Lower ionosphere under high-energy events: observations and model parameters

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Analysis of lower ionospheric response and electron density altitude profile variations in lower ionosphere induced by high-energy events during daytime and during nighttime was carried out. Sudden events induced changes in ionosphere and consequently electron density height profile. All data are recorded by BEL radio stations system and the model computation is used to obtain the atmospheric parameters induced by these perturbations. According to perturbed conditions, variation of estimated parameters, sharpness and reflection height differ for analyzed cases. The data and results are useful for Earth observation, telecommunication and other applications in modern society.

References

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