

GOVERNMENT NOTIFICATION.—No. 534.

The following report from the Director of the Observatory, is published for general information.

By Command,

FREDERICK STEWART,
Colonial Secretary.

Colonial Secretary's Office, Hongkong, 17th December, 1887.

REPORT ON INFORMATION ISSUED IN 1886 CONCERNING TYPHOONS.

The remarks concerning Typhoons, Meteorological Signals, and Storm-warnings, published in the *China Coast Meteorological Register* issued daily from here in 1886, are reprinted below. The basis on which typhoons were forecast is added in small print and likewise the position at 9 a. of the centre of the typhoon, as finally determined from a discussion of all available information:—

1886, June 10th.—‘The barometer is still falling. Gradients are increasing for S winds. The temperature and the humidity are high and overcast weather prevails. There appears to be a typhoon in the Pacific probably moving NWestward.’

Basis: General and NW breezes in Luzon.—Typhoon in about $19\frac{1}{2}^{\circ}$ N, 124° E.

1886, June 11th.—‘The barometer is rising in the South and falling in the North. The temperature and humidity are rather high, and overcast weather prevails with thunderstorms along the coast. The typhoon appears to be E of Formosa moving northwards.’

Red Drum hoisted at 10.30 a.

Typhoon in $19\frac{1}{2}^{\circ}$ N, 120° E.

1886, June 12.—‘The barometer is rising. The typhoon appears to have moved northwards at a quick rate and to have crossed southern Japan and entered Siberia. Gradients are moderate for NE winds over southern China and moderate for SW winds over northern China. The temperature is moderate, the humidity low and the weather overcast.’

Red Drum removed at 10.15 a.

Typhoon appears to have crossed the China Sea.—The storm in the Sea of Japan was caused by a different depression.

1886, June 15th.—‘The barometer has risen in Wladivostock and has fallen elsewhere. There appears to be a typhoon to the north of Luzon. The temperature is moderate. The humidity is low in the south and high in the north. Cloudy and rainy weather prevails.’

Basis: Fresh NE breeze near Shanghai. Fresh W breezes in the south. Bad weather in Luzon.—Typhoon in 27° N, 122° E.

1886, June 16th.—‘The typhoon appears to have passed E of Formosa moving northwards. A fresh gale was reported from Manila last night and very threatening weather is reported from Bolinao this morning, probably owing to another typhoon crossing Luzon. The barometer has risen. The temperature is high and the humidity very low except in Shanghai. The weather is fine along the southern coast and overcast in the East.’

Typhoon in 34° N, 120° E.

1886, August 13th.—‘The barometer continues to fall particularly in the north. Gradients are rather steep for SW winds in the south and for NE winds in the north. The temperature is high, the humidity moderate and cloudy weather prevails. There were furious gusts of wind accompanied by heavy rain all night at Bolinao, and this morning a strong breeze and a falling barometer are reported from Shanghai.’

1886, August 14th.—‘The barometer has fallen in the north. Gradients are steep for SW winds in the south and for NE winds in the north. The temperature is high, the humidity low and the weather cloudy. There appears to be a typhoon NE of Formosa moving Northwards.’

Basis: Observations telegraphed from coast ports.—Typhoon in $28\frac{1}{2}^{\circ}$ N, 120° E.

1886, August 16th.—‘The barometer has risen. Gradients are rather steep for SW winds. The typhoon appears to have entered northern China. The temperature and humidity are moderate and overcast and wet weather prevails.’

Typhoon in 32° N, $116\frac{1}{2}^{\circ}$ E.

1886, August 17th.—‘The barometer has risen except in Wladivostock but gradients are steep for SW winds. The typhoon is proceeding northwards in northern China. The temperature is high in the south and low in the north. The humidity is low in the south and high in the north and overcast weather prevails.’

Typhoon in 38° N, 115° E.—Telegrams forwarded to treaty ports: ‘Stormy weather may be expected in the Yellow Sea.’

1886, August 18th.—‘The barometer has fallen in the south and risen in the north. Gradients are moderate for SW winds. The typhoon appears to be still progressing in northern China. The temperature and humidity are rather high and the weather overcast.’

1886, August 21st.—‘The barometer has risen in Luzon and along the south coast of China and gradients are rather steep for SW winds in the China Sea. A typhoon, which probably had its origin some days ago far to the E of Luzon, is proceeding NEastward to the S of Japan. The temperature and humidity are rather moderate and the weather cloudy.’

Basis: Observations in Nagasaki.—Typhoon in $33\frac{1}{2}^{\circ}$ N, $130\frac{1}{2}^{\circ}$ E.

1886, September 3rd.—‘The barometer has risen in the West and fallen in the East. Gradients for W winds are very gentle. There appears to be a typhoon in the Pacific E of Formosa probably moving northwards. The temperature is high, the humidity comparatively low and cloudy weather prevails.’

Basis: General.—Typhoon in 19° N, 133° E.

1886, September 10th.—‘The barometer is falling along the coast of China and rising in Tonquin and in Siberia. Gradients for W winds are slight. The temperature is moderate, the humidity low, and fine weather prevails. There is a typhoon between Northern Formosa and Southern Japan probably moving northwards.’

Basis: Observations in coast ports and in Nagasaki.—Typhoon in 24° N, 128° E.

1886, September 11th.—‘The barometer is falling in Luzon and along the southern coast of China. Gradients are slight for SW winds over the China Sea, and for N winds over China. The typhoon appears to have entered the Sea of Japan.’

Basis: Observations in Nagasaki and Wladivostock.—Typhoon in 38° N, 132° E.

1886, September 16th.—‘The barometer has fallen about a tenth of an inch. There is a typhoon in the China Sea West of Bolinao. The temperature is high, the humidity low, and the weather fine along the southern coast of China. The temperature is low, the humidity high, and the weather overcast and wet in Luzon.’

South Cone hoisted at 1.14 p.

Basis: General and SE breeze in Luzon, clouds coming from S.—Typhoon in 18° N, 118° E.

1886, September 17th.—‘The barometer is stationary in the south, and has fallen in the north. The typhoon W of Bolinao, appears to be small, and to be moving NWestward, but does not threaten the Colony, as already stated in last night’s telegram. It is possible that there is another typhoon approaching southern Japan. The temperature is high, the humidity has increased, and the weather is cloudy.’

South Cone removed at 4.20 p.

Typhoon in 20° N, 119° E. The other typhoon (surmised from observations in Nagasaki) in 34° N, 132° E.

1886, September 18th.—‘The barometer is rising in Luzon and in the North of China, but is falling along the SE coast. The temperature is high, the humidity moderate, and the weather fine, except in Luzon. The small typhoon in the China Sea, which was indicated here on the 15th, and announced on the 16th, appears to be approaching the Formosa Channel, probably attracted towards the storm in the Sea of Japan, which is now felt in Wladivostock.’

One typhoon in $21\frac{1}{2}^{\circ}$ N, 119° E, another in 40° N, 139° E.

Red drum hoisted at 10.35 p.

1886, September 20th.—

Red drum removed at 10.30 a.

1886, October 9th.—‘The barometer continues to fall, particularly in Luzon, but has risen in the North. Gradients for NE winds have increased. A typhoon has approached Luzon. The temperature is rather high, the humidity moderate, and the weather fine along the coast.’

Basis: General.—Typhoon in 19° N, 122° E.

1886, October 11th.—‘The barometer is rising in Luzon, and has fallen along the coast. The typhoon appears to have moved northwards. The temperature and humidity are high, but fine weather prevails.’

This typhoon crossed the China Sea.

1886, October 16th.—‘The barometer has fallen, and gradients continue rather steep for NE winds. It appears that a small typhoon coming from the Pacific has crossed near Iloilo, and entered the China Sea near Palawan.’

Basis: General.—Typhoon in $12\frac{1}{2}^{\circ}$ N, 117° E.

1886, November 16th.—‘The fall in the barometer over Luzon has increased. It has now fallen also along the coast but risen in Japan. This is evidently due to a typhoon approaching southern Luzon from the East. A fresh NNE gale is reported from Bolinao. The temperature and humidity are rather low and the weather cloudy.’

Basis: Observations in Luzon. Typhoon in 14° N, 128° E.

South Cone hoisted at 1.50 p.

1886, November 17th.—‘The barometer is falling except in Japan, and gradients are steep for N winds. The temperature is rather low and the humidity very low. The weather is fine along the coast. A whole gale from N was reported last night from Bolinao. It was blowing very hard all night from NE backing towards W owing to the approach of the typhoon announced yesterday. Gusts with rain occurred just before daybreak. The sea is heavy and the air is misty.’

1886, November 18th.—‘The barometer has risen in the south and fallen in the north. The typhoon appears to have approached Japan. The temperature and humidity are low and the weather fine.’

Typhoon in 22° N, 126° E.

South Cone removed at 10.20 a.

For further explanations the pamphlet on *The Law of Storms in the Eastern Seas* may be consulted.

W. DOBERCK,
Director.

Hongkong Observatory, 12th December, 1887.