

## GPS Derived Strain Distribution in Bhuj Region of Gujarat and Its Tectonic Interpretation

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To give insight into the stress distribution and kinematics of Bhuj earthquake affected region in Gujarat, five GPS campaigns were made at 14 sites, during 2001-2002. The data collected were processed using the GAMIT/GLOBK software. The day today variations in the site coordinates and the baselines during the after shocks period showed no trace of post-seismic crustal deformation. The estimated velocity field clearly shows anomalous velocity in the epicentral track region. We also computed the strain distribution and principal axes of strains. Compressional strain of about 0.25 micro- strain/yr in NS direction has been estimated in this region which also corroborates with the strain information derived from focal mechanisms. The results are discussed in conjunction with the geo-tectonics, InSAR and other geophysical studies.