

## **TECTONICS OF NORTHEASTERN ASIA CONTINENTAL MARGIN IN THE ARCTIC**

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Tectonics of Northeastern Asia continental margin in the Arctic is examined by seismic reflection and remote sensing methods. Its basement was formed in mid Jurassic to Barremian by collision of Siberian craton with several continental microplates: Kara, Omolon and North Alaska-Chukotka. The deformed Siberian passive margin extends under the whole Laptev Shelf. The rest of basement is represented by North Alaska-Chukotka microplate. It was rotated counterclockwise away of North American plate and collided with Siberian and Omolon margins along South-Anyui suture resulting in deformation of the southwestern passive margin of the microcontinent while its internal parts remained stable and constitute the Hyperborean epi-Ellesmerian massif in the northern part of the region. The Arctic and Chukchi platforms, De Long Block, Arlis and Chukchi Plateaus may represent its different parts. The northern front of Brookian-Chukotkan deformation is manifested along northern side of Brooks Range and studied offshore by seismic profiles. In Late Cretaceous-Cenozoic the region was rifted due to opening of the Arctic oceanic basins. The rifts extend from shelf edge toward mainland along the principal zones of the weakness in the basement. These are the abandoned New Siberian and Vil'kitskii rifts in the East Siberian Sea related to an extensional episode in the Makarov Basin (53-80 Ma?), and presently active Laptev Rift System, connected to opening of the Eurasia Basin (0-56 Ma). It is suggested that the rifting migrated westward during the Late Cretaceous-Cenozoic.