

# Space Weather Studies in Azerbaijan

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As not only ground- and space-based engineering-technical and communication systems but also human life and health are exposed influence of the Space Weather, particularly, of the solar and geomagnetic activity, and in some cases these effects can be very devastating, it is of great importance to obtain more and better knowledge about solar and geomagnetic storms and their effects, in order to decrease and/or to forecast the disturbance factors.

Expanding research activities in the field of Space Weather and its effects' study conducted in whole world during last two decades has undoubtedly influenced Azerbaijani scientific community who has initiated wide investigations on these problems. As economical difficulties of the transition period do not allow yet Azerbaijan to participate directly in the big European and/or international Space Weather projects so these investigations mainly cover studies of Space Weather effects and influences on the different technological systems and human life and health. There is a well-established group on study of solar-terrestrial relations in the Azerbaijan National Academy of Sciences joining efforts of highly skilled scientists and specialists from different fields of science and technology – astrophysicists, geophysicists, physiologists, geography, doctors, engineers, etc. Some major results of these complex investigations are provided in this paper.

Space Weather Studies in Azerbaijan cover the following areas: influence on technical and other systems (scintillation of microwave radio signals, oil production activity and functioning of oil-gas transportation pipelines, power grids, Caspian Sea level, climate, traffic accidents, etc.) and possible affects on human life and health (virus-epidemic diseases, human brain functional state, cardiovascular diseases, some ophthalmologic diseases, acupunctural indexes, etc). Obtained results are published in European and domestic publications.

Azerbaijani group pays an attention to the public awareness and publication of scientific information about Space Weather, impending hazards from space, especially the prediction of solar and geomagnetic storms, etc. It is carried out, in particular, in domestic media, newspapers, television and radio broadcasts, as daily space weather information, weekly interviews, monthly newspaper columns, which are addressed mainly to public, medical and technical specialists. Scientific-popular articles are usually published in special journals, such as “Science and Life”.

Becoming a member of Azerbaijani group to the European Space Weather Service Network could allow intensifying of conducted research works through step-by step involving this team in the European and other projects, exchanging ideas, results, initiating bilateral and multilateral collaborative investigations within Network members, preparing or training of specialists for Azerbaijan, using Azerbaijani ground-based facilities (i.e., observatories) for filling of gaps in latitude or longitude, etc.