GETSI module on GPS, Strain, and Earthquakes

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The educational resources we developed provide undergraduate geoscience and geophysics students with an opportunity to learn how to use data from the Plate Boundary Observatory -- a network of fixed GPS receivers located throughout the US. These data are freely available online, and are updated daily if not more frequently. They not only tell us the direction and velocity of individual bits of the North American Plate relative to various reference frames (including the middle of North America itself), but also help us recognize parts of the plate that are deforming, faulting, and likely to produce earthquakes. These scientific observations inform efforts to identify areas that are at risk of devastation due to earthquakes, tsunamis, volcanic eruptions, landslides, and other geologic hazards.