ABOUT THE ASSOCIATION OF A SEISMIC PROTECTION OF BLACK SEE ECONOMIC COOPERATION MEMBER STATES

The meetings of working groups of Black See economic cooperation member states in the sphere of science and technology have worked out decisions about separation of the most important problems for association, in the solutions of which all the countries are interested. The cooperation includes Azerbaijan, Albania, Armenia, Bulgaria, Greece, Georgia, Moldavia, Russia, Rumania, Turkey, Ukraine and Serbia that joined later. The branch "seismology" is among these problems because all the countries of the Association are located on territory of raised or high seismic activity and suffered from earthquakes lots of times.

In 2000 in Krasnodar, Russia, at the premises of the Kuban State University took place the First organizational conference on the creation of a seismic protection Association of Black See economic cooperation member states aimed at the organization of conditions for corporate participation in the seismic sphere research. The creation of such an organization is not new. There is IRIS, the seismic institution association, in the United States of America. It includes both American institutions and Universities and academic institutions branches of foreign countries. At the First organizational conference in 2000 presented Professor from IRIS, who took place in a number of the following meetings. At the First organizational conference was adopted a charter of Association but the question about a location of its representation was not solved. During the year the superior body of Black See economic cooperation that is Council of Foreign Ministers of Black See economic cooperation member states approved the adopted charter. In 2001 at the premises of The Center of Black See research in Athena, Greece, took place the Second conference of Association of a seismic protection of Black See economic cooperation member states. The question about choosing the country of the Association office location was being decided there. Two countries, Russia and Greece, made a claim for it. As a result of election it was decided to place the Association office in Greece. Unfortunately, economic events in Greece didn't allow to unfold office activity fully, although in separate cooperation countries scientific researches were led with success.

In 2011 in Rostov-on-Don at the premises of the South scientific center of Russian Academy of Science was hold the Third conference of a seismic protection Association of Black See economic cooperation member states. By this time international scientific journal "Ecological reporter of scientific centers of Black See economic cooperation" has been established in Russia. This journal publishes scientific articles in Russian and English, and gives an opportunity to foreign scientists to exchange scientific achievements in the seismic sphere. The journal is introduces to the category of citing in the Russian Science Citation Index. There were published world-class articles in the sphere of seismology, mechanics, mathematics and physics by Russian and foreign scientists, academics of Russian Academy of Science. At the Third conference of Association of a seismic protection of Black See economic cooperation member states it was decided to locate the Association office in Rostov-on-Don and its representation in Krasnodar. It is made because the used in the Association scientific equipment is kept on the South scientific center of Russian Academy of Science and the Kuban State University money. Afterwards, after the movement to the main university of the Russian South to the Southern Federal University from the Kuban State University and its Informational-analytical center of Black See Economic Cooperation that was made by several departments, possibilities of organization will raise significantly.

Special role in the seismology research play researches in the sphere of mechanics deforming of solid object that are led together with Russian seismologists. The pioneers and leading seismologists of Russia academics A.G. Gamburtsev and M.A. Sadovsky who were earlier the directors of the Earth Physics Institute of the USSR Academy of science saw the success of the seismology sphere in the approaching of this science with mechanics. Gamburtsev concluded in of his works: "It's necessary to direct research of forecasting methods of earthquake's time to the area of searching mechanical earthquake precursor. Such researches can be successful only in the case, if they will be based on deep investigation of all particles of mechanism of quick and slow movements of blocks in the crust of Earth of seismological active districts". Sadovskiy stated, that there is a impossibility of earthquake forecasting, basing only on layered structure of crust of earth. It's necessary to take into consideration real block models. Namely drawing together of researches with mechanics of deformed solid object allows to use new possibilities completely, which are at disposal of scientists after creation of high accuracy GPS/GLONASS receivers, which allow to catch surface movements of 1 ml in crust of earth. Created in Russia mechanical concept of seismic intensity forecasting was reported in different countries and program EPOS od euro commission found it rational to put it on the website in Vienna http://rp7.ffg.at/eu-russian opendays. This concept was used along with other approaches for providing seismic security of territory of Olympic building in Sochi and Krasnaya Polyana. In joint publication with foreign scientists was marked, that organized monitoring of seismic intensity on this territory, including range of high-accuracy receivers and tiltmeters and also used mathematic modelling, which have been created at first time and they don't have analogue in the world. Finally, following the created mechanic concept of forecasting seismic intensity, it managed for the first time in the world to build physical and mechanical model of earthquake in 2015, as scientists A.G. Gamburtsev and M.A. Sadovskiv have forecasted, on bases of research of mechanical precursor for blocked structure. This type of earthquake, which was called starting, wasn't described earlier. It appears because of destruction blocks of lithosphere plates by abnormal surface stresses, and as it was founded, it appears on the surface in the same ways as crust of earthquakes, which are connected with movement of lithosphere plates in splits.

Appealing scientists of Black sea region and volunteers from other countries to cooperation in this area, Russian authors of this project enunciate the theory of this earthquake in details in English. They hope, that it will consolidate association of seismic security of members of economic cooperation in Black Sea region, make it's activity in their countries more important and useful.