

INVESTIGATION OF MAGNETIC FIELD OF THE EARTH AND RUSSIAN - UKRAINIAN SEGMENT OF INTERMAGNET

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Now three magnetic observatories of Ukraine: Argentine Islands (2004), Lviv (2005), and Kiev (2011) are members of INTERMAGNET. The data of these observations are sent to international centers at Ottawa, Edinburgh and Paris. The Ukrainian observatories due to the close collaboration between Institute of Geophysics, National Academy of Sciences of Ukraine, and organizations in Poland, France, Belgium, England and Russian have now the modern equipments for continuous registrations of the magnetic fields, processing and transmission of the data to the International community.

The Institute of Geophysics, NASU, takes part in joint projects RFBR-NASU since 2010. Creation of the Russian-Ukrainian geomagnetic data center on the base of GC RAS was the result of these projects. Owing to these projects equipment's of the observatories are renewed and computer programs are up to date. As a result the quality of observations has been improved. In 2011 geomagnetic observatory Kiev was recognized as a full participating member of INTERMAGNET. The modernization of the Ukrainian magnetic observatory Odessa will allow it to become a member of INTERMAGNET. Geomagnetic measurements were carried out at the East Ukraine for choosing a place for new observatory or for observation point.

We will have by means of the new data of magnetic Ukraine observatories and observatories the world net:

1. Changes of the magnetic field at magnetic observatories of Ukraine for all period of their activity were investigated. The space-time structure of the field for past 50 years was appreciated.
2. Secular variations of geomagnetic field are investigated. The goal of these investigations is separation of variations from internal and external sources. Separated secular variations from internal sources will be used for improvement of geomagnetic field models and also for practical problems.
3. Peculiarities of development of different types of geomagnetic variations and changes of their sources on solar activity are studied.