**Extremal values of geomagnetical field change rate according to Baygazan magnetic station data in Altai**

A.Yu Gvozdarev 1, O.V. Kazantseva 2 , E.O. Uchaikin 2,.  
  
1. Institute of Cosmophysical Research and Radio Wave Propagation, FEB RAS. Paratunka. Kamchatka region, Russia

2. Gorno-Altaisk State University, Gorno-Altaisk, Russia

The data of the Baigazan magnetic station in Altai for 2011-2014 on the rate of change of the magnetic field are analyzed. An algorithm for calculating dB/dt with a signal-to-noise ratio of 18 dB has been developed. It is shown that the distribution of the rate of change of the magnetic field is lognormal with a heavy "tail". There are about 10 cases per year when the average minute values of dB/dt exceed 30 NT/min. They are usually associated with SSC, Pc5/Pi3 wave activity and sometimes Pc3/Pi2 wave activity. Estimates of geomagnetic-induced currents in the power system of the Altai Republic for these events have been carried out.

This work was supported by Russian science foundation grant № 23-27-10055 (https://rscf.ru/project/23-27-10055/) and Department of Science and Education of Altai Republic Government.