Interannual variability of sea ice closeness of the Arctic and Antarctic

Y. Artamonov, A. Bukatov, and E. Skripaleva

Marine Hydrophysical Institute NASU,Sevastopol, Ukraine (artam-ant@yandex.ru)

On the base of data set British Atmospheric Data Centre (BADC) HadISST ICE for each month for the period 1969 through 2002 interannual variability (RMS – root-mean-square) of sea ice anomalies areas different closeness in the Arctic and Antarctic is investigated. It is shown, that every basin has its own interannual variability features of ice conditions. They are due by differ-ences in zones orography, meteorological conditions and water circulation. The Arctic Region has RMS minimum from February till June, in period of the largest ice quantity of 100% closeness. Also in November, when ice 100% closeness strongly growth. RMS peak values for ice 90 – 100% closeness are observed from July till September, when it's minimum solid-ice quantity (100%) and maximum open pack-ice in the Arctic Region. In January marked the second maximum RMS, when ice 100% closeness practically formed.

In Antarctic Region the minimal interannual variability of ice closeness is marked in January – March, during a minimum ice quantity around of continent. RMS for ice 100% closeness has maximum in June, in period of high rising. In August – September ice growth become slower, at the same time interannual variability level change slightly. In contrast to solid-ice, area of ice 80-90% closeness increase slowly up to November. RMS maximum values are observed in September. In October – November, at the time of ice thawing, RMS values decrease for ice 90 – 100% closeness. For ice less than 80% closeness maximum of interannual variability is marked in December. At this moment, as a result of ice thawing the areas occupied with floes and icebergs increase.