



STATEMENT OF

THE NATIONAL BUSINESS AVIATION ASSOCIATION

ED BOLEN  
PRESIDENT AND CEO

BEFORE

THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

THE UNITED STATES HOUSE OF REPRESENTATIVES

REGARDING

FAA REAUTHORIZATION:  
ENHANCING AMERICA'S GOLD STANDARD IN AVIATION SAFETY

FEBRUARY 7, 2023

Chairman Graves, Ranking Member Larsen, and members of the Transportation and Infrastructure Committee, thank you for holding this hearing to address aviation safety. On behalf of the National Business Aviation Association's (NBAA's) 11,000-member companies, I am honored to testify at this hearing.

NBAA's members, many of which are small businesses, rely on general aviation aircraft to meet some portion of their transportation needs. These aircraft provide connectivity to communities in every state and nearly every congressional district, which is especially critical to communities with little or no airline service. Business aviation is keeping small businesses globally competitive and bolstering our national economy with 1.2 million American jobs and \$247 billion in economic output.

The aviation industry overall – from commercial aviation, to general aviation, manufacturing, Advanced Air Mobility and other emerging technologies and associated businesses – accounts for more than five percent of the United States gross domestic product. Considering the vast challenges facing the FAA, and the opportunities that lay ahead, swift passage of a new 5-year, bipartisan authorization will help set the agency on a stronger path for the future and ensure continued success of the industry. The NBAA urges Congress to prioritize on-time passage of FAA Reauthorization before the current law expires on September 30, 2023. We applaud Chairman Graves for setting a goal of passing a bill through the House of Representatives by July 1, 2023, and for getting to work right away with today's hearing.

#### A Legacy of Safety Leadership

NBAA appreciates Chairman Graves and Ranking Member Larsen for choosing safety as the topic for the Committee's first hearing on FAA reauthorization. Since the dawn of flight, safety has been integral to everything we do, on the ground and in the air. Since NBAA was founded in 1947, we have been intentional in developing partnerships with government leaders and other stakeholders to deliver the products, procedures and policies that continually increase the safety of flight.

Because of this continued, comprehensive focus on innovative approaches to safety, aviation is the safest mode of transportation, and the U.S. stands as the global leader in aviation safety. Safety is not a destination, it is a journey and a practice that requires vigilance and a supportive culture to thrive. Although the business aviation community has built an impressive safety record, there is room for improvement and we will continue to strive to do better.

An FAA reauthorization bill offers an opportunity to consider not only the innovations that have made America the world's aviation safety leader, but also the

additional measures that will be needed to maintain this leadership position five, 10 and 25 years from now. General aviation (GA) has a strong role to play in shaping the future, in part because it is the proving ground for the industry. GA is where aviation was born, and it's the point of entry for many in the community, from the pilot's first hours of flight to the mechanic's first oil change. NBAA and the business aviation community greatly appreciate the opportunity to be an active participant in the development of this safety plan for the future through a new General Aviation title under FAA Reauthorization.

### Safety Leadership Through Pioneering Technologies

As this committee knows, many of the technologies and solutions that have revolutionized aviation safety were born in the business aviation community. We led the way with GPS, a transformative navigation and safety technology. We led the way in development of airborne collision-avoidance systems that ensure situational awareness at all altitudes. We led the way in developing enhanced vision systems that can identify unanticipated ground obstructions in thick fog, and see through clouds to locate terrain while in flight.

We partnered with the FAA in integrating the Reduced Vertical Separation Minimum (RVSM) technology that has vastly increased the efficiency and safety of aviation system management. Similarly, we were the early adopters of Automatic Dependent Surveillance Broadcast (ADS-B), a cornerstone technology for ushering in the next generation aviation system's enhancements to safety, as well as efficiency and sustainability.

### Safety Leadership Through Data-Based Programs

Of course, the deployment of world-leading technologies has been only one piece of the safety equation for aviation. The development and implementation of innovative programs that identify the root causes of safety threats, and offer proven ways to eliminate them, is also a key building block for a solid safety foundation.

For example, 20 years ago, NBAA and its members joined with the International Business Aviation Council in developing the safety focused International Standard for Business Aircraft Operations (IS-BAO), a set of best practices focused on safety management as a data-driven team effort, including pilots and cabin crew, schedulers, dispatchers, maintenance technicians and others. Since the program's founding, more than 700 business aviation operators in 35 countries have become IS-BAO registered, improving their safety risk profile.

Today, the business aviation community is an active participant in a variety of government-industry programs that aggregate operational data to identify risks, capture behaviors that contribute to accidents, and pinpoint ways to mitigate those events. As just one example, we can point to the FAA's Aviation Safety Information Analysis and Sharing program, also known as "ASIAS," in which more than 150 organizations capture and coordinate data and other information critical to avoiding a variety of unusual events, including bird strikes, mid-air collisions, course deviations and other aviation safety hazards.

NBAA has promoted ASIAS through discussions at our National Safety Forum on specific aviation hazards, during the NTSB Roundtable discussion at NBAA Business Aviation Convention and Exhibition (NBAA-BACE), in articles published in NBAA's safety-focused Business Aviation Insider magazine, and through our ongoing engagement at the ASIAS Executive Board and GA Issues Analysis Team governance levels within the program.

As part of Safer Skies, launched in 1998, the FAA and the general aviation community jointly pursue a goal of reducing GA fatal accidents. The General Aviation Joint Safety Committee (GAJSC) uses a data-driven, consensus-based approach to analyze safety data to develop specific interventions that will mitigate the root causes of accidents. The GAJSC focuses on proactively assessing data to identify new emerging issues and threats to general aviation safety, analyze them, and develop mitigation strategies to address and prioritize safety issues to prevent accidents. NBAA, a founding member of the GAJSC, has supported the valuable safety studies and analyses conducted by this group, and worked to educate our members on the tools created to address specific safety risks.

The current goal is a safety improvement over the FY18 target of 1.00 fatal accidents per 100,000 flight hours to a FY28 target of 0.89 fatal accidents per 100,000 flight hours.

#### Leadership in Safety Policy Development

A comprehensive approach to safety involves not just an investment in new technologies, or simply the development of risk-mitigation programs, but also a continuing commitment to an effective and tailored policy framework that matches the size and operational realities of business aviation. For a safety mandate to realize the benefits it seeks, it must have flexibility to scale, to fit the largest commercial operation, or the smallest charter business. NBAA and its members have led the way in this area.

For example, the business aviation community has most recently been focused on a policy proposal put forward by the FAA in January, which would extend the requirement for implementation of Safety Management System (SMS) programs beyond those for the airlines to many business aircraft operations.

While NBAA and its members have always supported rigor in ensuring everyone involved in a flight maintains a premium on safety, we know that an SMS suited for the largest airline will not likely be transferable to a small operation with a single airplane.

We can look outside of the United States to learn lessons as we review the FAA's new proposal. Our focus will be on ensuring that any resulting program is not only flexible, but also meaningful in driving safety, rather than confusion due to compliance burdens and other missteps that have been characteristic of the introduction of SMS for business aviation in Canada and elsewhere.

Canada's SMS implementation in the mid-2000s created significant industry concerns due to lack of scalability and the government's poor transition from a historic view of prescriptive oversight to one where risk is defined by the operator. As a result, it has taken nearly two decades to modernize those initial regulations so that they reflect the vast diversity of operations subject to the mandates involved.

A similar operator experience with the SMS rollout in New Zealand was recently publicly shared in [AvWeb](#):

"We've gone through SMS in New Zealand...We were promised from the start that it would be scaled to the size of our operations, but in the end we had to do all the requirements, even if the CAA [Civilian Aviation Authority] guys acknowledged it made little sense for us...The hardest part of implementation was a lack of understanding from CAA about SMS, since they were quite new to it as well, so we had little effective guidance (despite a lot of effort on their part) and a lot of inconsistent directives."

The U.S. aviation industry cannot afford to repeat the poorly developed SMS deployment we have seen elsewhere. We must get this right from the start in order to leverage the safety benefits that we know SMS can deliver. The business aviation community has experience partnering with the government in the development of effective, customized policies, and we enthusiastically welcome the same approach to the consideration of SMS requirements for our sector.

A Culture That Recognizes Safety Achievement

A key strategy for continually enhancing business aviation's safety posture is to cultivate and acknowledge excellence in safety leadership within the industry. Everyone - from the pilot, to the cabin crew, to the dispatcher, to the maintenance technician and beyond - has an important role in the safety of flight.

With this in mind, NBAA in 2022 launched its Business Aviation Safety Manager Certificate Program. This completely online accreditation was designed to educate individuals to effectively manage a business aviation organization's proactive safety efforts. It includes an in-depth look at the four elements of an SMS, including Safety Policy, Risk Management, Safety Assurance and Safety Promotion, as well as modules on Safety Leadership and Emergency Response.

The effort goes beyond initial education, by connecting certificate applicants to each other, in a community of engagement through peer-to-peer learning that fosters continuous safety improvement across the board, while also meeting the specific operational needs of any given aviation operation. In just a single year since this program's launch, more than 300 people have completed the course, obtaining recognition for safety leadership, while building an enduring peer community of safety advocates in business aviation.

NBAA honors safety leadership in other important ways. For several decades the association has annually issued its Flying Safety Awards, a standards-based honor that recognizes exceptional achievement in safe flying operations, and pays tribute to the skill of a company's management, maintenance, pilot and support-personnel teams. NBAA's Safety Committee, one of its oldest committees, administers the annually issued Dr. Tony Kern Professionalism in Aviation Awards, which specifically honor individuals for outstanding professionalism and leadership in support of aviation safety. The committee's newest honor, the Above and Beyond Award, is given to individuals whose application of safety best practices played a key role in avoiding injury, loss of life, or catastrophic aircraft damage in hazardous flying circumstances.

### Leveraging the Safety Benefits of New Technology

A solid foundation of safety has been built over the last several decades through products that enhance safety, programs that ensure safety remains job one in aviation, policies that build on the many gains made in flight safety, and, promotion of leadership in the safety arena. That said, the aviation landscape is continually evolving, and the industry's approach to safety must evolve with it.

Consider the continuing breakthroughs in aviation technology that are delivering a myriad of benefits – from speed, to fuel efficiency, to safety – and how those advances might offer an opportunity to update regulations to match the safety benefits they deliver. For example, current federal mandates require pilots to use supplemental oxygen at high altitudes in pressurized aircraft. If one pilot leaves the controls of an airplane while it is at high altitude, the remaining pilot at the controls is required to use an oxygen mask, to reduce the possibility of an accident caused by a decompression incident, until the other pilot has returned to the controls. The development of new technologies allow for the oxygen requirement to be reconsidered: specifically, advances made in pressurization and hull design have introduced multiple layers of safety not available decades ago, and have dramatically reduced the need for a supplemental oxygen mandate to address a depressurization event.

We commend Congress for recognizing this reality by amending the rule on supplemental oxygen under the Federal Aviation Administration Reauthorization Act of 2018, for operations conducted under Part 121, to allow a crew to operate safely up to 41,000 feet without supplemental oxygen. The NBAA is urging Congress to apply the same standard to operations conducted under FAR Part 135.

#### Accelerating Technology Upgrades to Improve Safety

As important as new technologies are in offering game-changing ways of thinking about safety, it is equally important to ensure that critical legacy technologies receive the resources needed to stay at the cutting edge.

As one example, the United States Notice to Air Missions System (USNS) is a critical aviation safety technology. The USNS is intended to provide always-up-to-date safety notices for pilots, with real-time information about airports and airspace to help ensure a flight is conducted safely.

Unfortunately, needed upgrades to the technology that would provide for enhanced customization of information and other beneficial safety features are years behind schedule. As a practical matter, a pilot might be required to needlessly sift through reams of NOTAM information about a flight to ensure its safety.

For well over a decade, NBAA has urged the FAA to modernize the NOTAM infrastructure and enhance the system to ensure pilots have ready access to machine-readable, filterable and useful information in the International Civil Aviation Organization (ICAO) format used by the rest of the world.

In 2019, the FAA and industry formed the Aeronautical Information Reform Coalition, which has been working collaboratively on NOTAM reform, with NBAA leading the coalition on behalf of the industry.

Under the coalition's guidance, the FAA has begun to transition the USNS to a new Federal NOTAM System (FNS), but the completion date has been met with repeated delays, and the needed enhancements have yet to be delivered.

Unfortunately, as is typically the case with technological upgrades, delays ultimately come with a cost: on January 10, 2023, the FAA issued a nationwide ground stop due to the need for a USNS reboot, following a system outage. Not only did the ground stop impact all operators; it also created a cascading effect on aviation system operations that was incredibly difficult to recover from, despite the full outage lasting only a few hours.

We applaud the leadership of the House of Representatives in passing the NOTAM Improvement Act of 2023; however, more must be done to bolster the system so that it utilizes the most updated technologies to best inform its users' decisions about safety and other aspects of a flight.

As the administration and Congress investigate what caused the USNS outage, NBAA recommends the establishment of clear goals and accountability measures for the implementation of FNS, including implementation of an FNS with an enhanced capability to deliver machine-readable, filterable and useful information in the format used by the International Civil Aviation Organization (ICAO); the completion of a robust, reliable backup system to FNS, and; an agreement to a deadline for the complete transition to FNS. We urge Congress to provide the FAA with the resources necessary to achieve these goals.

#### Leveraging Technology the Right Way to Capture Safety Benefits

Technology advancements can deliver undeniable societal benefits, but sometimes come with challenges that require mitigation. A recent breakthrough in telecommunications technology and the Federal Communications Commission's sale of frequency spectrum adjacent to bandwidth used by aviation equipment created a critical safety threat to aviation users.

NBAA has been an active party in discussions with regulators and industry stakeholders to determine suitable mitigations that would enable such networks to safely coexist with critical aviation systems.

Beginning in 2015, NBAA and a broad coalition of aviation stakeholders raised detailed safety concerns about the potential for 5G interference with radio altimeters.

The mitigations to ensure that 5G power levels around many of the nation's airports remain lower than allowed by telecommunications providers were extended over the course of the past year but are about to expire. Currently, only some of the business aviation fleet have alternate means of compliance, allowing them to continue all-weather access to most airports. For a significant portion of our fleet, there is not yet an approved retrofit solution to upgrade the radar altimeter with filters to protect from 5G interference.

Over the coming months, we respectfully recommend that the FAA dedicate the necessary resources to approve alternate means of compliance or the radar altimeter modifications needed for the general aviation fleet to safely operate across our nation's entire airport network. We appreciate the Subcommittee's continued attention to this critical safety matter.

Similarly, when the FAA transitioned from ground-based radar to ADS-B, a real-time precision, shared situational awareness system for pilots and controllers, some unintended privacy and security concerns came with it.

Through ADS-B, unencrypted signals that provide an aircraft's flight identification, precise position, and other detailed data are widely broadcast to the public. The real-time location positioning of aircraft has enabled flight stalking and harassment on the internet and in person, creating a serious safety and security threat.

Individuals who have received threats are in danger because their real-time movements and travel plans are available to the public. Competitors and nation-states can track where a business aircraft is flying, presenting industrial security concerns. This means that to protect passengers and operators of general aviation aircraft, the FAA must do more to prioritize the development of additional security measures.

For example, the FAA should expedite its work to improve the Privacy ICAO Address (PIA) program, which allows operators to obtain a random "aircraft address" code, which can provide additional security and is not tied to publicly available FAA aircraft registration records. The FAA should also explore the limitations of the PIA program. For example, currently the codes cannot be used for international flights or even extended for overwater operations in the United States.

Also, the FAA should work internally and with international partners so that privacy addresses can be utilized for all flights. The FAA also must plan for the future by studying how to encrypt ADS-B signals from aircraft, developing relevant equipment standards, and engaging with affected stakeholders for a more effective privacy solution.

We firmly believe that no one should be required to surrender their safety, security and business intelligence because they board an aircraft – just as people's movements aboard airlines, railroads, and other modes of transportation are not the business of cyber-stalkers.

### Addressing Human Factors to Strengthen Safety

As noted earlier, technologies, and their implications for aviation, are a key element in the safety formula, but technology cannot replace the human element in the equation. That's why the business aviation community places a sharp strategic focus on human factors - how fatigue, stress, confusion and other influences can impact decision-making - in thinking about safety.

Take, for example, the misperceptions that can lead a pilot to take off or land from a wrong taxiway, runway, or even a wrong airport. These incidents are known as wrong surface events. They often involve human factors, and reducing them is a top priority for FAA, NBAA and the industry. We are actively working with the FAA and other stakeholders in the Surface Safety Group focused on developing tools to increase situational awareness for pilots at airports with a high number of wrong surface incidents.

The association recently participated in the FAA's Surface Safety Symposium, which brought together commercial airlines, ground vehicle drivers and general aviation pilots and operators to discuss and develop solutions to runway and surface safety challenges. NBAA also provided a platform to the FAA Runway Safety organization at its October 2022 NBAA-BACE, which included 20,000 attendees from across the industry, to have a booth presence in the Exhibit Hall and to engage with attendees during the Meet the Regulators session.

NBAA is also working to reduce runway excursions, another event often driven by human factors, in which an airplane inappropriately exits a runway. Like incursions, these events require strategically driven mitigation planning, along with tools developed by experts for industry. To that end, the association has gathered some of the best expertise on excursions at events, including our National Safety Forum in 2022, and continues to publish resources, including our guide for Reducing Business Aviation Runway Excursions.

Another important part of the work to address the impact of human factors on aviation safety lies in our sector's focus on mental health and fitness for duty. More than a small-bore approach to myriad, stand-alone psychological and physical symptoms, the work in this area looks at the whole person, recognizing that aviation is a physically and mentally demanding environment in which a clear mind and well-rested, healthy body is essential to safe business aircraft operations, maintenance and management.

Studies confirm the prevalence of this concern, as well as the need for both action and compassion on the matter: one recent report<sup>1</sup> concluded that nearly 60% of pilots avoid seeking health care due to the fear of losing their aviation medical certificate. NBAA is concerned that some aeromedical certification requirements may needlessly impede eligibility for pilot certification, severely dissuading pilots from seeking treatment for a troubling condition.

As with so many other aspects of aviation safety, partnerships between industry and government can produce solutions to the problem without compromising safety, and we have proven successes with such an approach.

For example, we have worked with the FAA to develop multiple pathways for Aviation Medical Examiners (AMEs) to issue airmen medical certificates at the conclusion of an exam, thereby minimizing wait times for FAA reviews. We have also emphasized the need for AMEs to research and identify for aviators the full menu of pharmacological treatment options that can safely be used in the aviation environment to address a given condition, and to better define the criteria for requiring or deferring neurocognitive testing.

We continue to be an active partner in educating the business aviation community on these policies; in the past year alone, NBAA hosted an interactive News Hour webinar and a National Safety Forum discussion with aviation mental health experts and the FAA Federal Air Surgeon. We have engaged with the aviation community on these policies at events such as the Experimental Aviation Association's annual AirVenture Oshkosh show, the University of North Dakota's yearly Aviation Mental Health Symposium, as well as regularly held FAA Human Intervention Motivational Study and InfoShare Conferences and FAA GAJSC meetings, among others.

Collectively, these efforts will help address misperceptions about mental wellness and fitness for duty, while reducing barriers that interfere with obtaining treatment and healthcare, getting pilots the help they need, maintaining pilots' livelihoods,

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<sup>1</sup> Hoffman et al. 2022. Healthcare Avoidance in Aircraft Pilots Due to Concern for Aeromedical Certificate Loss. *J Occup Environ Med.* 64(4):e245-e248.

aiding employers in understanding the readiness of their workforce - and, most importantly, enhancing safety.

### Building an Aviation Workforce for the Future

While safety is the cornerstone to the success of the aviation industry, the sector cannot thrive without a strategic approach to attracting and retaining the next generation of skilled professionals across all capacities. Aviation is currently facing a shortage of qualified pilots, technicians and other workers. According to the Boeing company, more than 600,000 new pilots and technicians are needed to address projected growth in the next 20 years.

NBAA applauds congressional approval of the Promoting Service in Transportation Act, which was passed into law through the Infrastructure Investment and Jobs Act (IIJA).

Through targeted public service announcements authorized by the Transportation Workforce Outreach Program in the IIJA, we will start a new dialogue on transportation careers, focusing on the availability of advanced technology and good-paying jobs today. With continued growth and demand for STEM workers, we must remain competitive by educating students about the exciting innovations and technologies under development in the transportation industry. We support the full \$5 million appropriation for this program and appreciate the efforts of this Committee with House Appropriators.

We look forward to building on programs from the 2018 FAA bill, including grant programs to support the education of future aircraft pilots and the recruitment of much-needed aviation maintenance technicians. Carefully reviewing and adopting recommendations of the Youth Access to American Jobs in Aviation Task Force and the Women in Aviation Advisory Board will be an excellent starting point for additional workforce provisions.

At our largest event, NBAA-BACE, we host a "Careers in Business Aviation Day" that provides workforce development programming as part of the "Collegiate Connect" initiative. We continue these efforts at NBAA's regional events and targeted educational programs by offering student-focused programming to educate young people about the many career opportunities in business aviation. Through partnerships with non-profit organizations, NBAA is also helping to expose, recruit and retain new professionals from underrepresented communities. These initiatives will help to ensure that the industry remains competitive and reflects a more diverse workforce.

NBAA also actively sponsors targeted initiatives to attract, develop and retain underrepresented segments of the population. This includes our sponsoring partnership with The Red Tail Flight Academy, whose volunteer leaders focus on recruitment that bolsters diversity within the aviation industry, including free training for future pilots. We are pleased that this program, inspired by the Tuskegee Airmen, graduated its first class of future leaders last year. We are also a proud partner with Flying Classroom, a program launched by aviation pioneer Barrington Irving that aims to teach all students about careers in Science, Technology, Engineering and Mathematics.

### Meeting the Mission of Safety and Efficiency

The FAA's mission is to provide the safest, most efficient aerospace system in the world. To meet that mission, the agency must continually review and improve its processes and systems.

Over the last few years, a significant backlog has developed in a number of areas, including medical certification, aircraft registry, letters of authorization and other approvals. These delays slow commerce and detract from the agency's mission.

There is an opportunity to enhance efficiency while at the same time providing new tools to FAA managers to improve work flows, troubleshoot and maintain accountability, by transitioning analog processes to digital platforms. Digitizing the application process for review and approvals of certification, registration, Petitions for Exemption and Letters of Authorization would greatly improve efficiency at the FAA. Moving to a digital environment would deliver processing efficiencies that would benefit both the workforce and industry services and increase transparency for both the FAA and industry. Under FAA reauthorization, the NBAA recommends that the Congress direct the Administrator to identify and execute three programs within the agency for digitization.

Threats to the safety and efficiency mission of the FAA have taken on an even more profound meaning when the agency has been faced with the government shutdowns that have taken place in recent years. When such a scenario presents itself, several weeks and countless work hours prior to a looming shutdown are spent preparing each of the FAA's lines of business for the lapse in federal spending and the inevitable, devastating disruptions to the FAA's core functions.

If a shutdown does come to pass, thousands of FAA employees are furloughed, delaying training, pilot certifications and safety authorizations, and halting the movement of new aircraft into service. In short, on several levels, an agency shutdown amounts to an alarming safety concern.

Some steps have been taken to address this concern; for example, NBAA appreciates the committee's work in deeming the FAA's Aircraft Registry an essential service under the FAA Reauthorization Act of 2018. That said, further steps need to be taken to provide for the continuity of business at the agency, and solutions are available.

For example, during a shutdown, taxes continue to be paid into the Airport and Airway Trust Fund, which could be used to continue operations, or pay FAA employees. NBAA urges Congress, under the FAA Reauthorization, to provide the agency with additional flexibility to use trust fund revenues to continue operations during a government shutdown.

The United States has a treasured asset in the National Airspace System. It is unmatched around the world in its size, diversity of users, complexity of airspace and safety record.

Our aviation system, as a public asset, is best overseen by the federal government and Congress to serve all Americans. Congress should codify that the U.S. aviation system should be managed efficiently, safely, and provide access for all stakeholders by leveraging proven tools and airspace-management techniques to address recurring challenges such as weather, congestion, equipment failure and national emergencies, even as we continue to transform the aviation system to meet the needs of the future.

#### Applying the FAA's Gold Standard to New Entrants

America has a unique opportunity to enhance its gold standard in aviation safety and export its approach to safety globally through the safe and efficient integration of new technologies including Advanced Air Mobility or electric vertical lift and takeoff (eVTOL), unmanned aircraft systems and electric aircraft, among other new technologies.

Modern aviation was born on America's shores with the first powered flight in Kitty Hawk, North Carolina. We led the transition from piston engines to the jet age. We pioneered air traffic control technology and airspace policies that created the safest, most efficient and most diverse air traffic system in the world. Our robust aviation infrastructure is unparalleled and our workforce, while greatly affected by the COVID pandemic, remains the most agile, innovative and sought-after in the world. We have the potential to continue to lead the next phase in the evolution in aviation with AAM, the public demand is high, but competition with other nations to be first is fierce and rapidly advancing.

Among other considerations, this means the FAA will need to keep pace with the type certifications and promised regulatory schedule, so that the first AAM commercial operations can occur as soon as 2024. Transparency, predictability and accountability are key markers on this path. The FAA should enable utilization of existing infrastructure to accommodate initial operations, and focus on hiring the workforce with the right technical expertise to facilitate the safe integration of new technologies.

Achieving these milestones over the next five years will be critical, if we are to fully scale this promising new technology, and NBAA is pleased to know that this Committee will include a New Entrants title in FAA Reauthorization to help achieve this goal.

In short, we stand at a pivotal juncture—the investments and policy decisions we make today will determine whether we harness the full safety, economic, environmental and national security potential of AAM and maintain our position as a global leader in aviation and aerospace.

#### Aviation Safety in Focus on the Horizon

The next FAA reauthorization will require new ways of thinking about aviation safety in order to prepare for ever-more complexity: new entrants, new technologies, new flight-mission profiles, new infrastructure needs. Here are three guiding principles for ensuring America’s continued safety leadership in the global aviation system:

1. Strengthen and improve critical FAA systems to meet the agency’s mission of safety and efficiency and maintain the America’s position as the global leader in aviation through a strategic approach that includes: digitizing the aircraft registry and pilot medical certification systems; establishing clear goals and accountability measures for the implementation of the Federal Notam System (FNS); and coordinating the timely delivery of type certifications and regulations to enable the integration of Advanced Air Mobility and other new technologies;
2. Implement strategic solutions to bolster the workforce and attract and retain the next generation of skilled aviation professionals across the industry to ensure the nation’s gold standard in safety;
3. Mitigate the serious safety and security threat that emerged with Automatic Dependent Surveillance Broadcast (ADS-B) by making improvements to the Privacy ICAO Address (PIA) program.

The general aviation community appreciates the work of this Committee on the 2018 Reauthorization, which set the stage for many of the next-generation developments we are witnessing. Our industry looks forward to continued engagement as we develop policy solutions that strengthen our unrivaled national airspace system, sustain vigilance across the industry on safety and maintain the role of the United States as the world leader in aerospace.

NBAA appreciates this Committee's continued leadership and willingness to engage with all stakeholders on priorities for a long-term FAA reauthorization bill, and we look forward to a robust discussion about aviation safety.