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Geomagnetic secular variations and volcanic pulses in the Siberian traps

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We have studied three volcanic sections of the Siberian traps dated between 251.7 +-0.4 Ma and 251.1 +- 0.3 Ma (Kamo et al., 2003), close to the Permian-Triassic boundary and presently exposed along the valleys of Kotuy and Maymecha rivers (at the northeastern margin of the volcanic field of the Siberian traps). These sections correspond to different time levels and include 24, 43 and 42 flows of basalts and alkaline basalt compositions. We apply the procedure used in Chenet et al. (2008, 2009) based on the analysis of the secular variation fossilized by lava flows to estimate the eruptive sequence of the three sections. It appears that each section can be divided into volcanic pulses and individual flows. The volcanic pulses contain several lava flows which have not recorded the secular variations, suggesting an emplacement in less than $\sim$100 years or less. Moreover, we have compared observed VGP (virtual geomagnetic poles) scatter with this one predicted from statistical model TK03 (Tauxe and Kent, 2004), based on Late Cenozoic data, and made the conclusion about compatibility of our data and this model.