Testimony of

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– On –

FAA Reauthorization: Enhancing America's Gold Standard in Aviation Safety

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Good morning, Chairman Graves, Ranking Member Larsen, and members of the Committee. Thank you for inviting the National Transportation Safety Board (NTSB) to testify before you today regarding America's place as the global leader in aviation safety.

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. In addition, we conduct transportation safety research and special investigations, and coordinate the resources of the federal government and other organizations to assist victims and their family members who have been impacted by major transportation disasters. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and the United States Coast Guard, and adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not have authority to promulgate operating standards, nor do we certificate organizations, individuals, or equipment. Instead, we advance safety through our investigations and recommendations, which are issued to any entity that can improve safety. Our goal is to identify issues and advocate for safety improvements that, if implemented, would prevent injuries and save lives.

Over the last several decades, the critical efforts of operators, manufacturers, labor unions, private aircraft owners and pilots, the FAA, Congress, and the NTSB have led to significant advances in technology and important legislative and regulatory changes that have contributed to the current level of aviation safety. These efforts, many of which have been in response to the lessons learned from NTSB investigations, should serve as an example for industry, labor, regulators, and policymakers in other modes of transportation regarding the need for a collaborative approach to safety. However, we cannot become complacent.

In my testimony today, I want to acknowledge the record of aviation safety over the last decade-plus, discuss the role of the NTSB in improving safety, and address the further work that needs to be done to implement some of the over 300 aviation NTSB safety recommendations that are currently open.[1] Specifically, I want to highlight more work that needs to be done to:

- improve the safety of general aviation and passenger-carrying operations,

[1] A report of all currently open safety recommendations related to aviation is available at https://data.ntsb.gov/carol-main-public/query-builder/route/?t=published&n=27

- improve the availability of recorder data to operators and investigators,
- improve turbulence avoidance and mitigation of injuries due to turbulence,
- reduce fatigue-related accidents, and
- learn from incidents that show the potential for catastrophic accidents.

I also want to discuss emerging aviation technologies that may pose safety challenges.

Finally, I would be remiss if I did not take this opportunity today, as we talk about aviation's incredible safety record, to mention the opposite direction we are going in for road safety, which affects the hundreds of thousands of employees in the aviation industry who travel to and from work every day at airports, airline facilities, manufacturing centers, federal buildings, trade association offices, and other places of work.

A Record Level of Safety

Since 2010, the US aviation system has experienced a record level of safety, as the number of deaths associated with US civil aviation accidents decreased from 541 in 2009 to 376 in 2021, a decrease of roughly one-third.[2] Approximately 91 percent of aviation fatalities in 2021 occurred in general aviation accidents, with the remainder (27 total) in Title 14 *Code of Federal Regulations* (*CFR*) Part 135 commuter and on-demand operations, which include charters, air taxis, air tours, and air medical services flights (when a patient or medical personnel are on board). A preliminary review of data for 2022 shows that 18 people were killed in accidents involving Part 135 operations last year.

Ten of those fatalities were the result of one accident—the September 4, 2022, crash of a De Havilland Canada DHC-3 Otter into Mutiny Bay, near Freeland, Washington. The scheduled flight was operated by Northwest Seaplanes, which was doing business as Friday Harbor Seaplanes.

Working with the National Oceanic and Atmospheric Administration (NOAA) and the University of Washington's Applied Physics Laboratory, the wreckage was located underwater at a depth of approximately 190 feet. The wreckage recovery operation was completed by the US Navy's Supervisor of Salvage and Diving on September 30, 2022, with about 85 percent of the airplane recovered from the seafloor. The operator's insurance did not cover the cost of the recovery, and, because examination of the wreckage was critical to our investigation, we paid $1.7 million for the operation from our regular appropriations.

[2] National Transportation Safety Board, 2002–2021 civil aviation accident statistics.

Examination of the wreckage indicated that a part of the airplane's pitch trim control system had separated into two pieces after becoming unscrewed. A lock ring, which was designed to prevent this from happening, was not recovered, and there was no evidence that the pieces separated due to the force caused by the accident. Our investigation is ongoing and, at this time, we do not know if the lock ring was present before the airplane impacted the water or why it was missing during the airplane examination. However, our findings raised concerns that a missing or an improperly installed lock ring on other DHC-3 airplanes could result in a catastrophic loss of control. As a result, we issued urgent safety recommendations to the FAA and Transport Canada to require all DHC-3 operators to immediately inspect the lock ring and report their findings.[3] By taking such action, this identified safety issue could be addressed without having to wait for the investigation to be completed.

I want to acknowledge and thank the FAA for taking quick action and issuing an emergency airworthiness directive on November 2, 2022—within a week of the recommendation being issued—requiring operators to inspect their aircraft lock rings.

I highlight this accident because it is an example of how the investigative process works to compel prompt action for safety improvements. The use of a party system, in which we designate the regulators, operators, and manufacturers who have information relevant to the investigation to provide technical expertise during the fact-finding phase of the investigation, has been our practice for decades because it is the most effective way to investigate major transportation accidents. The party system also ensures that the appropriate regulatory agencies and the parties whose products or services were involved in the accident or incident will have access to factual information so that they can initiate any necessary safety actions without delay.

Our investigation of the Mutiny Bay crash also shows the importance of working with foreign investigative authorities and organizations. In this case, once the safety concern was identified, the aircraft manufacturer, Viking Air Limited, a technical adviser to the Transportation Safety Board of Canada, published a service letter recommending that all DHC-3 operators confirm that the lock ring is present and correctly engaged on their aircraft.

NTSB's Role in Maintaining Safety

The purpose of our aviation investigations is to find safety issues and identify trends that must be addressed to improve aviation safety, as well as to provide information to the flying community about lessons learned. Investments made in the NTSB to hire investigators and researchers, train them on emerging technologies, and provide them the technology needed to keep pace with advances in the industry, as well as to strengthen our cybersecurity efforts and data analytics capabilities, are

[3] National Transportation Safety Board. *Require Immediate One-Time Inspection of De Havilland Canada DHC-3 Horizontal Stabilizer Actuator.* Rpt. No. AIR-22/08 (Washington, DC: NTSB 2022).

investments that help maintain the nation's role in the world as the standard bearer for safety.

Our Office of Aviation Safety currently consists of 115 employees, 83 of whom are accident investigators. The office handles over 1,300 accidents and incidents annually. These include investigations of aviation, uncrewed aircraft systems, advanced air mobility, and experimental aircraft accidents and incidents, as well as certain commercial space mishaps. We also participate in about 450 investigations annually of airline accidents and incidents in foreign countries that involve US carriers, US-manufactured or -designed equipment, or US-registered aircraft, such as the recent accidents in Indonesia and Ethiopia involving Boeing 737 MAX aircraft.

Our current authorization expired at the end of the last fiscal year (FY). As you know, we transmitted a reauthorization proposal to the previous Congress, requesting resources and hiring flexibilities to increase the number of investigators throughout the agency.[4] I testified on our goals to right-size our agency. I am happy to report that, since last April, we have already made great progress toward our goals to ensure that our employees have the right skill set, staffing up to our highest level since 2017 to 414 people on October 1, 2022. In FY 2022, we hired 57 people, the highest number in 10 years. Our reauthorization proposal anticipates adding roughly 15 new employees per year through 2027, in addition to filling the vacancies that will occur through retirements and separations.

In addition, since the start of 2022, we have significantly reduced the backlog of investigations open for more than 2 years by filling open investigative and technical review positions, reassigning investigations that could be expedited, using reemployed annuitants to broaden the pool of report reviewers in the short-term, enhancing employee performance standards, and developing quality metrics and a means to track them for all investigations.

We will transmit an updated reauthorization proposal to Congress in the coming weeks, and I look forward to working with you on legislation that will allow us to hire professionals with the needed skills, purchase the equipment necessary for those skilled professionals to do their jobs, and invest in staff training and development. Our workforce is our greatest asset and is essential to our mission to make transportation safer and to maintain our status as a leader in safety—here and internationally.

Safety in General Aviation and Revenue Passenger-Carrying Operations

The vast majority of our investigations involve general aviation accidents. Lessons learned from those investigations have contributed to the improved safety of

[4] National Transportation Safety Board Draft Reauthorization Act of 2022. Washington, DC: NTSB.

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 total investigations. Since 2001, the rate of fatal accidents in general aviation operations has largely 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 2021, the rate was .951.[5]

Although general aviation safety has improved in the last decade, we do see areas where additional effort is needed. Our general aviation accident investigations have exposed safety issues and identified trends that resulted in safety recommendations.[6] Most general aviation operations under 14 *CFR* Part 91 are for noncommercial personal or business use, while most commercial operators are regulated under Part 135 or Part 121. However, the NTSB is particularly concerned about the safety of various revenue passenger-carrying operations that are conducted under Part 91, including 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.

In March 2021, we adopted a report to address the safety of these operations.[7] We also included this issue on our Most Wanted List of Transportation Safety Improvements for 2021–2023.[8]

These operations, which carry thousands of paying passengers 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 such operations are likely unaware that these operations have less stringent safety requirements than other commercial aviation operations.

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[5] National Transportation Safety Board, 2002–2021 civil aviation accident statistics.
[6] In 2022, we 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.
[7] National Transportation Safety Board. *Enhance Safety of Revenue Passenger-Carrying Operations Conducted Under Title 14* Code of Federal Regulations *Part 91*. Rpt. No. AAR 21/03 (Washington, DC: NTSB 2021).
[8] 2021–2023 Most Wanted List.

As I wrote to you last summer, we issued recommendations to the FAA to apply greater safety requirements and more comprehensive oversight to revenue passenger-carrying operations.[9] As detailed in that letter, these recommendations address four categories of identified deficiencies (which do not apply to personal or business use of general aviation aircraft where no charge is made):

- *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 operations and address commuter and on-demand operations, such as 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.

  The NTSB's 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, the NTSB 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 we reviewed were inappropriately operating under the student instruction exemption, even with the knowledge of the local FAA office.

[9] NTSB Chair Jennifer Homendy. *Letter for the record regarding the July 13, 2022, House Transportation and Infrastructure hearing, "The State of General Aviation."*

The NTSB recognizes that other regulatory loopholes and omissions might also exist; therefore, we recommend 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 a safety management system (SMS), which is an effective way to manage and mitigate risks in aviation operations. The FAA has described SMSs 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 into their operations; the FAA has only encouraged all other operators to voluntarily implement an SMS.

Part 91 revenue passenger-carrying and Part 135 operators would benefit from an SMS to ensure that operational risks are sufficiently mitigated. In addition, it is critical that the FAA oversee these operators' SMSs to ensure that mitigations are in place to address potential safety hazards.

On January 10, 2023, the FAA issued a notice of proposed rulemaking to update and expand the requirements for SMSs and to require Part 135 operators and certain Part 91 revenue passenger-carrying operators to develop and implement an SMS. We are continuing to review the proposed rule and its relation to our safety recommendations, but we welcome the FAA's action on this issue. FAA oversight is critical to ensuring operators adhere to the principles and processes of an effective SMS. The NTSB has investigated many accidents involving operators whose deficient SMS failed to identify and mitigate the conditions that contributed to the accident. For

example, the NTSB's investigation of the January 26, 2020, helicopter crash in Calabasas, California, revealed that although Island Express, the Part 135 operator, had implemented an SMS, its lack of a documented policy and safety assurance evaluations hindered its effectiveness of its SMS. We recommended that Island Express participate in the FAA's voluntary SMS program. Island Express responded that it was not going to implement our recommendation.[10]

Install Crash-Resistant Recorders and Establish Flight Data Monitoring Programs

Another issue on our Most Wanted List of Transportation Safety Improvements calls on the FAA to mandate crash-resistant recorders in all revenue passenger-carrying operations and to require flight data monitoring and analysis programs. However, operators should not wait for mandates to do so; they can realize the safety benefits of these technologies now.

In aviation, data, audio, and video recorders capture and store critical information that can help investigators determine the cause of accidents while helping companies and operators take immediate steps to prevent accidents. However, many passenger-carrying commercial aircraft, such as charter planes and air tours (under Part 135 and Part 91), are still not equipped with these critical technologies, even though recorders are readily available, easily installed, and largely affordable. The availability of recorded data will also be critical for the operation of advanced air mobility aircraft, some of which will likely operate under Part 135 and are not currently required to have recorders.

Recorders not only help determine the cause of an accident, they also help companies and operators establish effective safety management strategies. These operators should have flight data monitoring programs in place that analyze recorder data and use that information to adjust procedures and enhance crew training to prevent accidents from happening in the first place. Although some operators have implemented—or are in the process of implementing—recorder programs and systems, we are concerned that many will not do so without the FAA's action.

In addition to the need for all revenue passenger-carrying aircraft to be equipped with recorders, we have also been concerned about current FAA requirements for cockpit voice recorders (CVRs). Current FAA regulations require 2-hour CVR recording capability and provide guidance to the flight crew on how to safeguard CVR data after an accident or incident. Despite this, valuable CVR data continues to be overwritten and therefore unavailable for safety investigations, as happened in the 2017 incident in which an Air Canada flight overflew four other air carriers on the taxiway in San Francisco, as well as in the recent runway incursion incident involving two Part 121 operators at John F. Kennedy International Airport in

[10] See Island Express Helicopters Inc. responses to Safety Recommendation A-21-7.

New York. Our ongoing experience with overwritten CVR recordings demonstrates the limitations of the current 2-hour recording requirement, particularly in cases where relevant data were overwritten due to the following:

- a delay in reporting a safety event that was not immediately recognized to be of a serious nature until further data review,
- a failure to immediately deactivate the CVR following arrival after a safety event, or
- the time remaining in the flight after a safety event, which exceeded the CVR's 2-hour recording duration.

As a result of these concerns, in 2018, we issued recommendations to the FAA to address the need to install CVRs with a minimum 25-hour recording capability on all newly manufactured airplanes required to have a CVR, and to retrofit these CVRs on existing aircraft required to have flight recorders.[11]

Preventing Turbulence-Related Injuries

Turbulence-related accidents are the most common type of accident involving air carriers, accounting for more than a third of Part 121 accidents from 2009 through 2018. Most of these accidents resulted in one or more serious injuries but no aircraft damage. Flight attendants were the most commonly injured in these accidents, accounting for 78.9 percent of all seriously injured persons. We are currently investigating a Part 121 accident that occurred on December 18, 2022, in which Hawaiian Airlines flight 35 experienced severe convectively induced turbulence at 40,000 feet, about 40 minutes from landing at Honolulu International Airport. Of the 291 passengers and crew, 25 were injured, 6 seriously. The airplane sustained minor damage.

On August 10, 2021, we released a safety research report that examined the prevalence and risk factors of turbulence-related accidents in Part 121 air carrier operations; assessed the effectiveness of policies, programs, technologies, and other applicable safety countermeasures; and made 21 new recommendations to improve turbulence avoidance and injury mitigation.[12] These recommendations call for improvements in the reporting and sharing of information regarding turbulence risks, the use of data to revise guidance on when flight attendants should be secured in their seats to prevent injuries, and efforts to increase the use of child restraint systems.

[11] National Transportation Safety Board. *Extended Duration Cockpit Voice Recorders*. Rpt. No. ASR-18/04 (Washington, DC: NTSB 2018).
[12] National Transportation Safety Board. *Preventing Turbulence-Related Injuries in Air Carrier Operations Conducted Under Title 14* Code of Federal Regulations *Part 121*. Rpt. No. SS-21/01. (Washington, DC: NTSB 2021).

Reducing Flight Crew Fatigue

Fatigue degrades a person's ability to stay awake, alert, and attentive to the demands of safely controlling an aircraft. The NTSB has investigated many air carrier accidents involving fatigued flight crews, including Colgan Air flight 3407. In 2006, we issued a safety recommendation to the FAA as a result of our investigation of the October 19, 2004, crash of Corporate Airlines flight 5966 in Kirksville, Missouri, to modify and simplify the flight crew hours-of-service regulations to take into consideration factors such as length of duty day, starting time, workload and other factors shown by recent research, scientific evidence, and current industry experience to affect crew alertness.[13] Current FAA rules that prescribe flight- and duty-time regulations for all flight crewmembers and certificate holders under Part 121 exclude operators who conduct cargo operations.[14] We disagree with this exclusion, as many of the fatigue-related accidents that we have investigated over the years involved cargo operators. We also believe that, because of the time of day that cargo operations typically occur, such operations are in greater need of these requirements. We continue to believe that the FAA should include all Part 121 operations, including cargo operations, under these requirements.

Wrong Surface Operations and Runway Incursions

We also investigate numerous aviation safety incidents each year. In fact, we have completed more than 800 aviation incident investigations in the past 20 years, resulting in several safety recommendations. For example, our investigation of the 2017 Air Canada incident in San Francisco resulted in recommendations to the FAA regarding the presentation of information to pilots (such as through notices to air missions, known as NOTAMs) as well as technology to detect wrong runway or other surface landings. I want to thank Representatives Stauber and DeSaulnier for their leadership in the House passing the NOTAM Improvement Act 2 weeks ago, which will help address issues that we identified in our investigation.

Several factors are considered when deciding which safety incidents merit an NTSB-led investigation. Safety risk and the possibility that a repeat event could lead to a catastrophic outcome are among the key considerations. The potential for findings related to regulatory standards or safety oversight that could lead to systemwide safety improvements, as opposed to local or isolated improvements, are also considered. By weighing these factors, we ensure that resources are applied to investigate incidents with the potential for greatest effect on public safety. Wrong surface operations and runway incursions are examples of such concerning incidents.

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[13] NTSB. *Collision with Trees and Crash Short of the Runway, Corporate Airlines Flight 5966 BAE Systems BAE-J3201, N875JX Kirksville, Missouri*. Rpt. No. AAR-06/01 (Washington, DC: NTSB, 2006). NTSB Safety Recommendation A-06-10.

[14] Federal Aviation Administration, *Flightcrew Member Duty and Rest Requirements*, 14 CFR Parts 117, 119, and 121.

For example, in June 2022, we initiated investigations into two wrong runway landings by Part 121 operators. On June 8, FedEx flight 1170 landed on the wrong the runway at Tulsa International Airport in Oklahoma.[15] The captain and first officer were not injured, and the aircraft was not damaged. The flight was cleared for a visual approach and landing on runway 18L; however, the airplane landed on runway 18R. The airplane was operated as a Part 121 cargo flight from Fort Worth Alliance Airport in Fort Worth, Texas.

On June 21, United Airlines flight 2627 was cleared for a visual approach and landing on runway 28C at the Pittsburgh International Airport in Pittsburgh, Pennsylvania, but instead lined up with and landed on runway 28L.[16] None of the 174 occupants aboard the airplane were injured and the aircraft was not damaged. The regularly scheduled passenger flight was operating under the provisions of Part 121 from the Chicago O'Hare International Airport.

Although there were no injuries or damages due to these two incidents, they, along with the Air Canada event already mentioned, illustrate the potential for a catastrophic accident due to wrong surface operations. Both the Tulsa and Pittsburgh investigations are ongoing, and preliminary reports have been issued.

Emerging Transportation Technologies

Advances in technology are transforming transportation and hold promise for improving transportation safety, but they also pose new challenges. The integration of high-volume drone operations, advanced air mobility aircraft, commercial airliners, general aviation aircraft, and commercial space vehicles all together in the National Airspace System is increasing the complexity of airspace operations and management and is also likely to increase our accident and serious incident investigation workload over the next 5 years. This diverse platform of operations will also require enhanced—and in some cases, all new—skill sets and capabilities as the complexity and breadth of operations grows. In addition, new technologies, such as autonomous systems, introduce more complexity to the traditional aviation workload as well as to operational functions, such as changes to the FAA's flight certification process. Our involvement in these emerging areas, with appropriate coordination with the FAA (particularly in commercial space mishap investigations), will support the growth of these industries by assuring the public that investigations are being conducted impartially and that safety issues are identified.

Our Road Safety Crisis

We believe that the only acceptable number of deaths and serious injuries in all modes of transportation is zero. We have more work to do in aviation to achieve

[15] NTSB. *Preliminary Report for DCA22LA126*.
[16] NTSB. *Preliminary Report for DCA22LA133*.

that goal, as we will discuss today. However, the greatest risk to aviation employees and aircraft owners and operators is on our nation's roads, where about 95 percent of all US transportation deaths—nearly 43,000 in 2021—occur. Millions of people are injured each year.

The following five of the ten items on our Most Wanted List of Transportation Safety Improvements are related to road safety:

- Implement a Comprehensive Strategy to Eliminate Speeding-Related Crashes
- Protect Vulnerable Road Users through a Safe System Approach
- Prevent Alcohol- and Other Drug-Impaired Driving
- Require Collision-Avoidance and Connected-Vehicle Technologies on all Vehicles
- Eliminate Distracted Driving

We are calling for a Safe System Approach for our roads that prioritizes the lives. A Safe System recognizes that human error is inevitable, but it should never cost someone their life or result in a serious injury. A Safe System addresses all aspects of road safety—speed, road design, vehicles, road users, and postcrash care. We must make better safety investments, from road treatments to strong traffic safety laws and robust education efforts, to mitigate injury risks for all road users. I hope that we can continue to work together and take some of the lessons learned from the collaborative approach to safety in aviation to address our road safety crisis.

Conclusion

Thank you for the opportunity to further discuss these safety issues and recommendations with the Committee. We recognize the progress that has been made; yet, there will always be room for improvement. We stand ready to work with the Committee to continue improving aviation safety, which includes ensuring that the NTSB has the resources needed to carry out our mission.

I am happy to answer your questions.