

56th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)  
Joint IAF/IISL Session on Legal Framework for Cooperative Space (7-B3.8)

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STATE RESPONSIBILITY AND LIABILITY FOR AN AIR LAUNCH UNDER INTERNATIONAL  
COOPERATION

**Abstract**

With a growing market for small satellite, an air launch attracts attention to launching states that prioritize three elements in space business: reliability, flexibility and responsiveness. The launch uses a combination of two vehicles, airplane and rocket/glider, to deliver small satellite in low earth orbit (LEO). Some of the current projects are pursued under international cooperation and highlight legal issues in clarifying the scope of state responsibility and liability for damage caused by vehicles/satellites during the two launch phases.

The critical difference between a ground-based launch and an air launch, particularly taken place in another states' air space, is in the number of the launching states that bear joint liability for the damage. While each state party is internationally responsible for national activities under Art. VI of the Outer Space Treaty, it also bears international liability if it fits in the definition of a launching state. Art. VII stipulates that each party that launches or procures the launching, as well as from whose territory or facility an object is launched, is internationally liable for damage on the earth, in air or in outer space. Those conditions are repeated in Art. I of the Liability Convention that aims for the prompt payment of a full and equitable measure of compensation to victims of such damage.

In this context, the definition of launching state has been already considered to draw a line between the launching state who bears liability and not substantially. However, this issue requires further clarification in the existing international/national space law and regulations over the project that exists.

Among the states involved in the air launch project on commercial basis, Japan started a RD program called Air Launch System Enabling Technology (ALSET) funded by Ministry of Economy, Trade, and Industry (METI) in 2009, with a team consisting of entities from Japan and U.S. Considering that the team already obtained Technical Assistance Agreement (TAA) from U.S. for a drop test in air space, this article examines how the launching states keep balance between international responsibility and liability in a joint project for an air launch.