

National Transportation Safety Board

Office of the Chair

Washington, DC 20594



May 5, 2022

The Honorable Frank Lucas
Ranking Member
US House of Representatives
Committee on Science, Space, and
Technology
2405 Rayburn House Office Bldg.
Washington, DC 20515

Dear Ranking Member Lucas:

Thank you for your letter to President Biden regarding the National Transportation Safety Board's (NTSB's) notice of proposed rulemaking (NPRM) for commercial space investigations.

The commercial space industry is continuing to grow at an accelerated rate. The onset and continued expected growth of commercial human space flight makes it necessary to clarify the circumstances under which the NTSB would initiate an investigation of a commercial space mishap, accident, or serious incident. We believe the rulemaking process providing for public comment is the most transparent way to update these processes now and for any future updates as the industry continues to develop.

The Rulemaking

The NTSB is continuing to review the comments received on our *Notice of Proposed Rulemaking for Commercial Space Investigations*, which we published in the *Federal Register* on November 17, 2021.

To better inform our ongoing comment review process, the NTSB is meeting with stakeholders, including the Federal Aviation Administration (FAA) and representatives of the private sector, to seek clarity on the concerns that stakeholders have identified in their comments. We are seriously considering all the comments we received, and we anticipate proceeding to a supplemental NPRM as our next step, which will be available for public comment.

In addition, the NTSB is actively engaged in the Quad Agency Working Group (Quad Chair) to ensure productive working relationships with the other US government agencies involved in commercial space launch and reentry activities—the FAA, US Air Force, and National Aeronautics and Space Administration (NASA). These

organizations were fully aware that we would be issuing the NPRM regarding notification procedures for commercial space launch and reentry investigations.

History and Staffing Capabilities

The NTSB has worked hard over the past 30 years to ensure that we are prepared to investigate any commercial space accident. NTSB investigations support the growth of the industry by ensuring that lessons learned will continually improve safety, that investigations are being conducted impartially, and that public reports are issued when investigations conclude.

Commercial space accident investigations are led by the NTSB's Air Carrier and Space Investigations Division. That division is headed by a chief and currently includes six senior accident investigators. In addition, over 70 investigators in other divisions are available to participate in commercial space accident investigations, including specialists in operational factors, aerospace engineering, human performance, survival factors, and vehicle performance, as well as medical officers and staff from our materials and vehicle recorders laboratories. We also have a chief technical advisor who advises on all matters concerning space and advanced aerospace transportation investigations. Our commercial space investigations use the same party process that we use in all our investigations.¹ As a result, any investigation would also include the active participation of the FAA, other agencies, and the operators, as appropriate.

Memorandum of Agreement

The NTSB and the FAA have had a Memorandum of Agreement (MOA) addressing commercial space transportation since 1989. The most recent update to the MOA was signed in 2000; however, it is outdated and did not anticipate commercial human spaceflight. For several years, the NTSB has been attempting to engage with the FAA to update and modernize this agreement. On April 21, 2022, at my request, we met with the deputy secretary of the US Department of Transportation and the FAA, and we are hopeful that this meeting has begun the necessary work between the agencies that will result in an updated MOA. Our next meeting is scheduled for May 11, 2022. We anticipate that the MOA, in combination with the eventual NPRM, will clarify the roles and responsibilities of each agency, providing a framework for operators when an investigation is necessary.

¹ The NTSB invites various qualified and interested organizations whose employees, functions, activities, or products were involved in an accident or incident, and who can provide suitable qualified technical personnel actively to assist in the investigation, to participate as parties to the fact-finding phase of the NTSB investigation.

Current Law

Under current law,² the NTSB has the authority to investigate commercial space accidents. Appendix H of the 2000 MOA with the FAA references the NTSB's authority to investigate any commercial space launch accident under our statute.

Also under current law, there are two sets of regulations that govern launches and reentries. An operator may choose under which set to operate. Through 2026, operators may choose to follow 14 CFR § 417.11 and 14 CFR § 431.45 which specify that operators must comply with NTSB investigations. Further, the 2000 MOA with the FAA directs that the NTSB will investigate certain commercial space launch accidents or those accidents that cause property damage not associated with the launch that exceeds a \$25,000 threshold. Of course, as noted above, this MOA did not envision human commercial space flight and was intended to address space launch activities that were exclusively for cargo. Last, FAA Advisory Circular No. 450.173-1 (August 12, 2021) concerning Part 450, "Mishap Plan—Reporting, Response, and Investigation Requirements," section 10.4, states that "based on the severity and consequences of the event, the FAA or NTSB may initiate an investigation to determine root or probable cause and make recommendations for avoiding a recurrence of the event."

The NTSB's investigations support the growth of the commercial space flight industry by ensuring that lessons learned will continually improve safety, investigations are being conducted impartially, and reports are issued publicly when investigations conclude. With rare exception, NTSB investigations are the only independent investigations of commercial space accidents.³ The ability for the NTSB to independently conduct such investigations and to make recommendations to industry and the regulator is critical to helping improve the safety of, and maintaining public confidence in, this evolving industry.

I look forward to continuing to work with you, your congressional colleagues, and our safety partners at the FAA to advance the safety of commercial space transportation.

Sincerely,

Jennifer L. Homendy
Chair

² 49 *USC* 1131(a)(1)(F)

³ In the event of a commercial launch or reentry accident involving the NASA Commercial Crew Program, the President would establish a Human Spaceflight Independent Investigation Commission (51 *USC* Chapter 707).