## 26th SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3) Assuring a Safe, Secure and Sustainable Space Environment for Space Activities (4)

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## THE HUMANITARIAN DANGERS POSED BY ANTI-SATELLITE WARFARE.

## Abstract

Over the past twenty years a vast literature has emerged examining the military advantages conferred on states by the use of satellite systems and the strategic implications of the 'revolution in military affairs' brought about by satellite support of battlefield systems. In wartime, the military behaviour of states is constrained to some extent by the morality accepted within that culture and by the internationally accepted ethical norms reflected in the laws of war. In the contemporary world, where the populations of states have become critically dependent upon a vast range of services provided by space satellites, attacks on such systems have implications that go well beyond the political and strategic effects they might have.

Yet there has been very little analysis to date of the ethical implications of space warfare. This paper addresses this issue, to demonstrate that space warfare is not simply a question of technologies in conflict, but that it has profound moral implications that need to be taken into account for a full understanding of the implications of conducting such warfare.

The paper notes the temptations to attack satellites because of their role as force multipliers, examines the threats posed to dual-capable satellite systems by such attacks and the implications of loss of services for critical functions such as power grids, emergency services communication networks, navigation aids and so on. It demonstrates that interference with such facilities violates contemporary laws of war, but that satellite systems have little protection under current laws of war. It notes the ethical implications of such attacks and criticises the idea that anti-satellite warfare would be a 'victimless' form of warfare. The paper concludes by calling for a modification of existing laws to take this into account and calls for greater urgency in creating an arms control to protect satellites in Earth orbit.