Measurements of the deformation of the Tibetan plateau are important and interesting for many disciplines. Over the last 20 years, we and other groups in China have carried out many GPS observation campaigns in Tibetan Plateau, including the CMONOC-I and CMONOC-II projects, the 2000-Net, 973 project, and earthquake emergency observations. All data have been processed with a homogeneous method. Many of the sites used for the velocity field are campaign GPS sites, because continuous sites are rare in Tibet, but many of the campaign sites have very long measurement histories. The campaign data require careful quality control, and estimates of vertical rates are more robust when spatial averaging can be done to identify outliers and reduce noise. Here we present the GPS velocity field and measures of its reliability, and describe its first-order features. Our vertical velocities indicate 6-8 mm/yr uplift in the High Himalaya and southernmost Tibet due to interseismic strain from the locked Himalayan megathrust, which is similar to earlier leveling observations in Nepal. Vertical velocities decrease to 2-3 mm/yr uplift in the Yarlung valley. In the north and northeast edges of the plateau, the tectonic uplift in Altyn Shan and Qilian Shan is 3-5 mm/yr or more, associated with rapid convergence at the edges of the plateau. Elsewhere on the plateau, most sites show small uplift on the order of 1-2 mm/yr, while some areas bounding the plateau, such as the Sichuan basin, show subsidence. We observe consistent subsidence across the region filled with lakes in central Tibet, which is probably due to increasing lake and/or groundwater loading.

**Key words:** GPS, uplift rate, Tibet