

IAF SPACE OPERATIONS SYMPOSIUM (B6)  
Interactive Presentations - IAF SPACE OPERATIONS SYMPOSIUM (IP)

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DEMAND ANALYSIS OF SPACE-BASED SATELLITE PLATFORMS USING NEW TYPE  
ELECTRO-OPTICAL COUNTERMEASURES WEAPONS**Abstract**

Electro-optical countermeasures are an important part of electronic warfare. Benefiting from the rapid development of space-based optoelectronic equipment, the status of space optoelectronic confrontation is increasing day by day, and the impact is becoming more obvious. With the development of space-based weapon platform technology, the era of load-determining platforms is coming. In this paper, the optoelectronic reconnaissance satellite, as the main combat object, combs the weapon platform technology from several aspects, in order to meet the operational requirements of optoelectronic counterweights. This paper firstly starts from the problems faced by military satellite platforms, and the combat mode of space optoelectronic countermeasures is analyzed. Optoelectronic tracking, space propulsion, navigation, guidance and control strategy design, as three aspects of platform requirements, are analyzed. It also provides solutions to technical problems such as vertical strikes of space-based weapons, quantum imaging of ultra-long targets, efficient propulsion strategies, and antimatter propulsion, and refines key technologies. The research results of this paper are helpful to the comprehensive mastery of space-based weapon platform technology. Research results have some help fully grasp the role of space-based weapons platform technology.