it was noticed that the water was much higher than normal, and by 2 o'clock it had risen to a height of about 8 feet above normal high water.

From 11:00 p. m. to 1:00 a. m. the barometer dropped each half hour as follows: 0.13 inch, 0.15 inch, 0.35 inch, 0.45 inch. After that the drop was slower, being as follows: 0.15 inch, 0.10 inch, and by 1:45 a. m. it had reached its minimum of 27.55 inches.

After 1:45 a. m. the barometer rose rapidly, the wind veering from north to NE., force 3-6, and at 2:00 a. m. the barometer read 27.85 inches, the wind continuing to veer to the southward and increasing. At 2:30 a. m. the barometer read 28.10 inches, wind SE., force 5-8, and at 3:00 a. m. it read 28.60 inches, wind south, force 12.

The wind continued from the south with hurricane force till about 4:30 a. m., the barometer rising rapidly, until by 5:00 a. m. it had reached 29.40 inches, and the wind had dropped since 4:30 to force 5-7.

Both foreign and native shipping suffered heavily. Houses that escaped being blown down were washed away by the waters which spread over the whole country side, and the loss of life was enormous.

Owing to the general inundation, as well as to the extremely heavy rainfall which accompanied the storm, it was several days before the country became drained off, and meanwhile the tides appeared to lose their rise and fall, the surface current flowing to seaward nearly all the time, and the general level remaining above normal.

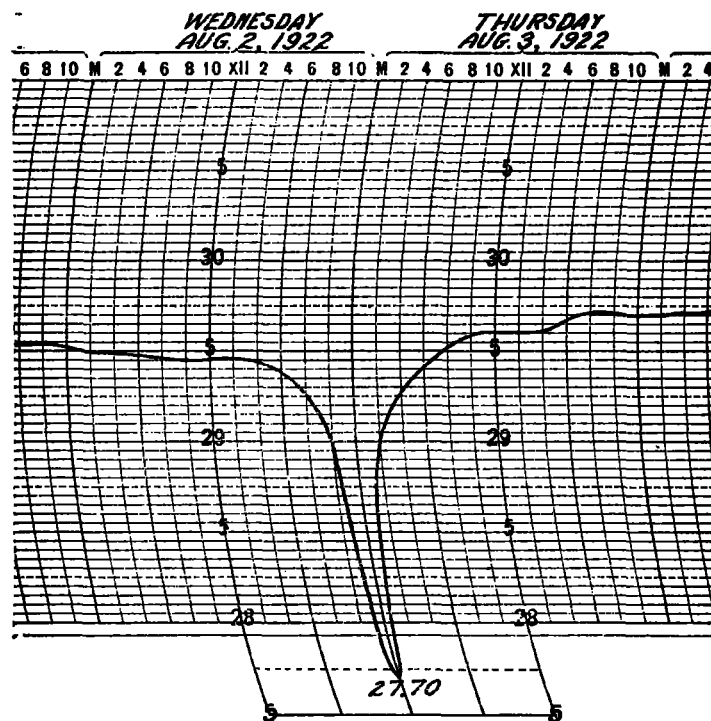


Fig. 1. Copy of barograph trace, extended, during passage of Swatow typhoon. Office Swatow Pilotage Association, Double Island, about 4 miles below city.

## TEN DEPRESSIONS OR TYPHOONS IN THE FAR EAST DURING THE MONTH OF AUGUST, 1922.

By REV. JOSÉ CORONAS, S. J.

(Weather Bureau, Manila, P. I.)

August has been a very stormy month for the Far East. There have been at least five well-developed typhoons, while lack of observations makes it impossible for the present to decide whether the other five atmospheric disturbances shown in our Weather Maps were also, at least for some time, real typical typhoons, or only depressions of less importance.

*The Swatow typhoon.*—This will go down to history as one of the worst, if not the worst typhoon, that has ever visited the Far East. Our weather map of 2 p. m., July 29, showed clearly this typhoon as situated over 300 miles to the east of central Luzon, although observations from Guam and Yap seem to point out as the probable and approximate origin of the typhoon 138° longitude E. and 14° latitude N. on July 27.

The position of the center at 6 a. m. of July 30 to August 2 was as follows:

July 30, 6 a. m., 128° 25' longitude E. 16° 00' latitude N.  
July 31, 6 a. m., 125° 40' longitude E. 16° 50' latitude N.  
August 1, 6 a. m., 122° 45' longitude E. 18° 25' latitude N.  
August 2, 6 a. m., 119° 30' longitude E. 21° 05' latitude N.

<sup>1</sup> See article, North Pacific Ocean.