Lev M. Erukhimov, Associate Editor of the Journal "Izvestiya Vysshikh Uchebnykh Zavedenii, Radiofizika" and distinguished scientist, passed away unexpectedly at age 60 in the prime of his creative life and activities.

Professor, Head of the Department of Solar and Terrestrial Physics at the Radiophysical Research Institute, author of three monographs and over 300 scientific works, and a member of the editorial boards of a number of international scientific journals, Lev Erukhimov was among the outstanding representatives of the Nizhny Novgorod Radiophysical school.

All the activities of Lev Erukhimov were an example of life in science. His shining talents along with great erudition endeared him to his many international colleagues and scientists.

The demise of Lev M. Erukhimov is an irreplaceable loss to all of us.
ANALYSIS OF APPEARANCE OF MOVING IONOSPHERIC DISTURBANCES OF THE "SICKLE" TYPE AT MIDDLE LATITUDES

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We present the results of analysis of the data of vertical ionospheric sounding at the Zimenki test site (Nizhny Novgorod). The January and July ionograms are used to plot the dependences of the number of "sickle" type disturbances on the time of the day for the period from 1996 to 1992. A comparison with the scattering in an ionospheric F-layer for the same period is performed. A trend in the time series of the phenomenon observed is recorded.

The concept of the wave nature of the middle-latitude inhomogeneities of electron density has been substantiated both theoretically and experimentally [1]. The properties of wave disturbances in the middle-latitude ionosphere are systematized.

Typical manifestations of wave disturbances in the ionosphere are "moving" ionospheric disturbances (MID). This name is used to denote diverse forms of electron density inhomogeneities, which manifest themselves on vertical sounding ionograms, records of reflection altitudes, and some methods for observing anomalous phenomena specially used to study MIDs.

Many papers, theses, and monographs [2-4] deal with the behavior of MIDs, their morphology, and relation to other geophysical phenomena.

Methods used to study the MIDs are diverse. The most widely used method for MID study involves recording of the altitude-frequency characteristic at ionospheric stations. The disturbance onset is accompanied by the loop-shaped distortion of the ionogram in the region of critical frequencies of the F-region followed by a bend, which is displaced to the LF region. These are the so-called sickle-like disturbances. In this paper we analyze appearance of such disturbances.

The special feature of this study is that we have data on the appearance of sickle-like MIDs in the period of from 1966 to 1992 obtained only at the Zimenki test site (near Nizhny Novgorod, $\varphi = 56^\circ$ and $\lambda = 44^\circ$) with invariable parameters of the equipment. Therefore, the proposed statistical data are reliable and comprehensive.

Analysis of MID appearance allows us to plot the diurnal variation for January (Fig. 1a) and July (Fig. 1b) for the above years.

The maximum of the cases observed in winter and summer (see Fig. 2) corresponds to the near-midday time (12 p.m. and 4 p.m., respectively).

The sickle-like MIDs were observed in winter from 6 a.m. to 7 p.m. and in summer from 3 a.m. to 9 p.m., which seems to be related to ionospheric illumination at the F-layer altitudes. Variation of the plotted curve is in sufficiently good agreement with variation of critical frequencies for the corresponding months.

In a number of papers (see, for example, [5]) the appearance of sickle-like MIDs was also recorded in the daytime.

The F-spread behavior was analyzed simultaneously with the study of appearance of the sickle-like MIDs for the same time intervals. The results of these studies are shown in detail in [6].