

**STATEMENT OF KELVIN B. COLEMAN  
ASSOCIATE ADMINISTRATOR, COMMERCIAL SPACE TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
HEARING BEFORE THE UNITED STATES HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY  
SUBCOMMITTEE ON SPACE AND AERONAUTICS  
RISKS AND REWARDS: ENCOURAGING COMMERCIAL SPACE INNOVATION  
WHILE MAINTAINING PUBLIC SAFETY  
SEPTEMBER 10, 2024**

Chair Lucas, Chair Babin, Ranking Member Lofgren, Ranking Member Sorensen, and members of the subcommittee, thank you for the opportunity to be here today to discuss the important role the Department of Transportation (DOT) and the Federal Aviation Administration (FAA) have in enabling safe commercial space transportation. As the regulator of commercial space transportation, we are committed to ensuring the safety and economic competitiveness of the U.S. commercial space transportation industry. Maintaining our safety record is a key to the uninterrupted growth of this industry that has become an important economic engine for our nation. A safe industry is a successful industry.

U.S. commercial space capabilities and innovation are vitally important to our Nation. Space exploration has an impact on our everyday lives in countless ways and many benefits are yet to be realized. The commercial space transportation industry continues to develop new technologies that hold tremendous potential for further advancements that will assure our Nation's access to space, take us back to the moon and to other interplanetary destinations, connect global communities, better serve the planet, and improve the daily lives of our citizens. Commercial space activity worldwide increases every day, resulting in a half-trillion dollar global space economy that will nearly double in the next decade. The United States contributes roughly half of all commercial space activity, and the U.S. commercial space industry will continue to be an extremely important contributor to the growth of this space economy.

I'm here before you today to discuss how our office drives the mission to enable safe space transportation and our ongoing efforts to streamline and improve our regulatory framework and processes.

### **Overview of the Office of Commercial Space Transportation and its Responsibilities**

The Secretary of Transportation (Secretary), in accordance with Title 51 of the United States Code, regulates and oversees U.S. commercial space transportation operations, which include launch and reentry operations worldwide, the operation of launch and reentry sites, and human space flight missions. This authority has been delegated by the Secretary to the FAA, and I have led the FAA's Office of Commercial Space Transportation (AST) as the Associate Administrator since September 2022. Our office carries out these authorities to protect public health and safety, the safety of property, and the national security and foreign policy interests of the United States. In addition to these important responsibilities, our office is also responsible for encouraging, facilitating, and promoting commercial space launches and reentries by the private sector and facilitating the strengthening and expansion of U.S. space transportation infrastructure. To put it simply, the U.S. relies on our office to ensure public safety while enabling safe commercial space transportation, and we recognize and embrace the central role the DOT and the FAA play in ensuring the U.S. continues to be the global leader in space.

### **Licensing and Permitting of Commercial Space Transportation Operations**

Commercial space transportation operations are increasing in complexity, diversity, and frequency, creating a significant growth in demand for AST's licensing and permitting services and our resulting safety oversight.

Since 1989, the FAA has licensed or permitted more than 800 commercial space transportation operations, more than any other country in the world by far. To put the growth of

the U.S. commercial space transportation sector into perspective, this fiscal year, AST has overseen the safety of 130 launch and reentry operations, which is more than triple the number of licensed operations that occurred in fiscal year 2020—and the year isn't over yet. Additionally, we made 150% more application determinations in fiscal year 2024 as compared to fiscal year 2020. The catalyst for this increase is that we have seen steady growth of licensed vehicle operators and now have 26 licensed commercial launch and reentry operators.

The FAA has leveraged its licensing and regulatory capabilities and other various programs and initiatives in a manner that has resulted in an impressive safety record for this rapidly growing industry. No FAA-licensed launch or reentry operation has ever resulted in a fatality or injury to a member of the public, nor has there been any significant public property damage. I've encouraged our team to learn from every operation and to identify potential risks so that potential hazards and vulnerabilities become smaller and fewer. Looking forward, we expect the total number of licensed commercial space operations to double by fiscal year 2026. The FAA is committed to meeting this increased demand.

The safety record is the result of our licensing and permitting process, consisting of three phases: pre-application consultation, application evaluation, and operations and compliance monitoring. Prior to submitting an application, license and permit applicants are required to consult with the FAA to discuss the application process and other information relevant to the FAA's licensing or permitting determination. Pre-application consultation marks the formal beginning of a relationship between AST and an applicant, and this phase of the licensing and permitting process ends when the applicant formally submits an application that is accepted by AST for evaluation. AST is required by statute to make a licensing determination within 180 days from license application acceptance and a permit determination within 120 days from

permit application acceptance. During the application evaluation phase, AST reviews an application for compliance with applicable regulations and determines whether to issue an authorization (i.e., license or permit) to the applicant. The following reviews are conducted as part of an evaluation: a policy review, a payload review, a safety review, a financial responsibility determination, and an environmental review. Further, once AST issues a license or permit, it must ensure that the licensee or permittee complies with the governing statute, regulations, representations made in the application, and the terms and conditions of the license or permit. After a license or permit has been issued, operators frequently make changes to the vehicle configuration, launch procedures, or operations that may require the operator to apply for a license or permit modification. AST must evaluate all such changes in making determinations to approve or deny any modification to a license or permit. An applicant may also request a waiver(s) to regulatory provisions, and AST must evaluate and respond to each waiver petition to determine if it can be granted in the public's interest and will not jeopardize public health and safety, the safety of property, or any national security or foreign policy interest of the United States. In the event there is a launch- or reentry-related mishap, AST or the National Transportation Safety Board oversees the mishap investigation.

We understand the importance of making timely licensing and permitting determinations and continue to make it our priority— over the last 11 years, we have issued 49 license determinations, averaging 151 days to issue a new license. We have taken action to improve our internal efficiency, which includes bolstering our staffing to handle licensing, permitting, and inspections; improved communication with industry that is clear, concise, specific, and actionable; wider availability through office hours and workshops; and investments in the development of new tools that will improve license application and processing efficiency.

We have also highlighted to industry a number of steps they can take to speed up license and permit determinations. We continue to encourage operators to ensure their licensing applications speak directly to our requirements at the outset, with clear narratives that spell out their safety case—exactly how their methodologies support the means of compliance. Additionally, it is important that operators minimize amendments and go-backs after their application review has started. When operators require significant changes to their applications, it often leads to significant and additional delays, as our experts have to verify and validate the changed data and its effects on other areas of the application. When a quality application is provided by an applicant at the start, a more expeditious approval is possible. The burden of proof of compliance rests with the operator, and with the increased demands placed on our office, we need operators to submit well-reasoned applications that clearly spell out means of compliance to make the most efficient and effective use of our resources.

The FAA's impressive safety record and ability to meet the needs of this rapidly growing industry are in large part because of the incredible staff that we have in AST. FAA-licensed commercial operations have grown in the last decade by over 900%. Thanks to recent support from Congress, utilizing various hiring and recruiting authorities, we have been able to increase our total staff size to 150 staff members, which allows us to address some of the growing demands that have been placed on our office. The President's fiscal year 2025 Budget Request continues this support by providing funding for the agency to hire additional staff to conduct authorization evaluations, safety analyses, and safety inspections.

### **FAA's Commercial Space Regulatory Framework**

AST has embraced a mindset and methods to become better, smarter, more agile, and more efficient—always in ways that won't compromise safety. In December 2020, the FAA

published a final rule to overhaul our launch and reentry regulations and consolidate, update, and streamline all launch and reentry regulations into a single performance-based part, which is found in Title 14, Code of Federal Regulations, Part 450 (Part 450). This rule replaced prescriptive public safety requirements with performance-based requirements to provide more flexibility, allow more methods of compliance, and clear the path for innovation. We designed Part 450 to allow a commercial space operator to obtain a license for a portfolio of launch and reentry operations, which allows for different vehicle configurations, mission profiles, and even multiple sites under one license. The rule was developed to reduce the number of times an operator would need to come to the FAA for an approval and reduce the need to process waivers, improve regulatory clarity, and relieve administrative and cost burdens on industry and the FAA. Another benefit of Part 450 is that it enables an operator to streamline and include negotiated timelines for certain reporting requirements, which allows operators to design the reporting component of their program to fit their specific needs within a safe capacity.

Additionally, Part 450 enables coordination between the FAA and our Federal range partners, including the National Aeronautics and Space Administration and the Department of Defense, on ground safety at Federal launch sites to eliminate gaps and duplication in oversight. By March 10, 2026, all launch and reentry licenses issued by the FAA under legacy regulations will no longer be valid, and launch and reentry vehicle operators must be in compliance with Part 450. We are encouraging industry to apply under Part 450 as soon as possible.

Currently, operators with proven launch vehicles and well-established concepts of operations, who could transition the soonest and benefit the most from Part 450, aren't yet using it for their programs. New operators have begun using Part 450, but not to its fullest extent. As we approach these next 18 months, through various initiatives, AST is working to ensure

industry has a full understanding of how to achieve compliance with Part 450 and how to take advantage of its intended benefits. To facilitate industry transition to Part 450, we have provided an assortment of aids, including license application checklists, advisory circulars, as well as virtual tutorials, office hours, and workshops. Part 450 will move us in the right direction toward efficiency and workload reductions for both the government and industry without compromising safety. As we look to the future, we will also continue to consider opportunities to improve the rule to better meet its objectives and identify other aids and resources to facilitate industry transition to Part 450. Additionally, we are also working to utilize advanced tools to adapt to the changing landscape. We are developing a Licensing Electronic Application Portal (LEAP), which will be used to accept, modify, exchange, and approve licensing materials under Part 450. LEAP is expected to enhance our ability to identify, track, and quickly resolve questions and issues both internally and externally with applicants. LEAP will streamline the licensing process for new applicants, provide more transparency into the process, and guide applicants in a step-by-step process.

## **Conclusion**

I once again would like to reiterate the importance of the work we do at the FAA to enable safe space transportation. We have undertaken significant efforts to update our regulations and processes to create more capacity, and we continue to encourage legacy operators to move to the more efficient licensing process established under Part 450, well before they are required to do so. The Department of Transportation, the Federal Aviation Administration, and the Office of Commercial Space Transportation, are here to ensure the U.S. continues to be the global leader in space by leading safely. We know the consequences can be enormous if we get it wrong—consequences for our lives, our planet, industry, and more. That's

why we remain committed to safety as our North Star. We will continue leveraging our licensing and regulatory capabilities, as well as other programs and initiatives, to enable the success of the U.S. commercial space transportation industry and ensure the U.S. remains the preeminent commercial space country of choice. Thank you again for the opportunity to discuss the important role DOT and the FAA play in enabling safe commercial space transportation. This concludes my testimony, and I will be glad to answer any questions from the Committee.