POSTSEISMIC DISPLACEMENTS AND DEFORMATIONS IN PRIMORYE INVOKED BY THE GREAT 2011 TOHOKU EARTHQUAKE: RESULTS OF 7 YEARS OF CONTINUOUS GNSS-OBSERVATIONS

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Russian Primorye is located of about 1000 km to the north-west from the epicenter of the Great 2011 Tohoku earthquake, Mw 9.0. However, this region has still been undergoing notable postseismic displacements started immediately after the main shock of the earthquake. A set of continuous and semi-continuous GNSS sites belonging to FEB RAS, FEFU and private companies were used for monitoring of postseismic movements. The maximum cumulative value of postseismic displacements has already exceeded 90 mm which is approximately twice grate than the appropriate coseismic shifts. The most intense nonlinear movements occurred during the first 6 months after the mainshock. Since that time postseismic displacement rates were stabilized and can be fitted well by the liner regression. The orientation of postseismic velocity vectors varies from the south-east for the southern part of the region to the pure south for the northern group of GNSS stations. Relatively simple model with Maxwell's rheology quite well explaining observed the far-field late postseismic displacements.

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