



Recognition and Characterisation of Neotectonic Faults in Heraklion City area (Crete, Greece): a multidisciplinary approach

Athanasios Ganas (1), Nikos Palyvos (2), George Mavrikas (3), Vassilios Karastathis (1), George Drakatos (1), and Kostas Makropoulos (1)

(1) National Observatory of Athens, Institute of Geodynamics, Athens, Greece (aganas@gein.noa.gr, +30 210 3490180), (2) Freelance Geologist, Navarinou 21, 152 32 Halandri, Athens, Greece, (3) Freelance Geologist, Anastaseos 3 155 61 Athens, Greece

Heraklion is a fast-growing urban centre of Crete (Greece) where knowledge of active faulting is necessary for city planning and infrastructure projects. Neotectonic faults traverse Heraklion city and its suburbs, but they require extensive geological and geophysical studies to be precisely located and characterised in terms of their recent (Late Pleistocene – Holocene) activity. In the frame of a research project assigned to the Institute of Geodynamics by the Heraklion Municipality, we made detailed geological, geomorphological, paleoseismological, and geophysical observations in the broader area of Heraklion city. Our results include seismic velocity models for 11 high-resolution geophysical profiles, paleoseismological logs for trenches and pre-existing outcrops, geological maps of 7 sub-regions, and fault maps at 1:5000 scales for 18 sub-regions. All faults identified are “potentially active” according to the Greek antiseismic code (EAK-2000), since they affect Late Pliocene marine deposits or belong to fault zones that do so.