

58th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
Joint IAF-IISL Session on the Legal Framework for Collaborative Space Activities (7-B3.8)

Author: Ms. Ntorina ANTONI
Swiss Space Systems (S3), Switzerland

Mr. Thomas AVANZI
Swiss Space Systems (S3), Switzerland

LEGAL ASPECTS OF COMMERCIAL SPACE ACTIVITIES PROVIDED BY AEROSPACE LAUNCH
SYSTEMS IN MULTI-JURISDICTIONAL CONTEXT

Abstract

After the introduction of the Pegasus air-launched rocket in 1990 by Orbital Sciences Corporation, nowadays more air-launch systems are under development by several aerospace companies, such as Virgin Galactic (LauncherOne), XCOR Aerospace (Lynx Mark III) and Swiss Space Systems (SOAR), for orbital or sub-orbital services. The commercialization of space industry with the participation of an increasing number of private actors conducting space activities through innovative launch systems depends on the certainty of the existing legal framework to face the new challenges. The issues that arise are pertinent to the mobility of this non-land based launch system compared to the traditional ones, an element which allows the conduct of the space activity of launching a space object by the joint participation of several launching States. The involvement of various jurisdictions and the lack of specific national laws to deal with commercial space activities in some countries might complicate the questions of international responsibility and liability in case of damage caused by a space object. This paper will assess the efficiency of the current body of international space law to face new commercial space developments, focusing on the application of Article VI of the Outer Space Treaty on state responsibility and the identification of the “appropriate State” to exercise authorization and continuing supervision, as well as Article I of the Liability Convention on the definition of the “launching State” and the allocation of liability in the case of a large number of participants in a non-traditional launch. Additionally, in search of the most optimal solution a parallel will be drawn to the case of Sea Launch, in which controversies have been noted and recommendations have been given in the application of the above notions. It will further analyze the “appropriate” and “launching State” definitions under existing national laws and it will conclude whether there is necessity for the adoption of additional national legal tools or if any initiative to deal with new realities shall be carried out at international level for more efficiency and legal certainty, in order to incentivize the private actors. The case study on which the above legal concepts will be exercised is the launch system of S3 which consists of the Sub-orbital Aircraft Reusable (SOAR) launched by an Airbus A3XX from different parts of the world with the purpose to deliver small satellites into low Earth orbit.