Putting the EarthScope Plate Boundary Observatory in Print

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After more than five years of data collection at nearly every GPS site within the EarthScope Plate Boundary Observatory (PBO), the network provides a never-seen-before, nearly continuous view of the velocity field associated with the tectonics of North America. UNAVCO has produced two products within the last year to highlight these results. In October of 2014, we released a deck of playing cards called PBO-52 that features just a small sampling of the more than 1,100 GPS stations in the network. The deck spotlights individual sites and their velocities as well as highlighting a volcano and earthquake within each of four regions (Alaska, Pacific Northwest, California, and Interior). Jokers show a simple way to lay out the cards to visualize each region's velocity field. These cards are being distributed to a wide audience including community members, PBO station permit holders, educators, and other stakeholders, with the intention of raising awareness of PBO as a resource and how PBO can be used.

The second product is a poster on Tectonic Motions of the Western United States featuring a map of site velocities relative to stable North America. The map is a visualization of the dynamics responsible for earthquakes, volcanoes, and mountain building from the Pacific coast to the Rocky Mountains. The poster will be included in packets sent to teachers throughout the country for AGI's Earth Science Week in October 2015. It will also be distributed at the GSA and AGU annual meetings. This fall, we will produce a similar map of Alaska, where UNAVCO maintains 182 sites as part of PBO.

For more, see: unavco.org/pbo52 unavco.org/velocity-maps



Front of poster showing select GPS station velocities from the EarthScope Plate Boundary Observatory and other GPS networks in the Western United States. Velocities are in the North America-fixed reference frame (NAM08) and were calculated by the Geodesy Advancing Geosciences and EarthScope (GAGE) Analysis Center Coordinator at the Massachusetts Institute of Technology from data processed by the GAGE GPS Analysis Centers at New Mexico Tech and Central Washington University.