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Precursor Phenomenos in Vrancea Zone

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Seismic active zones have particularities generated by geological structure. For this reason seismic precursors and analysis methods differ. Tectonic stress is permanent and generates increasing effects when an earthquake occurs.. Prediction is impossible but sometimes short-term forecast is possible. We created a multidisciplinary network (AeroSolSys) with monitoring stations in Vrancea seismic area characterized by deep earthquakes. There are correlations between several measured parameters: radon concentration, earth radiation, air ionization, telluric currents, ULF radio waves disturbance, magnetic field, temperature and acoustic waves. We have not found a footprint that can be used in seismic forecast. Sometimes radon indicates an increase in tectonic stress, in other situations the electromagnetic field or the temperature in the borehole. The conclusion is that only a multidisciplinary network and analysis helps us to understand the precursor phenomena. There are few cases when we can hear microfracturing of rocks before earthquake with few hours before. There is not a pattern that can help up to forecast with high probability. The sensors must be chosen according to the particularities of the location. Our monitoring stations are located in areas with active failures with different effects. In three locations we recorded reaction of animals before earthquakes correlated with microfracturing of rocks.