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Legal framework for collaborative space activities - New ways of launching (micro-launching) and large constellation microsats (Joint IAF/IISL session) (7-B3.8)

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SMALL SATELLITE ACTIVITIES AND LEGAL CHALLENGES REGARDING THE STATES  
RESPONSIBILITY

**Abstract**

High-tech advancements in size and performance of electronic devices have promoted the development of increasingly smaller satellites. The spread of small satellites technology has led to a new arena of scientific and economic possibilities. The low cost and improved performance of small satellites paved the way for a wide range of space missions with a lesser cost than larger satellite operations. Hence, public and private sectors in different countries have been encouraged to do small satellites activities. However, new Space requires new rules. Although there are international instruments that impact small satellite missions as well as large satellites such as 1967 Outer Space Treaty and 1972 Liability Convention, new applications or uses of small satellites in low orbit have made these instruments inappropriate for regulating these activities. States are answerable for any violations of international law and they would be obliged to make compensation for any compensable damage. One of the challenges is responsibility and liability of states for private sector in small satellites activities. The current international instruments have not explicitly recognized the specific rules for liability or responsibility of the private sector. Due to obscure concepts in space treaties and instruments, such as launching state, the space object and so on, and lack of crucial supervising of states towards their private sector such as registration and licensing small satellites in securing safety operations and management of scarce frequency resources, space international community confronts serious challenges on determining responsibility and liability. The non-determination of responsibility undermines space sustainability development. Hence, it is necessary for the international community to regulate Small Satellite activities. The international community needs a new turning point in legislation to determine and distinguish between the responsibility of states and the various actors in the use of small satellites. This article seeks to provide a new legal way for more collaboration and coordination between states individually and in the international communities such as International Telecommunication Union in regulating activities by conveying the responsibility of states to exploit small satellites in environmental protection and stable safety.