

## GEOMAGNETIC MONITORING IN ARCTIC AND ANTARCTIC REGIONS

*A. Janzhura, O. Troshichev*

Arctic and Antarctic Research Institute, St.Petersburg, 199397, Russia

[alex\\_j@aari.ru](mailto:alex_j@aari.ru)

The Roshydromet network of geophysical observations includes 11 stations in Arctic and 5 stations in Antarctic. Stations are equipped with magnetometers, riometers and ionosounders. The magnetic data from 5 stations located in the auroral zone (Amderma, Dikson, Cape Chelyuskin, Tiksi, Pebek) are used for calculation of the planetary AE/AL/AU indices. Data from Antarctic station Vostok serve as a basis for derivation of the polar cap magnetic activity index (PC). In last three years the Roshydromet network in Arctica was subjected to essential reconstruction to ensure on-line transmission of the current geophysical data from remote stations to AARI. Renovation includes construction of new buildings at polar stations, deployment of the satellite communication modules and arrangement of new acquisition system at stations.

A real-time information on geophysical processes in polar regions is very important for goals of Space Weather monitoring. The modern communication systems and computer technology makes it possible to collect and process the data from remote sites without significant delays. A new acquisition equipment based on microprocessor modules and reliable in hush climatic conditions has been deployed at the Arctic geophysical network during last few years. As a result, now we have a contemporary system for on-line collecting and transmitting the geophysical data from Arctic and Antarctic stations to AARI. At present the Polar Geophysical Center is arranged at AARI to ensure the near-real time processing and analysis of geophysical information.