IAF SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)

Commercial Spaceflight Safety and Emerging Issues (1)

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STREAMLINING FAA COMMERCIAL SPACE TRANSPORTATION REGULATIONS

Abstract

In May 2018, the President of the United States issued Space Policy Directive-2 that asked the U.S. Secretary of Transportation to review regulations that provide for and govern licensing of commercial space flight launch and re-entry. The directive asked the Secretary to consider: 1) "requiring a single license for all types of commercial space flight launch and re-entry operations"; and 2) "replacing prescriptive requirements in the commercial space flight launch and re-entry licensing process with performance-based criteria." DOT assigned the task of rapidly developing a Notice of Proposed Rulemaking (NPRM) to the Federal Aviation Administration's Office of Commercial Space Transportation (FAA/AST). An NPRM could be released in spring 2019. DOT/FAA has licensed over 300 launches since 1989.

The FAA plans to consolidate and revise many launch and reentry licensing requirements into a single regulation to streamline the licensing process, while protecting public safety and national security. Specifically, the FAA will consolidate and revise 14 Code of Federal Regulations Chapter III parts 415, 417, 431, and 435 into a single new regulatory part. The new part will enable safety objectives to be achieved for the launch of suborbital and orbital expendable and reusable launch vehicles, and the reentry of reentry vehicles, and will leave design or operational solutions up to the applicant.

The new regulation will also enable flexible timeframes, redefine when launch begins, and allow the space industry to seek a single license to launch from multiple sites. The overall goal is to simplify the licensing process for launch and reentry activity, enable novel operations, and reduce costs.

This paper will summarize the extensive changes to FAA regulations, address the shift to a more performance-based regulatory framework, and discuss the philosophies used to strike a balance between reducing time spent by industry and government on applications and evaluations while maintaining the U.S. government's robust safety protections for public. The paper may be useful to countries that are considering new national frameworks for commercial space transportation, including hosting U.S. vehicles in their country that would be licensed by the FAA.