

## **Reflection of seismotectonic processes in abnormal changes of intensity of the geomagnetic field (on the example of Oguz earthquake in 04.09.2015, ml=5.9, H - 15km, Azerbaijan)**

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Magnetometry along with its traditional use in geological mapping, clarifying the position of fault zones, borders of geological complexes, has been successfully used in seismic forecasting researches in identifying zones of stress strain condition of the geological environment. These zones are characterized by high gradient of increment of the geomagnetic field's intensity and high seismic activity. Geodynamic regime in the hearth of Oguz earthquake with ml = 5,9 (04.09.2015) was expressed in the formation of drop-shear extension deformation under the influence of the North-Adzhinours fault in Caucasian direction. In this case, left-sided shift in the hearth is caused by the influence of the left-sided Arpa-Samur fault, transverse to the Caucasian direction.

The earthquake was preceded by a local seismomagnetic effect and happened in the zone of high gradient intensity of the geomagnetic field.

Deformation of the extension in the hearth was followed by the formation of negative -700nT anomalies of the geomagnetic field. At the moment of the earthquake and the formation of compression deformation, preceded the manifestation of a positive local seismomagnetic effect +20nT.

Spatiotemporal magnetic measurements that carried out after the Oguz earthquake has not revealed the stress strain condition of the geological environment that indicates complete elimination of the tension in the focal zone.