

IAF SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)
Commercial Spaceflight Safety and Emerging Issues (1)

Author: Ms. Jessica Deihl
NASA, United States

Ms. Jodi Goldberg
United States

UNIFYING THE INTERNATIONAL REGULATORY FRAMEWORK FOR COMMERCIAL LAUNCH
SITES

Abstract

Year after year, more commercial launch providers successfully enter the market and are able to steadily increase the cadence at which they provide launch services to customers. What used to be a rare occurrence, is rapidly becoming a weekly, and soon to be daily, activity. However, the infrastructure needed to support this rapid growth in the commercial launch market has not kept pace. The selection of a launch site by a provider requires a substantial investment by the provider to custom build their own launch pad infrastructure. As a result, many commercial launch providers base their operations out of singular or self-owned spaceports and launch pad facilities, each with their own operational and regulatory requirements.

In order for operators to eventually move between facilities—or hope to provide point-to-point travel—there needs to be uniformity as to how we regulate operations at spaceports and launch facilities, both domestically and abroad. Without a normative regulatory framework to govern spaceports around the world, the launch transportation sector will not be able to develop to its fullest potential. But how do you start to regulate the operational infrastructure of a nascent industry when flexibility is the essential component to innovation? How do you ensure safety without slowing progress?

Regulatory frameworks are about finding the necessary balance between providing the harmonization and predictability needed to create certainty and providing enough flexibility to facilitate growth and innovation in the industry to be regulated. This paper proposes to do a deep dive analysis into the growing infrastructure needs of the maturing global commercial launch market to evaluate how existing regulations governing commercial launch facilities are keeping pace (or not). Based on these findings, we will explore solutions for harmonizing regulations across launch facilities, examining other industry practices, and proposing a starting point for a potential regulatory regime for launch infrastructure.