

PLATE TECTONIC THEORY AND NVSK PERMANENT SPACE GEODESY STATION RESULTS

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Continuous geodetic dual frequency receiver measurements on permanent stations are used for most precise both coordinate and velocity measurement. GPS receiver TRIMBLE4700 measurement from July 2000 to February 2016 on the permanent station (NVSK, 12319 in IGS network) allows coordinate receiving with precision up to tenth of a percent. Horizontal movement speeds during long-term measurements reach $V_N = -1.2$ mm/y и $V_E = 26.3$ mm/y. Station displacement corresponds basic tectonic plate theories. Eurasia plate model with Euler pole coordinates 54.2°N , 259.3°E and rotation speed 0.251 degree /million-years is chosen. From 2016 station is reequipped with GLONASS-GPS receiver, what sets new metrological tasks at the NVSK station, located at the Kluchi seismic station 10 km from Academgorodok, Novosibirsk.

Key words: space geodesy, GLONASS-GPS, dual frequency receivers, tectonic plate models, horizontal movement rate.

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