

Interactive comment on “Characteristics of ionospheric irregularities near the northern equatorial anomaly crest” by Jinghua Li et al.

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Received and published: 28 October 2019

Thank you for your attention and useful comments. The aim of the paper is to present characteristics of ionospheric irregularities near the EIA crest from GPS observations during 2003, 2008, and 2014. In this manuscript major modifications are as following: (1) Another GPS receiver located at (31.10°N, 121.20°E) was also used to study the irregularity. According to the latitudes of the IPPs, five latitudes belt are divided. The characteristics of the irregularity in the five latitude belts are studied and the latitude dependence is analyzed. (2) The figures from the two stations are plotted. The descriptions to the figures and the results from them are revised according to the new figures. (3) Discussion and conclusion are modified according to the results and the figures. (4) In addition, we improve the English writing. After the modification, the major contri-

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butions of this paper are summarized as: (1) Local occurrence rate (LOR) is proposed to describe the spatiotemporal range of the irregularities. (2) The monthly occurrence rate (MOR) is generally large in May/June than that in the equinox months. (3) LOR is the larger in the equinox months than in June for the lower latitudes. But for the higher latitudes, LOR is larger in June. (4) MOR and LOR in March and September/October decrease with the latitudes. But in June, they are large in the higher latitudes and small in the lower latitudes. (5) The characteristics of the irregularities in $20\sim 23^{\circ}\text{N}$ and $23\sim 26^{\circ}\text{N}$ are similar to the EPBs. But in the higher latitudes, they are different from the EPBs.

The responses to your comments are attached.

Please also note the supplement to this comment:

<https://www.ann-geophys-discuss.net/angeo-2019-64/angeo-2019-64-AC3-supplement.pdf>

Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2019-64>, 2019.

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