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Caracterization of the seismic sources from Black Sea areal

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In order to delimit the space of the seismic sources, the following elements have been taking into account: depth of the earthquakes foci; development of the earthquakes epicenters in this areal; establishment of the zones of the active faults along which the earthquakes epicenters are aligned. The studies on active tectonics have clearly show the position of the seismic sources, connected to well define active fault. According to the distribution map of the earthquakes as well as to the map of the zones with active tectonics, ten seismic sources were established: North Dobrogea(S1), Central and South Dobrogea (S2), Shabla (S3), Istambul (S4), Nourth Anatolian Fault (S5), Georgia (S6), Novorossjsk (S7), Crimeea (S8), West Black Sea Fault (S9), Mid Black Sea Ridge (S10).

The maximum possible magnitude of the seismic sources was evaluated on basis of either the geologic and seismotectonic data (length of the faults, possible surface break, geomorphologic aspects of relief) considering the international practice and IAEA reccomandation or applying the method of the observed maximum magnitude and observed maximum intensity . The delimitates sources are characterized by a specific geometers shape, generated by crustal events what was produced in long period of time (ex. Seismic source of Central and South Dobrogean) or in short period of time (ex. Mid Black Sea Ridge), the seismic activity being mark by maxim of the magnitude between 4.1 (West Black Sea Fault) and 7.2 (Shabla).

The seismic activity produced in these specific areas, and anterior, was evaluated after the number of major seismic events produced in specific period of time. Is outline that

the most events were produced by North Anatolian Fault (3.903events/year), and the few in West Black Sea Ridge area (0.044 events/year).

All the mentioned seismic source show us that the seismo-tectonic mechanism is very dynamic around Black Sea Basin, being able to generated shocks powerful enough to release events like tsunami type.