



Seismological information about the recent dynamics of the North-Dobrogean Orogen (Romania)

F. Radulescu, Z. Malita, A.O. Placinta

National Institute for Earth Physics (anca@infp.ro Fax: 0040-21-4050673 Phone: 0040-21-4050670)

The paper analysed the seismic activity in this orogenic area from 1901-2006 time period. The North-Dobrogean Orogen of Romania represents the Kimmerian belt of the northern branch of the European Hercynides, with a Hercynian basement, Paleozoic and Mesozoic sedimentary deposits and Hercynian magmatic rocks. This intracratonic orogen belt is limited in north by the Scythian Platform (by Sfantu Gheorghe) and in south by the Moesian Platform (by Peceneaga-Camena Fault). Epicenters distribution indicated seismic crustal shocks (depths of 0-10 km) placed in Donau Delta, southeastern of Tulcea town and Niculitel-Cerna area (along the Luncavita-Consul overthrusting line). Focal mechanism solutions indicated two faulting directions: one main, N26°E and the other, secondary, N59°W. Also, the tectonic compression forces (P) a N75°E direction. These tectonic information was integrated in general dynamics hypotheses admitted by majority of romanian specialists.