

# Restructuring Commercial Space Regulation

## Introduction and Background

Commercial space has been an enabler for U.S. leadership in technology innovation and, given the right regulatory framework, it has the potential to enable significant future economic growth. Recent new capabilities, applications and pace of commercial space activity are creating challenges for the existing U.S. regulatory framework for space activities. To ensure continued U.S. leadership in the dynamic commercial space market – with many exciting emerging technologies and new commercial service markets – the existing U.S. regulatory framework requires reform and restructuring. Regulatory processes defined by consistency, transparency and timeliness are crucial to lowering costs and risk, and facilitating new and growing commercial space businesses. Prioritizing and addressing the current commercial space industry’s need for regulatory certainty is essential to our commercial space competitiveness.

**In addition to supporting regulatory reforms, AIA and its member companies believe that the commercial space regulatory agencies must be properly resourced to avoid becoming a bottleneck to new commerce. More resources, however, will only help if the regulatory framework itself is organized efficiently. Although the proposed House legislation, H.R. 2809 – *American Space Commerce Free Enterprise Act of 2017* – makes sweeping changes to address perceived organizational inefficiencies in the Department of Commerce’s Office of Space Commerce and NOAA’s Remote Sensing licensing, AIA does not agree that new institutional jurisdictions are needed. Instead, existing regulatory entities should be given the authority and additional resources necessary to build on their fundamentally successful processes.**

The current regulatory framework can be significantly improved by acting to ensure a more transparent certification process for spacecraft operations and remote-sensing systems. This reform would enable better long term planning, thus simplifying industry development efforts, while minimizing last-minute regulatory burdens. Such a change would be mutually beneficial to both industry and government, improving our nation’s commercial space competitive advantage.

## Recommendations

AIA recommends reforming commercial space regulation and oversight by leveraging the success of existing agencies for the commercial space industry, and consolidating regulatory authority – including any new authorities for authorizing new nongovernmental space activities – within the Department of Transportation (DOT). To implement this, we recommend:

- Change the reporting relationship of the Office of Space Transportation (AST) within the Department of Transportation to either:
  - A direct report within the Office of the Secretary, *or*
  - The core of a new and distinct Space Transportation Mode equivalent to those that currently exist for Aviation, Railroads, and Maritime modes.
- Create a responsive, transparent, and timely certification process for spacecraft and remote-sensing systems. The checks and balances of this process should incentivize both timely sharing of commercial system data with regulators and prompt determination of approval by regulators, with strong provisions for both rapid appeal and emergency certification.
- Developing a process to de-conflict public and private space activity to maximize the utilization of the limited, shared resource of spectrum and orbits.
- Ensure adequate staffing and priority ranking of these regulations to create a process that can be held up as a global standard.

## The Outer Space Treaty

The Outer Space Treaty of 1967 (OST) continues to provide a strong framework for all space activities, commercial or otherwise. Of importance is Article VI which states: “the activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty.” This treaty commitment, as well as that of the 1972 Liability Convention, (which requires that damage claims must be brought by state against a state), is the primary reason why the U.S. government undertakes licensing and regulation of private sector space activities. AST, Federal Communications Commission (FCC), and other departments and agencies have orchestrated a successful fifty-year history of regulatory precedent, case law and contracts that are vital to the industry’s health as literally tens of billions in investments are tied to OST’s principles. Opening this treaty for renegotiation could take literally decades of effort, and would subject its principles and provisions to manipulation by other international players with competing interests. AIA recommends against re-opening the OST.

## The Office of Space Transportation

AIA believes that the most effective approach to successful regulatory restructuring would be to move AST out of the FAA and into the DOT. In its expanded role, AST would act as a centralizing body, consolidating additional responsibilities in the commercial space regulatory regime and absorbing new authority for authorizing nongovernmental space activities.

This reorganization could be structured in two different ways:

- Establish AST as an office under the Secretary of Transportation, thereby creating a clear delineation of focus for AST’s unique responsibilities; or
- Create a new organization from the current Commercial Space Transportation office – a new “Space Administration” organization that would be established parallel to the FAA, Maritime Administration, Railroad Administration, and others – recognizing space as a new and growing domain for transportation and commerce. Such an approach would resolve many of the outstanding issues in the current regulatory framework.

Either of these two choices should make the need for more resources to oversee current and developing commercial space activities more visible. This approach also eases the already large burden placed on the FAA, which is implementing the Next Gen Air Traffic Control system, working to integrate Unmanned Aircraft Systems in to the nation’s airspace, and may soon undergo significant change if air traffic control privatization is implemented. This centralization maximizes the efficiencies gained and eliminates the issues of ad-hoc interagency communication among the FAA, Department of Commerce, FCC, and others. AST would instead be the central point of contact that would reach out to each of these agencies. Maximizing these strengths, the centralization of agency responsibilities in this restructuring would result in a more streamlined and clear-cut process for the benefit of both industry and the taxpayer.

## Concerns with the American Space Commerce Free Enterprise Act of 2017

AIA again stresses the importance of using AST as a central, consolidating body for the regulation of commercial space. In doing so, the Federal government will head off numerous regulatory issues as well as directly address challenges to current and future growth. Through the process of consolidation and giving AST the fuller authority that we recommend, new regulatory processes better suited to the commercial space industry can be developed. These improvements range from singular authority, streamlined approvals with clear decision timetables, to dealing with emerging and future regulatory challenges as they relate to emerging technologies.

While the Outer Space Treaty has not been an obstacle to developing the current, vibrant private sector, how the U.S. implements the treaty presents challenges going forward – especially as new commercial businesses come to market, most of which are U.S. firms. Regulations that assure U.S. private sector actors do not violate U.S. obligations, but that are not so onerous as to stifle innovation in space activities, and that set a precedent for norms of international behavior, are important to establish. The U.S. historically sets the global standard for space.

While we appreciate the sincere interest and enthusiasm of the legislation's authors and supporters, AIA fears that the American Space Commerce Free Enterprise Act of 2017 could inadvertently harm the development of new space enterprises. Among our concerns are the following:

- The bill would establish a single new authority for nongovernmental space activities in the Department of Commerce. This would create institutional overlap with the AST office, which has for years exercised both a diligent regulatory role to protect the public and meet Outer Space Treaty obligations, while also supporting the development of an increasing number of new launch and re-entry capabilities and promoting commercial development. The same institutional overlap concern may also apply to the FCC which has, for decades, effectively regulated space spectrum applications, licensed orbital communications applications, and assigned geosynchronous satellite locations allocated to the U.S. At a minimum, by establishing a new regulatory authority in the Commerce Department, the bill creates a divide in space regulation. AIA believes this will only serve to increase bureaucracy and complicate the regulatory process – potentially increasing delays to receive authority across institutional jurisdictions
- To mitigate the risk of institutional delays, the bill requires the new Commerce Department entity to respond to an application for a proposed space activity within 90 days, or it will be automatically approved. This may not allow enough time for the responsible authorities to make an informed decision. The proposed certification process may also reward applicants for “running out the clock” by slowly responding to questions from the government. It is important to have a responsible, transparent and timely process that adequately considers all stakeholders while allowing competition – not just a system predisposed to reward first movers. AIA recommends adopting a method similar to the current AST review process. In this process, there is a preliminary review to ensure all information needed for a decision has been received and, once complete, then begin the formal application process. After AST determines that the application is deemed “sufficiently complete,” a maximum 180-day review period is triggered and a notification is sent to the applicant. At the end of that 180-day period, the applicant is given a clear approval or rejection; and, if rejected, the reasoning is provided with any areas of deficiency noted.
- The bill as it stands provides no mechanisms to deal with the need for priority emergency certification or re-certification. In the event of an emergency scenario, in which commercial space resources are ready and able to be deployed to address clear needs, the ability to certify these resources for deployment in a timely fashion is non-existent. In addition, having the ability to re-certify certain aspects, such as satellite imaging aperture usage over the Gulf Coast, would enable existing commercial resources to be utilized in a way that maximizes aid rendered to disaster relief and mitigation efforts.
- Under the bill's current definition of a U.S. entity, as it relates to commercial space certification, there is no check on whether the applicant has equity regarding U.S. interests. Given U.S. obligations for non-governmental entities operating under their flag, pursuant to the Outer Space Treaty, it would be irresponsible not to ensure all those operating under U.S. certification have a genuine stake in overall U.S. involvement.