25th SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
International cooperation: goals, constraints and means (2)

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SPACE SECURITY AND GLOBAL CONCERN (INDIA PERSPECTIVE)

Abstract

Increased use of space applications, particularly satellite communication in telecommunication, entertainment, imaging, navigation, weather forecasting, defence etc. has emphasised the need of a greater number of satellites. The growing number of satellites has added the problem of junk" or space debris by increasing the probability of space collisions. Destructions of such satellites directly cause a serious impact on the nation's annual space budget and high capital loss to the commercial space communication providers. Damage to satellite operations also causes losses in its services. The issue of weaponization of space raises the important, yet ultimately intractable question of whether the migration of combat operations to orbital space is bound to take place sooner or later or it simply, is a speculation of few scholars military brass. The space weaponization rests on the assumptions inevitability, vulnerability control. The code of conduct would ensure the safe operation of satellites and would also promote increasing cooperation in space which would tend to reduce tensions in the international politics which will help in preventing any kind of con ict in future. Present study is focused on how space security is compromised due to space debris and its consequences to variety of sectors. Development towards space situational awareness (SSA) is seen in many countries like United States, Canada, EU, France, Germany, China, India and Japan. . . etc., which are all developing space surveillance capabilities for various purposes. The nations should focus on strengthening their basic capacities of the space industry, accelerate research on leading edge technology, and continue to implement important space scientific and technological projects in key fields. As a space-faring nation, it is important for India to constantly monitor the rapidly changing global space order. At the end, some potential solutions and recommendations to improve structural strength of commercial satellites in order to extend their life, similar to military satellites, are required which will protect against electromagnetic pulse radiation and against collision with micro-debris. Some sort of space traffic regulatory is required to control satellite traffic in populated orbits. For out of service satellites, commercial satellite companies require to boost their devices into " orbits where they may stay for thousand years or de-orbit to Earth where they will burn up in atmosphere.