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## Amplitude of paleosecular variations during the Cretaceous superchron: Okhotsk-Chukotka Volcanic Belt, high latitudes

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Studying of paleosecular variations (PSV) over geological time allows us to characterize not only the behavior and evolution of the geomagnetic field, but also to estimate the rate of formation of large igneous provinces (LIP). In order to use this paleomagnetic tool, the amplitude of paleosecular variations during the corresponding time interval has to be known, but for the end of the Cretaceous superchron, in particular for high latitudes, such the data sets are extremely small. Our study is aimed at obtaining a limit on the PSV amplitude for Late Cretaceous in order to use these data to estimate the rate of formation of the Okhotsk-Chukotka Volcanic Belt.

The formation of a paleomagnetic record in volcanic flows occurs by acquiring a thermal remanent magnetization (TRM) during their cooling below the Curie temperature of the magnetic minerals. Direction of this TRM can be used for calculation of the virtual geomagnetic pole (VGP), which characterizes the direction of the geomagnetic field at a given time and place. The angular dispersion of virtual geomagnetic poles (VGP scatter,  $S_b$ ) is generally accepted as a measure of the paleosecular variations and uses to assess the duration of volcanic section formation. If the volcanic section was formed for a long time (more than 10 000 years), then the amplitude of the recorded geomagnetic variations will correspond to the expected dispersion for a given latitude. In the case of significantly higher eruption rates, the amplitude of the recorded PSV will be lower than it is predicted by the model for a given latitude.

During the 2019-2020 field seasons paleomagnetic studies were carried out on a number of Late Cretaceous volcanic sections of the Okhotsk-Chukotka Volcanic Belt located in the Bilibinsky District of the Chukotka Region. VGPs and their scatter were calculated for 79 flows of the Kupol object. Preliminary results show that the amplitude of PVS in the Cretaceous for high latitudes of the northern hemisphere was close to that for the last 5 million years ( $S_b=21.4$ , [19.0; 23.9]).

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