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LEGAL STUDIES OF AIR LAUNCHING FOR COMMERCIAL SPACE TRANSPORTATION

Abstract

Air launching for commercial space transportation has attracted attention since 1990 when US succeeded to launch Pegasus and NavySat by Pegasus. The Pegasus rockets are the winged space booster vehicles used in an expendable launch system developed by Orbital Sciences Corporation, comprising of three main stages burning solid propellant. Its mother ship carrying rocket flies as a rocket-powered aircraft before leaving the atmosphere. In sum, air launching uses both rocket and aircraft to place small payloads into Earth orbits.

Although several spacefaring are already planning to access to the market, it is only US that provides and controls air launching by national legislations and FAA regulations. Considering that air launching is originally developed for military purposes, this study aims to examine whether the existing international legal instruments work in coordination to ensure safety and security in outer space activities when the other states enter into the market.