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# Seasonal Variation of Ionospheric Parameters at station Jicamarca in Solar Activity Minimum

M.V. Klimenko (1), V.V. Klimenko (2), V.V. Bryukhanov (1)

(1) Kaliningrad State Technical University, Russia, (2) WD IZMIRAN, Kaliningrad, Russia

(maksim.klimenko@mail.ru / Phone: 7-4012-215606)

In the given work the numerical calculation results on Global Self-consistent Model of Thermosphere, Ionosphere and Protonosphere (GSM TIP) the behavior of ionospheric parameters at station Jicamarca with take into account only a dynamo-field generated by thermospheric winds are submitted. Calculations were executed by completely self-consistent manner for the quiet conditions of equinox and solstice in a minimum of solar activity. It is shown, that all considered parameters of ionosphere in the spring and autumn practically do not differ from each other. The amplitude of zonal component of electric field in winter is twice as many, than in the summer. In the winter the critical frequency of ionospheric F2-layer is lower, and the height of F-layer maximum is higher, than in other seasons. Due to that the amplitude of zonal component of electric field achieves the maximal value in the winter at station Jicamarca due to stratifications of equatorial F2-layer of ionosphere the F3-layer in the period from 10 UT up to 11 UT is formed. In all other seasons in our calculations the F3-layer is not formed. At height $\sim$ 1500 km in the winter the G-layer is formed by the meridional component of thermospheric wind in the period from 12 UT up to 05 UT. In other seasons a well defined G-layer is not present.