The electromagnetic indignations generated by movement of a plasma clot in an ionosphere

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For 3D the equations of magnetic gasdynamics the special computing algorithm is developed, allowing to determine parameters of the plasma cloud forming as a result of explosion in the top atmosphere (100–1000 km) and the parameters of MHD disturbance at it. It is shown, that during several seconds MHD the sound wave go out plasma on the distances comparable to radius of the Earth. Further, during tens seconds plasma flow as an ascending jet across a geomagnetic field is formed. Such flow generates currents systems in an ionosphere, being a source longtime electromagnetic disturbance.

Amplitudes of fields and their spatial structure are appreciated. Comparison with amplitudes of fluctuations is carried out at powerful geomagnetic storm.