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REGAT: The Algerian Permanent GPS Network. Strategy, configuration and preliminary results.

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Northern Algeria, located along the Eurasiatic-African boundary plate is characterised by a moderate to strong seismic activity. During History, some violent earthquakes occurred mainly in the Atlas region, particularly in the Tellian area, leading sometimes to destruction of major cities of Algeria (Algiers, 1716; Oran, 1790; Blida, 1825; El Asnam, 1980; Constantine, 1985; Boumerdes, 2003...). In order to improve the knowledge of the deformation pattern of the Atlasic region, and more globally of the African (Nubia)-Eurasia plate boundary along the Algerian margin, the Research Center of Astronomy, Astrophysics and Geophysics (CRAAG) started since six year to implement a permanent GPS network.
The REGAT (REseau Géodésique de l'Atlas), consists on a set of 56 continuous GPS stations deployed in the Atlas region, from the coastal area to the Sahara Platform with one station at Tamanrasset, in the southern part of the country. The deployment strategy consisted in two phases:
- The first one began on 2004 with 14 stations installed
- The second phase, which started in 2011concerns a set of 42 stations.
We present here the procedure used to collect, store and process the GPS data from the REGAT network and present the preliminary results of the stations which observed more than three years.

Keywords: Earthquake, GPS, Networks, REGAT.