

# National Transportation Safety Board

Office of the Chair

Washington, DC 20594



July 27, 2022

The Honorable Rick Larsen  
Chairman  
Subcommittee on Aviation  
Committee on Transportation and Infrastructure  
United States House of Representatives  
Washington, DC 20515

The Honorable Garret Graves  
Ranking Member  
Subcommittee on Aviation  
Committee on Transportation and Infrastructure  
United States House of Representatives  
Washington, DC 20515

Dear Chairman Larsen and Ranking Member Graves:

As Chair of the National Transportation Safety Board (NTSB), I want to thank you for your leadership to help ensure the safety of general aviation, and respectfully submit this letter for the record regarding the July 13, 2022, hearing, "The State of General Aviation."

As you know, the NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—highway, rail, marine, pipeline, and commercial space. We determine the probable cause of the events we investigate and issue safety recommendations aimed at preventing future occurrences.

The vast majority of our investigations involve general aviation accidents, and those investigations have contributed to the improved safety of general aviation over the years. In fact, since 2010, 96 percent of all NTSB investigations were in the aviation mode, and of those, 94 percent were in general aviation, meaning that general aviation investigations account for roughly 90 percent of our investigations. In 2020, our Office of Aviation Safety opened 1,139 investigations; 1,085 were in general aviation.<sup>1</sup>

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<sup>1</sup> 2021 data is not yet available.

## Recent Safety Trends in General Aviation

Since 2001, the rate of fatal accidents in general aviation operations has generally trended downward. In 2001, the fatal accident rate per 100,000 flight hours was 1.274, and although it has been as high as 1.381 (in 2005) and as low as .935 (in 2017) over the last 20 years, in 2020, the rate was 1.049. Although the safety of general aviation has improved in the last decade, we do see areas where additional effort is needed.

For example, in March 2021, we released a report discussing the ongoing safety issues associated with revenue passenger-carrying operations conducted under Title 14 Code of Federal Regulations (*CFR*) Part 91 for general aviation.<sup>2</sup> These operations include the following:

- certain nonstop commercial air tour flights
- sightseeing flights conducted in helicopters and hot air balloons
- nonstop intentional parachute jump flights
- living history flight experience sightseeing flights
- glider sightseeing flights
- air combat/extreme aerobatic experience flights and tour flights conducted under the premise of student instruction or training flights

The NTSB has long been concerned that these operations, which carry thousands of passengers for compensation or hire each year, are not held to the same maintenance, airworthiness, and operational standards as air carrier, commuter, and on-demand operations. Members of the public who pay to participate in Part 91 revenue passenger-carrying activities are likely unaware that these operations have less stringent requirements than other commercial aviation operations. Although Part 91 revenue passenger-carrying operations are diverse, the need for greater safety requirements and more comprehensive oversight applies to all of these operations. As a result of our Part 91 investigation, we made six new recommendations and reiterated four previous recommendations to the Federal Aviation Administration (FAA).

These recommendations were derived from numerous investigations NTSB investigated between 2016 and 2019, including accidents in Honolulu, Hawaii; Lockhart, Texas; Mokuleia, Hawaii; Windsor Locks, Connecticut; Morrisville, Vermont; Four Corners, California; Poipu, Hawaii; and New York, New York. These eight

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<sup>2</sup> NTSB. [Enhance Safety of Revenue Passenger-Carrying Operations Conducted Under Title 14 Code of Federal Regulations Part 91](#). Washington, DC: NTSB. AAR 21/03.

accidents alone resulted in 45 fatalities, 6 serious injuries, and 4 minor injuries, and the NTSB remains concerned that the safety issues identified in each of these accidents continue to occur at multiple Part 91 revenue passenger-carrying operators; as a result, safety improvements are needed to avoid placing future passengers at risk. Our recommendations and their statuses are enclosed.

In brief, we identified four categories of safety deficiencies that still must be addressed, which we wanted to bring to your attention as you consider legislation to reauthorize the FAA.

- *The Need for an Appropriate Framework for Part 91 Revenue Passenger-Carrying Operations.* The operating rules for Part 91 general aviation, which include revenue passenger-carrying operations, do not require operating certificates, operations specifications, FAA-accepted general operations manuals, FAA-approved training programs, or FAA-approved maintenance programs, all of which are required for Part 135 commuter and on-demand operations, including most commercial air tours. Because Part 91 revenue passenger-carrying operators are not required to have initial and recurrent pilot training programs, the operators have no formal method to determine if pilots are adequately prepared for the responsibilities associated with the company's operations.

Our review demonstrated that the FAA should be implementing one level of safety for all commercial air tour operators, especially given the longstanding safety concerns in this area. In addition, to address other Part 91 revenue passenger-carrying operations, we recommended that the FAA develop national safety standards, or equivalent regulations, for revenue passenger-carrying operations that are currently conducted under Part 91. These standards, or equivalent regulations, should include, at a minimum for each operation type, requirements for initial and recurrent training and maintenance and management policies and procedures.

- *The Need to Address Regulatory Loopholes and Omissions.* The FAA created certain exceptions to Part 91 rules that allow some operations to be conducted outside of the scope of regulatory and oversight requirements that apply to operations conducted under an operating certificate. However, some Part 91 revenue passenger-carrying operators have exploited specific exceptions in federal regulations by carrying revenue passengers for purposes other than the exceptions intended, allowing them to avoid more stringent regulatory requirements. For example, two of the accident flights reviewed for this report were inappropriately operating under the student instruction exemption, even with the knowledge of the local FAA office.

The NTSB recognizes that other regulatory loopholes and omissions might also exist. Therefore, the NTSB recommends that the FAA identify shortcomings in 14 *CFR* 119.1(e) that would allow revenue passenger-carrying operators to avoid stricter regulations and oversight and to address these loopholes as part of a new framework for Part 91 operations.

- *The Need for Increased Federal Aviation Oversight.* Part 91 revenue passenger-carrying operators are not subject to the same level of FAA oversight and surveillance as Part 135 operators. The NTSB concludes that the FAA's oversight and surveillance of Part 91 revenue passenger-carrying operations do not ensure that these operators are properly maintaining their aircraft and safely conducting operations. The FAA needs to provide its inspectors with sufficient guidance to pursue more comprehensive oversight of Part 91 revenue passenger-carrying operators. Such guidance and oversight could help ensure that these operators are properly maintaining their aircraft and safely conducting operations.
- *The Need for Safety Management Systems.* Operators need to establish safety management systems (SMSs). An SMS is an effective way to manage and mitigate risks in aviation operations; the FAA has described them as a "formal, top down business-like approach to managing safety risk." The four components of an SMS are safety policy, safety risk management, safety assurance, and safety promotion. Only Part 121 air carriers (generally larger airlines and regional carriers as well as cargo carriers) are currently required to incorporate an SMS, but the FAA has only encouraged voluntary SMS implementation beyond Part 121 operations.

Part 91 revenue passenger-carrying operators would benefit from an SMS to ensure that operational risks are sufficiently mitigated. In addition, FAA oversight of SMSs for passenger revenue-carrying operations currently conducted under Part 91 is critical for ensuring that mitigations are in place to address potential safety hazards.

## **General Aviation and Reauthorization of the NTSB**

Our investigations often find safety issues or identify trends that are important to improving aviation safety, as well as provide information to the flying community about lessons learned.<sup>3</sup> That is one of the reasons why it is so important that we have

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<sup>3</sup> In 2022, to date, we have issued 10 recommendations as a result of general aviation accident investigations. These recommendations concern [carbon monoxide sensors](#), [hazardous icing conditions in Alaska](#), and technical issues with [particular models](#) of [aircraft](#).

reduced our backlog of investigations open for more than 2 years by more than 75 percent, to 78 from 440, since the start of 2022. We anticipate reducing this backlog to zero by the end of the fiscal year. To achieve this, we established a process that filled open investigative and technical review positions to support the mission; triaged investigations that were ready for expedited completion through reassignment; used reemployed annuitants to broaden the pool of report reviewers in the short-term while creating a longer-term solution; enhanced employee performance standards; and developed quality metrics and a means to track them for all investigations.

As you know, I came before the committee earlier this year to discuss our proposal to reauthorize the NTSB. The goal of our reauthorization proposal is to right-size the agency over time and to ensure that our employees have the right skill set. This year, our goal is to grow by about ten percent, increasing our staffing to roughly 412 full-time equivalent positions. Our reauthorization proposal anticipates adding roughly 15 people per year through 2027, in addition to filling the vacancies that will occur through retirements and separations. These 75 total positions do not even fill one-half of the identified needs in our agency. In fact, our staff identified the need for an additional 192 positions over the next 5 years. Of those positions, more than 20 percent are in our Office of Aviation Safety. The vast majority of these new investigators in OAS would investigate general aviation accidents.

I welcome the opportunity to further discuss these safety issues and recommendations with the Committee. In addition, I appreciate the Committee's consideration of our reauthorization proposal, which would allow the NTSB to hire more staff to meet the expanded need for transportation investigations, including those related to general aviation.<sup>4</sup> Please do not hesitate to contact me if I may be of any assistance to you.

Sincerely,

Jennifer Homendy  
Chair

Enclosure

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<sup>4</sup> NTSB. [National Transportation Safety Board Draft Reauthorization Act of 2022](#). Washington, DC: NTSB.

**Recommendations Regarding Revenue Passenger-Carrying Operations Conducted Under Title 14 *Code of Federal Regulations* Part 91**

Number	Status	Recommendation
A-21-9	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Develop national safety standards, or equivalent regulations, for revenue passenger-carrying operations that are currently conducted under Title 14 <i>Code of Federal Regulations</i> Part 91, including, but not limited to, sightseeing flights conducted in a hot air balloon, intentional parachute jump flights, and living history flight experience and other vintage aircraft flights. These standards, or equivalent regulations, should include, at a minimum for each operation type, requirements for initial and recurrent training and maintenance and management policies and procedures.
A-21-10	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Identify shortcomings in Title 14 <i>Code of Federal Regulations</i> 119.1(e) that would allow revenue passenger-carrying operators to avoid stricter regulations and oversight in operations that include, but are not limited to, air combat/extreme aerobatic experience flights and tour flights operating as student instruction, nonstop commercial air tour flights operating as aerial photography flights, and glider sightseeing flights; after these shortcomings are identified, use that information to add other types of flight operations to the national safety standards, or equivalent regulations, requested in Safety Recommendation A-21-9.
A-21-11	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Revise FAA Order 8900.1, Flight Standards Information Management System, to include guidance for inspectors who oversee operations conducted under any of the living history flight experience exemptions to identify potential hazards and ensure that operators are appropriately managing the associated risks.
A-21-12	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Develop and continuously update a database that includes all of the revenue passenger-carrying operators addressed in Safety Recommendations A-21-9 and -10 to facilitate oversight of these operations.

A-21-13	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Require safety management systems for the revenue passenger-carrying operations addressed in Safety Recommendations A-21-9 and -10.
A-21-14	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: For the revenue passenger-carrying operations addressed in Safety Recommendations A 21-9 and -10, provide ongoing oversight of each operator’s safety management system once established.
A-19-28	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Require all commercial air tour operators, regardless of their operating rule, to implement a safety management system. (Reiterated)
A-19-30	Open– Acceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Revise Order 8900.1, Flight Standards Information Management System, to include guidance for inspectors who oversee Title 14 <i>Code of Federal Regulations (CFR)</i> Part 91 operations conducted under any of the 14 <i>CFR</i> 119.1(e) exceptions to identify potential hazards and ensure that operators are appropriately managing the associated risks.
A-19-31	Open– Unacceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Develop and implement national standards within Title 14 <i>Code of Federal Regulations (CFR)</i> Part 135, or equivalent regulations, for all air tour operations with powered airplanes and rotorcraft to bring them under one set of standards with operations specifications, and eliminate the exception currently contained in 14 <i>CFR</i> 135.1.
A-17-45	Open– Unacceptable Response	TO THE FEDERAL AVIATION ADMINISTRATION: Analyze your current policies, procedures, and tools for conducting oversight of commercial balloon operations in accordance with your Integrated Oversight Philosophy, taking into account the findings of this accident; based on this analysis, develop and implement more effective ways to target oversight of the operators and operations that pose the most significant safety risks to the public.