## IAF SYMPOSIUM ON SPACE SECURITY (E9) Policy, Legal, Institutional and Economic Aspects of Space Debris Detection, Mitigation and Removal (1-A6.8)

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## PEACEFUL (AB)USE OF OUTER SPACE: INTERNATIONAL LEGAL TOOLS TO CURB KINETIC ANTI-SATELLITE WEAPON TESTS

## Abstract

Four major kinetic energy interceptor anti-satellite (ASAT) weapon tests, conducted in 1985, 2007, 2008 and 2019, generated thousands of trackable and hundreds of thousands of untrackable space debris, some of which are still orbiting the Earth and pose threat to space assets. Under the law of war, or international humanitarian law (IHL), it is required to conduct armed attacks in accordance with principles of distinction and proportionality, which in most cases would render kinetic ASAT attacks illegal, since the effects of attacks are unpredictable and it is hard to determine whether satellite at specific moment is used for military purposes making it a legitimate military target. Since none of kinetic interceptors directly targeted assets that belonged to other states, these tests could not be legally qualified as armed conflict to invoke application of IHL. However, there are legal tools to evaluate legality of these peace time events. IHL does not merely regulate environment of the armed conflict – some rules are also applicable in peace time. One of these rules is enshrined in article 36 of the 1977 Additional Protocol to the Geneva Conventions requiring weapon developers to make legal reviews of new weapons before their actual use. Unfortunately, art. 36 does not clarify whether weapon development procedures, including testing of weapons, be terminated if legal reviews were negative, or at which stage of weapon development should they be conducted? Author argues that in circumstances of armed conflict, kinetic ASAT weapons would contradict IHL due to failure to meet proportionality and distinction requirements, therefore, legal reviews of these weapons in peace-time would be negative. Author also argues, that weapon reviews should be made before testing a weapon and should not be tested if legal review concluded non-compliance with international law. Another kinetic ASAT weapon test legal evaluation tool is constructed under the principle of non-interference with technical means of another state while using one's technical means. Although the mentioned ASAT weapon tests were not specifically aimed to interfere with other state's space assets, however, numerous times satellites needed to make maneuvers to avoid collisions with orbiting debris from these tests. Author argues, that principle of non-interference requires the states to foresee direct and indirect negative effects of their conduct and abstain from any action which would interfere with other state's space asset normal functioning. Author concludes that current legal regime prohibits kinetic ASAT weapon tests.