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# Jurassic to Cenozoic geologic history of the Arctic Ocean: new atlas of paleotectonic and paleogeographic maps

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We present an Atlas of paleogeographic and paleotectonic maps which shows major events in the Arctic for 0-157 Ma. We demonstrate that the Mendeleev Ridge has the continental pre-Ordovician basement. The following chronology of events in the history of the Arctic Ocean is proposed: (1) Kimmeridgian-Tithonian (157-145 Ma): continental rifting in the area of the Sverdrup-Banks Basins and in the area of the present-day Canada Basin; (2) Berriasian-Barremian (145-125 Ma): formation of the continental-margin Verkhoyansk-Chukotka Orogen with the South Anyui and Kolyma Oroclines; fast opening of the Canada Basin (∼133-125 Ma); (3) Aptian-Albian (125-100 Ma): formation of continental igneous provinces, rifting and magmatism in the area of the Alpha-Mendeleev Ridge; rifting in the Ust'-Lena, Anisin, North-Chukchi, Podvodnikov and Toll Basins; (4) Cenomanian-Campanian (100-80 Ma): intraplate magmatism in the area of the Alpha-Mendeleev Ridge; (5) Campanian-Maastrichtian (80-66 Ma): a possible start of compressional deformations in the area of the Chukchi Sea; (6) Paleocene (66-56 Ma): a continental rifting was along the present-day Eurasia Basin and the Ust'-Lena Basin; (7) Early-Middle Eocene(56-45 Ma): opening of the North Atlantic Ocean and of the Eurasia Basin started; (8) Middle-Late Eocene (45-34 Ma): a major restructuring of paleogeography and paleotectonics of the Arctic took place ca. 45 Ma – with drying-up of the Barents and Kara Sea shelves and start of the ultra-slow spreading of the Gakkel Ridge, and start of the epoch of formation of normal and strike-slip faults on the Lomonosov and Alpha-Mendeleev Ridges and on the shelves of the Chukchi and East Siberian Seas. The work was supported by RFBR grants (18-05-70011 and 18-05-00495).