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# Studying Parameters of Waves Generated by Dawn and Dusk Solar Terminators

Beibit Zhumabaiev, Artur Yakovets, Galina Gordienko, and Yuriy Litvinov
Institute of Ionosphere, National Center for Space Research and Technology, Almaty, Kazakhstan (beibit.zhu@mail.ru)

On the basis of the vertical sounding of the ionosphere over Almaty a comparison of parameters of waves excited by the passage of the dawn and dusk solar terminators is carried out. Ionogram processing included a calculation of vertical distributions of the electron concentration (N(h) profiles) by the POLAN method and obtaining the time variation of the F2 layer electron concentration at fixed heights (Nh(t)) and the concentration in the layer maximum (NmF2). We analyzed data obtained in March 2010, during which 18 sessions of measurements were carried out. Each of sessions included the evening transition between day and night time, night time and morning time of transition. Observations were carried out in a period of low solar and magnetic activities. Wave periods of the dawn and dusk terminators are distributed in the same intervals of 40 - 85 min. If for the dawn terminator, beginning the wave generation corresponded to the height of the sun above the horizon distributed in a narrow range of 11 – 15 degrees, then for the dusk terminator its heights exhibit considerable variation in the band of from 0 to – 14 degrees below the horizon. Their relative maximum amplitudes are also significantly different. The maximum of the wave amplitude of the dusk terminator being in the range 10 - 40% is substantially higher than the amplitude of the dawn terminator waves (4 - 16%). This proves that the dawn terminator more effectively generates waves in the neutral atmosphere than the dusk terminator. As the boundary of non-uniform heating of the atmosphere, the dawn terminator generates a large horizontal temperature and pressure gradients than the dusk terminator. It is known that a sharp boundary more effectively generates waves. Therefore dawn terminator functions more efficiently when excited atmosphere waves. Our data showed a significant excess of the maximum amplitudes of dawn terminator waves over the dusk terminator waves, confirm these conclusions. At the same time the height corresponding to the maximum amplitudes are at the same intervals as for dawn and dusk terminators (190 - 230 km).