

Low ionosphere modeling: new data and models

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Extreme radiation can cause additional ionization and alter the structure of the Earth's atmosphere. This kind of solar radiation and activity create sudden ionospheric disturbances (SIDs), induce various natural disasters, affect electronic equipment on the ground along with signals from space. Aim of this research is on the study of SIDs using very low frequency (VLF) radio signals in order to predict the impact of intense radiation on Earth and analyze ionosphere plasmas and its parameters (Srećković et al. 2022a). All data are recorded by VLF BEL stations and the model computation is used to obtain the daytime atmosphere parameters induced by this extreme radiation (Srećković et al. 2022b). We present new data, empirical model of the D-region plasma density and simple approximative formula for electron density.

References

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