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INNOVATIVE CONTRACTS FOR INNOVATIVE SPACE: "BEST EFFORTS" AND THE EMERGENCE OF ENVIRONMENTAL SUSTAINABILITY PROVISIONS IN SPACE INDUSTRY CONTRACTS

Abstract

"Best efforts" provisions are commonly used by both private parties and entities like the European Space Agency (ESA) in various types of contracts, insurance policies, national licensing procedures and international agreements in the space industry. The contractual evolution of these clauses is a result of both technological and industrial advances, and the manner in which they have been interpreted in space-related case law like *Martin Marietta v. INTELSAT* and in other commercial sectors predominantly under English and US law.

Contract law as it applies to the space sector is an innovative area of law which operates in a continuously evolving technological and industrial landscape. This is true of well-established practices like "best efforts" provisions, and it is arguably true of other new, innovative clauses and contracts emerging in this sector, namely those relating to the sustainability of space activities. One example which bridges both "best efforts" and environmental-based provisions is that of large satellite constellations in low Earth orbit. On the one hand, these structures – requiring *inter alia* mass production of a large number of space objects, low cost, a frequent rate of launches and a high level of technical reliability– question how "efforts" provisions may be applied and enforced in contracts. On the other hand, these infrastructures query the manner in which sustainability – such as end-of-life disposal measures – will be governed contractually.

Against this background, this paper aims to address the following: how do contracting practices in the space sector evolve to meet the challenges of emerging markets and activities while at the same time seeking to ensure sustainability? Part I will critically assess "best efforts" clauses and variants like "reasonable efforts", their development in the space sector and how they may be conceivably used in the unique case of large satellite constellations. Part II will examine the emergence of sustainability-based contracting practices. Finally, in order to derive possible lessons to be learned, Part III will consider how other industries – such as construction and aviation – have evolved in their contracting practices.