MAP OF ACTIVE FAULTS OF EURASIA: GENERAL REVIEW

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The database and Map of active faults of Eurasia, 1:5000000, were compiled according to the ILP Project II-2 «World Map of Major Active Faults» with participation of 50 scientists from 34 countries. The largest faults form the Alpine-Central Asian (AC) and the Eastern Asian (EA) belts. The AC belt widens to the East and joins with the EA belt. The AC belt is asymmetric in transverse and longitudinal directions. The transverse asymmetry is a result of the north-northeastern drift of the Gondwana plates. It produces wide system of active faults because of bouldozing. The longitudinal asymmetry is manifested by decrease of compression from the East to the West. This depends on intensity of the collision processes and properties of the lithosphere. Common features in the belt are three syntaxes, convex to the North and producing redistribution of rocks along the belt that is realized mostly by strike slip. This type of motion predominates in the belt. The EA belt is a system of faults along subduction zones in the Asian-Pacific plate boundary. But not all the faults are related to the subduction: some major longitudinal crustal strike-slip zones and associated faults represent a continuation of the continental fault system that does not correspond to direction of the subduction. The faults in the Asian part of the Eurasian- North American plate boundary also form the belt with complicated, but mostly strike-slip sense of motion. Sources of strong earthquakes are located in active fault zones. Distribution of recent volcanism depends mainly on the mantle activity and does not correspond in some areas to the crustal active tectonics. The environmental effects of recent tectonics have influenced to the human society evolution and contemporary