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Study of electromagnetic parameters of space weather in the ionosphere.

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The magnetic wave complexes obtained in the project "Chibis-M" and "Obstanovka (1 stage)" on the electromagnetic parameters of space weather in the ionosphere obtained in quiet and disturbed geomagnetic conditions with high spectral resolution and large dynamic range allowed us to identify specific characteristics of a number of ionosphere - magnetosphere radiation, including characterizing space weather and global lightning activity. Developed a database that characterizes the global dynamics of the ionospheric plasma in the quiet and disturbed geophysical conditions. On the basis of typical data is made, including the conclusion that the increased electromagnetic wave activity at sub-auroral latitudes in the range of 10-25 kHz is a good indicator of increasing geomagnetic activity observation and the space weather parameter, measured in the ionosphere on space vehicles.