

The HTDP Software for Predicting Horizontal Crustal Motion in California

R A Snay  
NOAA, National Geodetic Survey  
1315 East-West Highway/Room 8112  
Silver Spring, MD 20910  
e-mail: rich@ngs.noaa.gov

The HTDP (Horizontal Time-Dependent Positioning) software incorporates existing crustal motion models for California. The incorporated models, in combination, characterize both the continuous motion associated with plate tectonics and the episodic motion associated with 23 major earthquakes. HTDP may be used to predict horizontal velocities and/or horizontal displacements between two specified dates. The software may also be used to update geodetic positions associated with one date to corresponding positions associated with another date and/or to update given geodetic observations to values that would have been observed on a user-specified date. Forthcoming versions of HTDP will address crustal motion in other regions of the United States in addition to the motion in California. The software can predict motion in either of two geodetic reference frames: the North American Datum of 1983 or the International-Earth-Rotation-Service Terrestrial Reference Frame.