

## Effects of Typhoon On The Ionosphere

YI-MOU LIU<sup>1</sup>, JING-SONG WANG<sup>1</sup>, and YU-CHENG SUO<sup>2</sup>

<sup>1</sup>School of Earth and Space Science, Peking University, Beijing, P. R. China <sup>2</sup>China Research Institute of Radio Wave Propagation, Beijing, P. R. China

During the period of typhoon, especially when typhoon is approaching the mainland, violent air-ocean or air-land interactions will greatly strengthen the turbulence in the lower atmosphere and can change the atmospheric structure even up to the altitude of the ionosphere, and consequently influence the ionosphere.

In this paper, we analyzed the ionospheric responses over the southern sea of China before and after typhoons' landing, using the data obtained at Guangzhou and Haikou stations. Several typical typhoon cases were selected excluding the influence of geomagnetic storms. Results show that the critical frequency of F<sub>2</sub> layer begins to rise with an approaching typhoon, but not reaches its maximum when typhoon passes closest to the station, which is different from the result of Bauer(1958). After typhoons' landing,  $f_0F_2$  begins to decrease and reaches its minimum in one or two days later.

The moving of the turbopause due to the typhoon activities is argued to be the reason of the ionospheric responses to typhoons.

Keywords: typhoon; ionosphere.

## References

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