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The Global Atmospheric Electricity Monitoring Program

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Enigmas of stars and lightning are two ancient motives of religion and science. Understanding both of them is a foundation for the better understanding of the world.

Atmospheric electricity provides two parameters that describe the earth's environment as a whole. These are the ionospheric potential and the global resistance of the atmosphere. Global resistance is an indicator of air pollution integrated over all the world and the ratio of ionospheric potential to global resistance is an indicator of world thunderstorm activity. In the near future human activity can influence both of them. The influence on thunderstorm activity was proven by observations in Sweden after the Chernobyl accident.

Thus, atmospheric electricity can provide two inherent global parameters for the monitoring of Global Change of the earth's environment. However, before starting routine monitoring, a large scale investigation of the global electric circuit is needed to select proper monitoring techniques. Realization of required investigations is the main pragmatic goal of GAEM. The cognitive goal of GAEM is the better understanding of global generation and propagation of atmospheric electricity which can be used on various pragmatic purposes as better forecasting of weather, radio wave propagation, and other.

Atmospheric electricity is the key of coupling the ionosphere to the troposphere. This means that possible extraterrestrial influences on weather could be explained through atmospheric electricity. The second goal of GAEM is to provide this research with reliable data.