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DOMESTIC AUTHORIZATION AND SUPERVISION OF PRIVATE MEGA-CONSTELLATIONS OF  
SATELLITES: PUSHING THE BOUNDARIES OF INTERNATIONAL SPACE LAW?

**Abstract**

Over the past few years one of the main developments in the space field has been the emergence of private entities as significant outer space players. While the involvement of private entities has been beneficial to the space sector, for examples by enabling 'new uses' of outer space, it has also posed notable challenges to the legal framework applicable to it. These challenges are mostly due to the fact that the implementation of these 'new uses' question traditional outer space law principles and often result in creative, yet inconsistent, interpretations of these principles at domestic level. In this respect, private mega-constellations of satellites constitute a paramount case. On one side, such constellations promise to bring substantial benefit to civil users. On the other side, the deployment and utilization of mega-constellations of satellites largely clashes with the traditional understanding of fundamental space law principles, and almost inevitably leads to forms of non-traditional interpretation of those principles. If one consider that mega-constellations of satellites will mostly be owned and operated by private entities, thus requiring certain States to put in place a domestic regulatory framework to authorize and supervise them, it is easy to realize how the presence of such constellations might eventually result in the fragmentation of national space legislation and in the overall weakening of core space law principles. In the light of the above the purpose of the paper is threefold: first, to highlight the legal challenges that private mega-constellations of satellites pose to the regulatory framework applicable to space activities; second, to indicate what elements a national space law should contain to properly regulate the management and utilization of such constellations by private entities; third, to review the domestic space legislation of those countries likely to deal with private entities operating mega-constellations of satellites and to recommended changes to it.