

## **MAIN TECTONIC STRUCTURES OF THE ARCTIC OCEAN IMPRINTED IN COMPUTER DERIVED POTENTIAL FIELD AND BATHYMETRY MAPS**

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We present a set of newly compiled digital shaded relief color gravity, magnetic anomaly and bathymetry maps covering the whole area of the Arctic ocean. These maps based on reprocessed previously unavailable data collected by Russian agencies has been used to distinguish the main tectonic structures in the region. Several major units are shown on the tectonic scheme: oceanic crust (Cenozoic and older age), Precambrian continental crust (including the microcontinents), and transitional crust of various consolidation stages (Caledonian, Hercynian, Early- and Late- Kimmerian). Two types of active continental margins were recognized: with occurrences of granites (mostly subducted) and without granites (mostly obducted). The paleo- arcs are presented in the Central Barents, Northern Kara and Southern Laptev Seas. The rift zones are exposed in the western part of Laptev Sea northward of Svalbard, and in the Canada basin as well as major strike-slip faults in several areas. Present Amerasian basin is interpreted as Northern part of Pacific ocean hewed in the Cenozoic during the period of the orogeny encroached the entire area of present North-East of Russia and North-West of North America.