Yambaev Kh.K.
Geodetic Monitoring of the Earth’s Crust Movements: Status, Possibilities, Prospects
The First Russian Geodetic Test Field Celebrates its 100th Anniversary

The first geodynamic test field in Russia was established in the Caucasus. In 1910-1912, the Corp of Military Surveyors performed high-accuracy leveling in the Absheron Peninsular in the form of separate test fields combined in a large one later. In the difficult years of surveying development (1928-30), the first repeated leveling measurements were performed; they made the basis for studying modern vertical movements of the earth’s crust.
A map of modern vertical movements of the earth’s crust in the territories of the CIS (Scale 1:5 000 000)
A fragment of the Map of the Earth’s crust modern vertical movements
The leveling deformation network of the Crimean atomic power station
A diagram of elevation differences accumulation rate (1984 -1988)
A map of modern vertical movements of the Earth’s crust
The Rogun Hydroelectric Power Station (HEPS) Constructions
The Inguri Hydroelectric Power Station (HEPS) Dam
The leveling Network in the Ciscaucasia
The legs of repeated leveling.

1971 — the year of an earthquake
Vertical movement rate curves determined from the results of repeated high-accuracy leveling in the earthquake zones

a) Svetlograd – Budyonnovsk  b) Nevinnomyssk – Mineralnye Vody  c) Armavir – Svetlograd
A DIAGRAM of the Earth’s Crust Movements on line Leninakan – Spitak – Kirovakan

dec.1988 (after the earthquake)

oct.1988-nov.1988

A network of constantly running GPS / GLONASS observation Stations

A network of monumented control points (2-4 measuring cycle sessions per year or when necessary)

Geophysical equipment. Stations for constant recording the Earth’s crust deformations and seismic data

A Dispatch Control Center

An Analytical Center for Geodynamic Research

A diagram of the deformation monitoring system