

RESEARCH ON FORECASTING OF EARTHQUAKES

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ABSTRACT

This article deals with a brief account of natural pre-earthquake phenomena such as gravity variations, radon emanation, anomalous electric field and changes in meteorological parameters such as temperature and relative humidity.

A sample result from the Statistical Method which gives intermediate term (of the order of a few years) predictions of earthquake and its magnitude is given.

A novel technique of recording gravity variations coming presumably from distant earthquakes in preparation has been started with the assistance of the Republic of Azerbaijan. More work is underway for improving and expanding this effort.

The concept of earthquake preparation zone which is the first sign of an imminent earthquake is described. This is very important as all the ground based pre-earthquake signals are generated all over this zone. The size of this zone is dependent upon the size of the earthquake under preparation and may have a radius of more than 400 km for an earthquake of magnitude 6 or more. Furthermore, use of dedicated satellites to monitor earthquake precursors from space has been discussed. In addition to ground based research, the countries involved in space based research on earthquake prediction include France, Russia, Italy, Mexico, Japan, the UK, Ukraine and the USA. A humble beginning by the CES in establishing a telemetered network for monitoring some ground based earthquake precursors is also presented.

The present global trends in this field are a source of effusive optimism for successful earthquake prediction to become a reality in the near future.