Geophysical Research Abstracts, Vol. 10, EGU2008-A-11172, 2008 SRef-ID: 1607-7962/gra/EGU2008-A-11172 EGU General Assembly 2008 © Author(s) 2008



Monitoring faint electric dynamic forces in atmosphere as a possible precursor detection of earthquakes. (The Athens' two cases)

K.N. Grigoropoulos (1, 2), E. Saragas (3)

 Social Security Institute of Neos Cosmos (IKA), M.Analatou 1 GR 11744, Athens, Greece,
University of Patras, Department of Geology, GR 26500, Patras, Greece, (3) Institute of Nuclear Physics, NCSR "Demokritos", Athens, Greece (Contact Email: kgrigoro@tee.gr)

A relative study of experimental monitoring of propagation of faint electric forces in atmosphere before an earthquake happens is the objective of this paper. This investigation consists of a continuous monitoring by electrometers in the Athens atmosphere, variations of electric field daily, for twelve months. During this investigation we had the opportunity to remark an enormous variation in the electric signal registered before the quakes. Both cases have to deal with the two earthquakes. The first in November 2007 and the next in January 2008. In the quake of November, the magnitude was 6.5 R with epicenter in Kithera sea, a location.400 km from Athens. In the January case the magnitude was 6.2 R, and the epicenter in Leonidion 250 km. Signal amplitude variation happened approximately ten days before the event. In this research we have used three metal collectors, connected with three amplifiers and the electric signal received by two well calibrated electrometers. Many studies in the last twenty years are correlated with monitoring of underground electromagnetic fields from different countries in the detection of earthquakes. Our conclusions demonstrate that electric fields in atmosphere are possible to be influenced and increased before an earthquake happens.