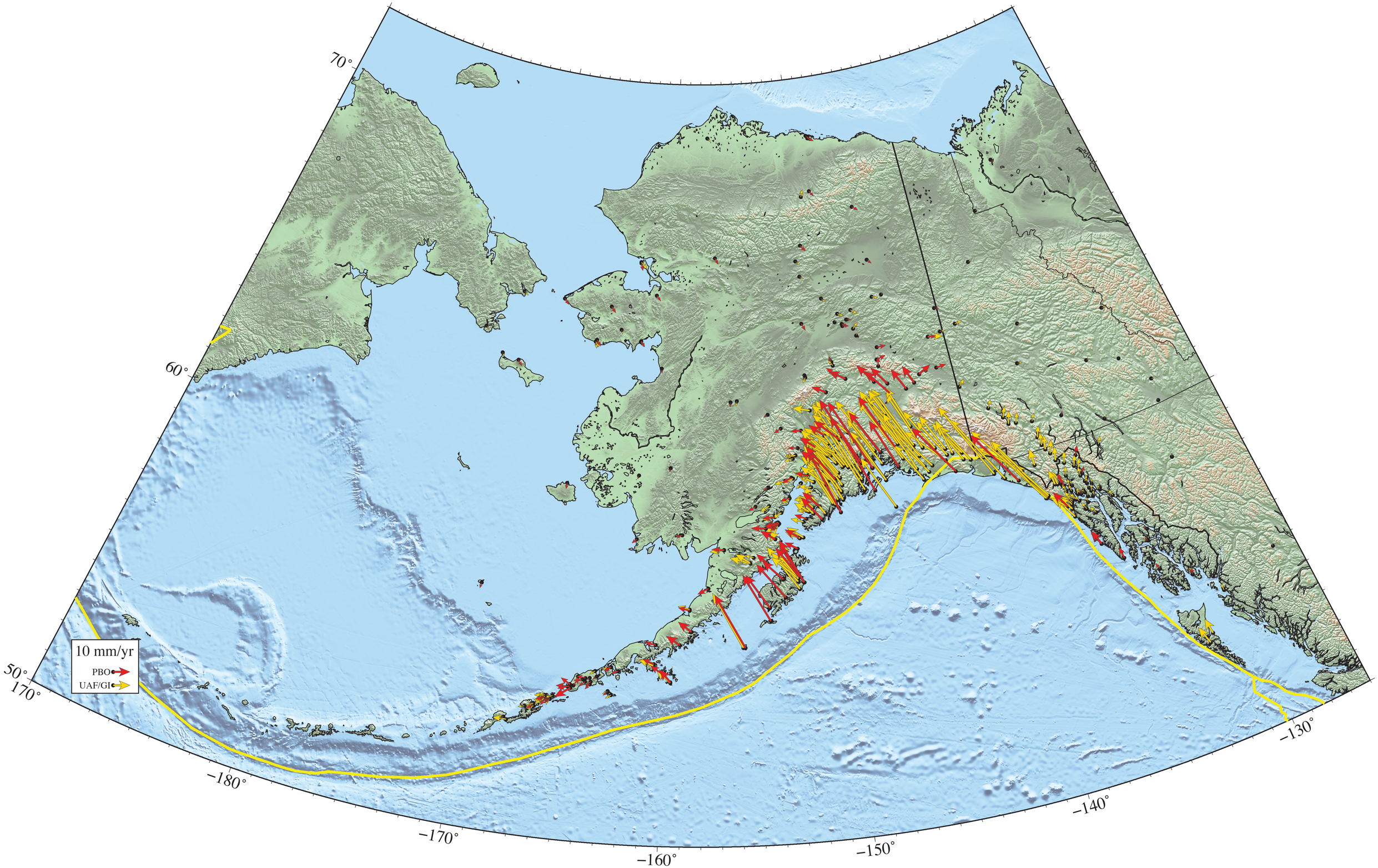
Tectonic Motions of Alaska



Land motion as measured with high-precision GPS instruments. Over time, these motions build up to earthquakes or, as seen in select clusters here, reflect the expansion or contraction of active volcanoes.

Map of Alaska horizontal velocities relative to stable North America (NAM08), with corrections for mantle flow resulting from the Mw9.2 1964 Great Alaska Earthquake.
Red arrows: Motions of EarthScope Plate Boundary Observatory continuous GPS stations
Yellow arrows: Motions of campaign, or episodic, GPS occupations conducted by the Geophysical Institute at the University of Alaska Fairbanks (UAF/GI)
Yellow lines: Tectonic plate boundaries

Post-seismic motion was modeled by UAF/GI. EarthScope PBO data are processed by the Geodesy Advancing Geosciences and EarthScope (GAGE) GPS Analysis Centers at the New Mexico Institute of Mining and Technology and Central Washington University, with velocities calculated by the Analysis Center Coordinator at the Massachusetts Institute of Technology.

For updated velocities, search the web for UNAVCO GPS Velocity Viewer.

For this map and related links, visit unavco.org/velocity-maps

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