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Aftershock process of Chu earthquake

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Chu earthquake of 27.09.2003, Ms =7.3 occurred in joint zone of Chagan-Uzun raised block with North-Chu ridge. Epicentral zone cover a series of contrast geological structures of Mountain Altai (two hollows: Chu and Kurai, devided by Chagan-Uzun block, and mountain range, franking them,: Nort-Chu, Kurai, South-Chu, Aigulak). The seismic process occurred in zone of expressive block structure, and this is embodied in its space-time structure.
The high accuracy of hypocental construction in epicenral zone of Chu earthquake is provided by local network of seismological stations (fifteen stations) and experiments with temporary station network in this zone (20-50 stations).
The first stage of aftershock process formation is connected with Chagan-Uzun block. The second large aftershock of 01.10.2003 changes cardinally spatial pattern of aftershock process. Instead of round area an elongate aftershock area is formed along boundary of Kurai hollow with North-Chu ridge. In the following process spread out in north-west angle of Chu hollow. Linear elongate aftershock area is subdivided into four elements. The north-west element has form of horse tail, starting as a line in area of outlet of Aktru River in Kurai hollow, and ramifies short of settlement Chibit. Slope of plane of aftershocks for this element is determined from hollow under North-Chu ridge. The seismic process is going not along boundary hollow-mountain ridge, but displaced in hollow side. The central part of element – this are mainly horizontal shift faults, and outlying districts have pronounced vertical components of displacements. The second element stretches from Aktru River to Chagan-Uzun block. Earthquake epicenters in plane make two curved parallel lines. In the angle of Chagan-Uzun block are ceiling amount of uplifts. The third element is the boundary of Chagan-Uzun block with North-Chu ridge. The forth element is formed by aftershocks, leaving in range of Chu hollow. Areal dispersal of earthquakes is characteristic for events. The south-east ending of aftershock process is marked by change of horizontal shift on vertical movements. From data of seismotomography Chagan-Uzun block and raised north-west block of Kurai hollow have raised velocities of seismic waves. Linear contrast changes of seismic wave velocities are fixed along the line of aftershock process.