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Author: Mr. Takuya Wakimoto Space Policy Institute, George Washington University, United States, takuwaki1228@gwmail.gwu.edu

ACHIEVING TECHNICAL STANDARDS FOR COMMERCIAL HUMAN SPACEFLIGHTS: ANALOGIES FROM A HISTORY OF AVIATION

Abstract

Commercial human spaceflight will occur in the foreseeable future. Following the success of Virgin Galactic's first suborbital commercial human spaceflight in 2004, many believed that our generation will explore another frontier of technology. Despite technological advancements, however, the international law currently in place is not prepared to regulate and secure the safety of commercial human spaceflights. Previous legal studies mainly focused on finding ways to accommodate commercial human spaceflights under existing international laws, air law or space law regime. Nevertheless, more than fifty years of legal discussion have yet to yield a decisive solution. Against the odds, commercial human spaceflight will commence its business sooner or later. Some sort of international regulatory instrument would be necessary to secure a safe commercial human spaceflight operation alike to what the aviation community developed for international air transport. That mechanism is encompassed in the technical standards created by the International Civil Aviation Organization. In this respect, this study aims to analyze a way to generate internationally harmonized technical standards on commercial human spaceflight activities, with or without achieving an international law for commercial human spaceflights. First, the study analyzes potential markets of commercial human spaceflight and summarizes past legal discussion in order to understand the landscape of future aerospace activities. Then, I will review the history of the international aviation legal regime to find the implications of creating internationally harmonized technical standards for commercial human spaceflights. The study suggests to the international community to, first, forge a common ground across countries, secondly, qualitative (not quantitative) international technical standards should arise based on this mutual understanding.