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PREVENTION OF GEO-EFFECTIVE PHENOMENA ARISING FROM SOLAR ACTIVITY

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The article considers geo-effective phenomena that arose in near-Earth outer space and on Earth during 23 and 24 cycles of solar activity. The results of the SWPC NOAA data processing showed that about 90% of proton events with an energy of $p_T > 100$ MeV and 100% of terrestrial increases (GLE) are associated with solar flares with a capacity of more than M5.0. Methods of operational prevention of high-energy proton flows in near-Earth orbit are considered. As indicators, it is proposed to jointly monitor soft X-rays in the range of 0.1- 0.8 nm and protons with $p_T > 100$ MeV. Characteristics of associated active regions (AR) on solar hemisphere are considered for prediction of GLE. The types of the most effective ARs and their peculiarities of development before a geo-effective solar flare are identified. One-day GLE forecast procedure for AO monitoring was proposed and its effectiveness and success were evaluated.

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