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ASPECTS AND FACTORS DETERMINING THE SAFETY AND SUSTAINABILITY OF SPACE
ACTIVITIES IN OUTER SPACE

Abstract

The issue of safety and long-term sustainability of space activities is becoming increasingly important and relevant. In terms of the revitalization of the use of space activities for socio-economic and innovative scientific and technological development, the increasing proliferation of space debris and the probability of collision and interference raise concerns about the long-term sustainability of outer space activities, especially in low-Earth orbit and near the geostationary orbit. Changes in the global context of space development force us to reflect on the need to establish international standards, rules, and regulations, to control the behavior of states in the near-Earth space, which would ensure long-term sustainability of space activities. In order to adapt to the current and future challenges, it is necessary for the international community to find comprehensive solutions to current and future challenges in the field of international space activities. The international juridical issues in relation to security as well as the sustainable development of space activities were considered. As well, a system of measures and modern mechanisms in regards to international, legal, organizational and technical matters, used for the safety and sustainability of space activities in the near-Earth space is presented. To solve this problem, an appropriate space exploration position allowing you to quickly respond to changing environmental factors that lead to an increase in the number and range of users is required. In the long term; the technical, scientific and international safety regulation concerns, and the system of measures and modern mechanisms, as well as the sustainable development of space activities should all be directed towards: the development of an international system of monitoring and controlling the spatial conditions on a basis of reliance on national space control; the harmonization of national legislation and of international space law; creating conditions to control and prevent the accumulation of military space capabilities in relation to the commercialization of spatial activities; the emergence and growth of mass-transport aero-spatial traffic with a dual-usage purpose; the development of a system of transparency and mutual-trust building measures in outer-space activities; the creation of an international institute monitoring security-centric obligations in spatial activity in near-Earth space and international regulatory mechanisms relating to the prosecution of the failure to fulfill obligations and regulatory compliance.