

HEAD v1.0 : HELLENIC ACCELEROGRAM DATABASE

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During the past thirty years various accelerogram datasets recorded by free-field, strong-motion stations in Greece have been compiled by two institutes that are in charge of running national strong-motion networks. These data sets have been of limited potential use for research mainly due to non-standard processing, non-homogeneous earthquake parameters adopted and a minimum standard of site characterization based only on surface geology. In addition, given an ever-increasing cumulative number of accelerograms a database was required to facilitate data selection by users.

To satisfy all aforementioned issues an effort has been made by constructing the **HEAD** version v1.0 - a unified Hellenic Accelerogram Database - for the period 1973 to 1999. For each station instrument and housing characteristics are presented while where available average observed macroseismic intensity is also reported. Earthquakes hypocentral parameters relocated using appropriate corrections for seismic wave travel-times are also included and originally reported or equivalent moment magnitudes for each earthquake are given. Since the vast majority of recordings included in this database come from analogue type accelerometers, homogeneous data processing performed using realistic low and high pass filters rendered it useful for both research and engineering purposes. For the site characterization all available geotechnical data for each recording station were included in the database, allowing users to perform their own characterization and site selection. However, a preliminary site characterization according to NEHRP 1997 is also included. Unfortunately, a Vs profile is only available for about 15% of the strong motion station sites. This highlights the need for an extended site characterization of accelerometer sites in Greece.

The lack of near-field strong motion data is apparent in the **HEAD** v1.0. This shortcoming reflects the distribution of strong motion instruments in Greece. Recently, through a national project, almost all strong motion instruments constituting the national network have been replaced or upgraded with digital ones. In addition, a denser network in areas of higher seismicity may also increase probability of acquiring near-field recordings. Remote control capability of digital recorders, that is nowadays implemented, will certainly improve functionality of national strong motion network and assure prompt information of local authorities after a strong earthquake by providing recorded strong motion values.