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NOANET: the new permanent GPS network for Geodynamics in Greece

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Greece is one of the most tectonically active regions of Earth. The country is located on a convergent plate boundary comprising the subduction of the African Plate under the Eurasian plate, while the Arabian plate approaches the Eurasian plate in a northwestward motion. The highest seismic activity in Europe currently occurs in the region of the western part of the subduction zone that includes the Ionian Islands. The Kephalonia Fault Zone (KFZ) is a 150 km long dextral strike-slip fault that accommodates relative plate motion between Greece and Italy. NOA has begun installing permanent GPS stations on February 2006 including a EUREF permanent station in Attica, NOA1. Currently we operate nine (9) continuous GPS stations around Greece all sampling at 1-s and transmitting real-time data to Athens. All stations are equipped with Leica 1200 GRX Pro receivers and Leica AX1202 geodetic antennas. Our stations are located in Corfu (KASI), Lemnos (LEMN), Attica (NOA1), Eastern Macedonia (NVRK), Lefkas (PONT & SPAN), Achaia (RLS_), Lesvos (PRKV), and Kephalonia (VLSM). The 30-s data have been processed with GAMIT/GLOBK 10.3 scientific software. We included in our processing IGS and EUREF sites in order to get a more robust solution. At present we are evaluating the quality of the solution as received by our newly created stations. We present sky plots that include phase residuals v. elevation angle in order to evaluate the quality and finding problems in station position anomalies caused by multipath and/or antenna gain. We also present daily and monthly time series used to evaluate the preliminary velocity field.