

SSA 2010 Annual Meeting Abstract

Session: Operational Earthquake Forecasting

Schedule: Wed 21 Apr – PM Poster #75

Location: Exhibit Hall

Presentation Type: Poster

Presenter: Kerimov, Ikram

EARTHQUAKES PREDICTION: PROPER AND NON-PROPER SEISMICITY, THEIR RELATIONS WITH GEOPHYSICAL FIELDS' PRECURSORS.

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The new - Regularity of microseisms anomalous emissions before an earthquake with multi-stage increase in intensity, decrease of their dominant frequency, polarization in the direction of the epicenter of the future earthquake and measurable at any distance from the epicenter zone - recognized as a scientific discovery by the former USSR State Committee in March 1988, with priority from May 1979, led to significant changes in requirements to seismic networks, information analysis, on understanding of anomalous nature, behavior and relations with geophysical precursors. We proved that their manifestations depend on the microseisms' main frequency current range and delay between their appearances could be used for determining the time and magnitude of the future earthquake.

Implementation of prediction using all complex of precursors request analyzing their reliability: they did not appear before quite a number of events. This has been promoted by analyzing world strong earthquakes for more than 20 years for studying of the seismicity relationship of different planet's regions. We came to the obvious conclusion that if this interaction exists then everywhere must be earthquakes which reproduce non-proper seismicity of their regions, invented terms proper and non-proper seismicity and have studied their characteristics. It became clear why considerable part of long- and middle-term geophysical precursors does not appear: the earthquakes reflect non-proper processes and were induced by natural events in other regions of the world. Conclusion: Such approach showed that a real impact of strong events reaches 90% and more and differences in times between events induced by them indicate the regions' properties: activity, dynamics, and stressed states. And the results of these researches created a base for real possibilities for earthquake prediction itself.