

SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FAR FUTURE (D4)
Contribution of Space Activities to Solving Global Societal Challenges (4)

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SPACE PROJECT IONOSAT-MICRO – UKRAINIAN CONTRIBUTION IN EARTH OBSERVATION
SYSTEMS FOR DISASTER MANAGEMENT

Abstract

Today the research in the branch of earthquakes (EQ) forerunners study using space technology acquires more and more supporters in many countries. First time the existence of EQ precursors in the ionosphere was detected by the team of experimenters of INTERCOSMOS-19 satellite and the observations results were published as early as in 1979. From this time a wealth of publications informed more or less scientifically grounded about the observations of such precursors under EQ epicenter. Mostly all such results were obtained as “piggy-back” data of other research, but French mission DEMETER was especially devoted to the study of this phenomena. As the result of all these researches, today the level of social confidence in the EQ precursors existence is so high that, as it is known, several dedicated spatial experiments are under preparation nowadays in different countries: CSES in China, “Ayat” in Iran, “Amir” in Kazakhstan, “Ionosat-Micro” in Ukraine to name a few. Also recently NASA accepted the project to use the data from the existing GOES weather satellite to try and detect infra red signals prior to large earthquakes. The verification of the principal hypothesis of ionospheric signatures of the EQ under preparation formation is also between the main goals of Ukrainian space project “Ionosat-Micro”. The peculiarities of this experiment and the scientific payload as well as the participation teams are shortly described in the report. The comparison of this experiment with other mentioned above is made and it is stressed that all these projects need to be discussed and coordinated to agree the scientific substantiation of every project, their available payload and operation schedule. It is proposed that the International Academy of Aeronautics may serve as international discussion forum to get together the scientists and engineers involved in these projects. The participation in the ground support of these projects, and not only by the countries of experimenters, would be of serious use and benefit too. Also the conditions of the projects data accessibility for international community have to be discussed. The organization of the international consultative committee will surely help experimenters to rise the projects outcome what in its turn may considerably foster the progress in this very important natural research branch. This work is partially supported by SSAU contract N 1-05/08.