



Study of the active deformation of Mitidja (Tell Atlas, Algeria) by GPS

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A network was created in the Mitidja region around the capital Algiers (Algeria). It has been established to study the deformation of the region and the slow operation of flaws in it. The network was installed by a distribution of GPS stations according to structural domains existing in the region. Twelve bases spread across the study area, have been installed. The measurements were acquired by performing four measurement campaigns in 2006, 2007, 2009 and 2010, with sessions over a month of action.

This work allowed the installation of a geodetic network of regional monitoring by methodology GPS in the zone of Mitidja (Tellian Atlas, Algeria). Four observation campaigns were carried out on this area with session's superiors in one month of measurements.

The treatment was carried out with software GAMIT-GLOBK, the network is attached to several world stations IGS treated between 2000-2010, indexed in a precise frame of reference ITRF05. The results presented in this memory show a deformation in shortening ≤ 0.5 mm/an in the plain of Mitidja and the surrounding Solid masses.