
Focus Issue: Implementing Mission Authorization

Relevant to:

The White House

Congress

Department of Transportation

Federal Aviation Administration

National Oceanic and Atmospheric Administration

Office of Commercial Space Transportation

Office of Space Commerce



SECURE
WORLD
FOUNDATION



Focus Issue: Implementing Mission Authorization

In the United States, a patchwork of agencies share responsibility for licensing and overseeing commercial space activities. As commercial space activities continue to expand in scope, this patchwork leads to gaps and inefficiencies in the current oversight framework to enable novel commercial space activities. A concept known as “mission authorization” has been suggested to address these gaps and inefficiencies. It is in the interests of the United States, and the development of the U.S. space industry to implement a mission authorization framework, led by the Office of Space Commerce.

The U.S. at night, from space. *Image credit: NASA.*

Background

The United States implements its oversight of private sector space activities through a series of licensing authorities. The Federal Aviation Authority’s Office of Commercial Space Transportation (FAA/AST) licenses all commercial space launch activities and performs a limited review of payloads headed to outer space during launch. It also licenses re-entry of commercial spacecraft. If a spacecraft will be taking pictures of the Earth, a remote sensing license is also required from the National Oceanic and Atmospheric Administration (NOAA). The Federal Communications Commission (FCC) licenses all commercial use of radio frequencies, an essential capability in all space communications.

The commercial space sector is in the midst of an expansion in scope and capabilities, including new actors, new application areas, and new business models. Examples include in-space servicing, assembly, and manufacturing (ISAM) activities;

commercial lunar activities; and commercial space stations and low Earth orbit (LEO) destinations. Many of these novel capabilities and services do not clearly align with these existing licensing and oversight practices, which have primarily been designed for space launch, satellite communications, and commercial remote sensing. This leads to inefficiencies in processing and gaps in authority and legal certainty for commercial space operators. Addressing these shortcomings has been a policy goal of several U.S. presidential administrations and has been a need supported by a significant portion of the U.S. commercial space industry.

In 2016, the Obama administration proposed a concept called “mission authorization,” which would provide a process for licensing novel commercial space activities in response to a Congressional request to address this gap. Mission authorization was subsequently endorsed by the first Trump administration as part of the 2020 National Space Policy and assigned to the Department of Commerce



(DOC). However, neither the Obama nor the first Trump administrations developed the specifics of how to implement mission authorization. During the Biden administration, the National Space Council developed a proposal for implementing mission authorization, building on elements proposed by both the Obama and the first Trump administrations. The House of Representatives also introduced a different proposed approach to implementing licensing for novel commercial space activities. Neither proposal was enacted.

Current Policy and Gaps or Shortcomings

The continued gap around licensing and oversight of novel space activities creates uncertainty for private sector operators and leads to inefficiency in government processes. It is in the interests of the United States and the development of its space industry to implement a mission authorization process that provides clarity to novel commercial space activities while also ensuring norms and oversight practices are established to protect and promote stability and safety in the operating domain on which these businesses rely.

The current lack of clarity around licensing practices for novel commercial space activities poses a number of challenges to the development of the U.S. space industry.

“This regulatory uncertainty poses risks to investor and market confidence, as well as introduces possible delays into business plan timelines.”

These include:

- Some commercial space activities require multiple licenses from different agencies; **operators may have to approach multiple regulatory agencies**, creating administrative and cost burdens for those commercial operators, particularly for new operators.
- While regulators overlap in some areas, **there is a clear absence of authority in other areas**. This gap prevents commercial actors from knowing which regulator to approach for permission to undertake advanced, pioneering activities on orbit or on a celestial body. This regulatory uncertainty poses risks to investor and market confidence, as well as introduces possible delays into business plan timelines.
- As commercial space activities increase in number and complexity, the ability of regulatory agencies to keep pace with the increasing number of applications is being challenged. **Budgets, staffing, and capacity of regulatory authorities have not kept pace with the amount of activity.** This lack of resources creates inefficient processes and has a direct negative impact on enabling commercial activity. In order for regulators to operate effectively and efficiently, appropriate resourcing must be provided.

Implementation of a mission authorization framework is of key importance to addressing these challenges. •



Policy Recommendations

→ Implement mission authorization [through an interagency process](#), with OSC as the lead.

Acting as the lead agency for the authorization and supervision of private sector space activities, OSC should serve as a clearinghouse or tracking point for private sector space activities seeking government approval. This will provide more clarity for commercial companies who may not otherwise know who to go to in the U.S. government for a license and also help OSC better understand the breadth and scope of private sector space activities to inform its mission to promote such activities.

→ The OSC should [act as the lead agency](#) for the authorization and supervision of private sector space activities.

A clear and certain oversight process should be implemented with one agency designated as a lead to close the gap in licensing of commercial space operations and ensure consistency across the U.S. government. This agency should be the OSC within the Department of Commerce and should be elevated out of NOAA to an office within the Office of the Secretary of Commerce. To make this process as effective as possible, the following elements should be included:

- For all activities not covered under existing authorities at FCC/FAA/NOAA, OSC should serve as the interface point for licensee applicants for tracking applications and processing times. A clear timeline should be established for licensing processes, and the OSC should be the point of contact for applicants seeking updates on the expected processing timelines for their applications. Where interagency coordination is required in the licensing process, this clearinghouse function would provide administrative support for that coordination and serve as a single point of information for applicants. Establishing OSC as such a clearinghouse would improve the competitiveness of the U.S. space industry by reducing the challenges companies face in identifying and interfacing with the appropriate licensing authorities.
- Mission authorization should apply to the mission conducted by a spacecraft over its lifetime as a whole (as opposed to requiring separate approvals or processes for each individual part of a mission). It would effectively serve as a “license to operate” within certain pre-approved parameters, that are defined in the initial license.
- In the interests of promoting a safe operating environment for all commercial space businesses, licensing conditions should ensure that basic space safety requirements are met (including registration with SSA service providers and compliance with space debris mitigation guidelines) and should seek to ensure uniformity in application of these requirements to all operators of the same type of mission. Such uniformity is essential to ensure individual operators are not unfairly advantaged or disadvantaged by the authorization process. Licenses should be based on a presumption of approval, with the burden on the government to describe rationale for denial, in such cases. Attention should be given to long-term externalities of the licensing decisions.