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**REVIEW OF METHODS AND MEANS FOR SPACE DEBRIS REMOVAL FROM  
LOW-EARTH ORBITS**

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The importance of the space debris problem in the today's world is generally recognized. The number of space debris objects in near-Earth space is rapidly growing. The goal of this paper is to overview existing methods, systems, and means for space debris removal from low-Earth orbits with the aim to contribute to the solution of a topical problem of outer space utilization: the problem of space debris in near-Earth space. Space debris removal systems are under active development in the leading space countries. The overview showed that in scientific publications a great attention is paid to passive and active methods and means for space debris removal from near-Earth space. Relatively recently, a start was made on studying the feasibility of space debris removal systems using a combined method, which simultaneously uses means developed on the basis of passive and active methods. This paper considers a combined contactless space debris removal system with a service spacecraft equipped with electrojet engines and an aerodynamic compensator in the form of two plates. The combined system implements a directional deorbit of space debris objects by acting thereon with an ion beam. The proposed combined space system may be used to remove space debris from low-Earth orbits to the dense atmosphere followed by its burn-up. The combined line in the development of space debris removal systems is yet to be studied; however, its implementation would offer some advantages over active and passive methods used alone. Because of this, the development of the proposed combined space system with an aerodynamic compensator for contactless space debris removal is a promising line, which poses problems for further studies.

**Keywords:** *space debris objects, problem of space debris in near-Earth space, systems and means for space debris removal from near-Earth orbits.*

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