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Policy, Legal, Institutional and Economic Aspects of Space Debris Detection, Mitigation and Removal
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ENVIRONMENTAL MEANS FOR PROTECTION NEAR-EARTH SPACE FROM DEBRIS

Abstract

Legal instruments of environmental law such as authorisation, evaluation of environmental impact, rationing, standardization, zoning, ecological taxing and insurance need to become a part of national legislations of space-faring nations as a mean of combating space debris. It is proposed to evaluate of impact to near-Earth space by space projects for compliance with standards for maximum allowable littering, according to which the tax rate will be established. Quantitative indicators of maximum permissible littering are proposed to be determined by parameters such as weight and quantity. The gradation of these indicators should be defined as units of the tax base, on the basis of which the tax rate will be established. Implementation mechanism of this measure lays in obligation of subject to make a report about influence of space project, planned by him, on the littering of near-Earth space. It can define the levels of innovations and ecological security, on the basis of which ecological tax rates adjusted. Also results of evaluation of impact of space project on the littering of near-Earth space can be used as a source for evaluating risks during the conclusion of insurance contracts. Standardization should include requirements for space projects in their full life cycle. It is proposed to extend the functional zoning of protected near-Earth space regions on establishing environmentally friendly modes of use. Mechanisms of environmental insurance envisaged to expand by the means of compulsory liability insurance, caused by identified space debris and voluntary insurance of damage caused to near-Earth space. The last one can be reason for granting tax concession. International legal and organizational support of should be upgrade. Organizational part including: 1) two-tier system of space situational awareness, which includes central system, the holder of which is proposed to the UN Office of Outer Space Affairs and the preservation of current spending local systems for the protection of their military and commercial secrets; 2) global fund active removal of space debris must be formed and funded space countries by taxes paid by an entity within the authorisation procedure. Legal suggestions are: 1) fault as a basis for international liability for damage caused in space should be established on actual capabilities and control over debris; 2) mission participants proposed to enter into an agreement on mutual rejection of liability for damage to each other.