GAGE GNSS Products

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The GAGE facility component of the Earthscope Consortium generates and distributes Global Navigation Satellite System (GNSS) data and products generated from the Network of the Americas (NOTA) and the Antarctica Network (ANET). In this poster, we review the types of GNSS products distributed by the GAGE facility and where to access these products. The time series products for both North America and Antarctica are generated on a range of time scales with latencies ranging from 24-hrs to 2-3 weeks for the highest quality solutions (most complete set of models used). Derived velocity field, earthquake coseismic and post-seismic estimates, discontinuities and stochastic noise models are generated monthly to annually depending on the type of analysis. The figure below shows the rate of change of heights at the North American sites from the latest full GAGE velocity solution released in February 2023. The full description of the methods used to generate GAGE GNSS products is given in Herring et al. [2016].

Herring, T.A., T. I. Melbourne, M. H. Murray, M. A. Floyd, W. M. Szeliga, R. W. King, D. A. Phillips, C. M. Puskas, M. Santillan, and L. Wang, (2016) Plate Boundary Observatory and Related Networks: GPS Data Analysis Methods and Geodetic Products, *Rev. Geophys.*, 54, doi:10.1002/2016RG000529. http://onlinelibrary.wiley.com/doi/10.1002/2016RG000529/full

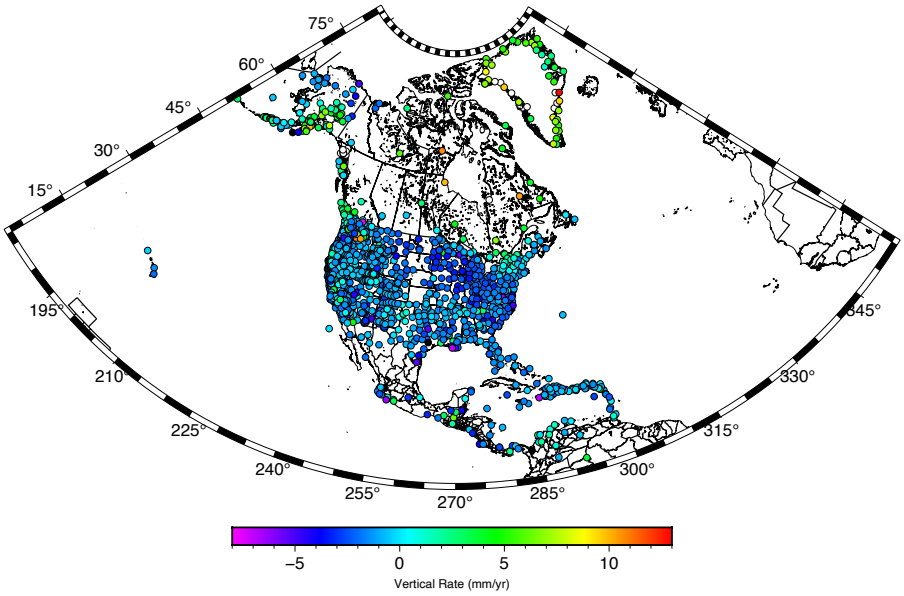

Figure: Vertical rate of change of height for the 2194 stations in the CWU NAM14 solution with vertical velocity standard deviations of less than 5 mm/yr. (The whole solution contains 2200 stations. Time series based velocities for 2699 sites are available).