

**Committee on Transportation and Infrastructure  
United States House of Representatives**

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**FAA Reauthorization: Issues in Modernizing  
and Operating the Nation's Airspace**

**Statement of  
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### **Statement Highlights:**

1. The general aviation (GA) industry is under stress. Over the past decade, the private pilot population has been shrinking at a rate of more than 6,000 pilots per year. High costs and a lack of new products have reduced public interest in GA. The general aviation fleet has an average age of more than 40 years and most aircraft rely on technology that is decades old.
2. Long-term FAA Reauthorization is needed. Enactment of a long-term reform-minded FAA bill is important to help the FAA keep pace with rapid advancements in technology and complete important safety and modernization projects.
3. Third-class medical reform is long overdue. The general aviation community has waited too long for the FAA to expand the use of a medical standard that has been used successfully and safely by some pilots for more than 10 years.
4. Certification and regulatory reform are needed. The FAA's regulatory and certification processes are cumbersome and overly prescriptive and must be reformed to ensure that advanced technologies and safety improvements reach GA aircraft and operators.
5. The FAA's Automatic Dependent Surveillance-Broadcast (ADS-B) mandate is too costly. The FAA must work with industry and manufacturers to identify low-cost solutions to ensure that a large segment of the general aviation community can equip to meet the FAA's Jan. 1, 2020 deadline.

### **General Aviation Today**

The Aircraft Owners and Pilots Association (AOPA) is general aviation's largest and most influential membership association. AOPA's mission is to effectively represent the interests of its members as aircraft owners and pilots concerning the economy, safety, utility, and popularity of flight in general aviation aircraft.

General aviation (GA) is a quintessentially American industry that comprises all flying outside of military and airline operations. Each year it contributes \$150 billion to the U.S. economy, moves 170 million passengers, and supports 1.2 million jobs. General aviation activity takes place from 5,200 public-use airports, including 3,380 that are part of the National Plan of Integrated Airport Systems

and are eligible to receive federal funding, as well as some 13,000 privately owned landing facilities.

But general aviation is facing a challenging environment that threatens to seriously compromise its economic contributions and long-term viability.

Over the past decade, the private pilot population has declined at a rate of more than 6,000 pilots per year. At the same time, the number of new single-engine piston-powered aircraft being produced in the United States has fallen dramatically, from 14,398 in 1978 to just 674 in 2013. As the number of new aircraft being produced has fallen, so has the value of the aging fleet. Today, more than 81,000 of the 188,000 certified piston-powered aircraft on the FAA registry are worth \$40,000 or less, and those aircraft have a weighted average value of \$25,800. Manufacturers and businesses providing flight training, aircraft rental and repair, engine overhauls, fuel, and other products and services all are impacted by this decline.

Unfortunately, public interest in general aviation is shrinking due to a lack of new products, high costs, and low perceived value. Advancements in technology have outpaced the FAA's ability to keep up. While the technology to make new and existing aircraft easier and safer to fly exists today, it is largely unavailable to pilots and aircraft owners as a result of a regulatory environment that hampers innovation, slows the adoption of advanced technology, and imposes high costs on both manufacturers and users of general aviation equipment.

These realities are highlighted by the fact that the general aviation fleet has an average age of more than 40 years and most aircraft rely on technology that is decades old. Widespread availability of modern equipment could make flying much easier, safer, and less expensive, giving the industry a much-needed boost at every level.

What is needed is an FAA that can keep pace with and enable the cost-effective and streamlined adoption of new technology such as electronic flight displays, digital autopilots, and advanced engine monitoring to enhance safety and keep GA competitive.

Without significant changes, it seems likely that general aviation as an industry will continue to decline and U.S. aircraft manufacturing will go the way of other once prominent industries such as textiles and steel.

When the FAA works closely with stakeholders to ensure that the regulatory environment meets the needs of system users, the result can be a partnership that effectively addresses changing needs and technology. For instance, the Piston Aviation Fuels Initiative, a government industry partnership, is moving steadily toward identifying and certifying one or more unleaded fuels for use in general aviation. Similarly, efforts to reform Airman Certification Standards have been highly successful thanks to close coordination between the FAA and GA industry.

While the general aviation community continues to make progress on safety through educational and outreach efforts, much more can be achieved by bringing advanced technologies into the cockpit of both new and old aircraft of all types.

**FAA must adapt its practices, policies, and procedures to match the realities of today's environment**

The United States enjoys the safest National Airspace System in the world, and the FAA and its controllers play a critical role in ensuring that safety. However, in other areas, the FAA's bureaucratic processes are hampering growth, preventing incremental safety enhancements, and ultimately increasing the cost to participate in general aviation without providing commensurate safety benefits.

General aviation needs aircraft that are simpler and safer to fly in order to spur greater participation and growth. Although technologies that could modernize the existing fleet and transform future aircraft are advancing rapidly, the FAA regulatory and certification processes are unable to keep pace, forcing the aviation community to wait, for years or even decades, to benefit from newer technologies. To support future growth and improved safety in general aviation, the FAA must revise not only its regulations, policies and guidance, but also its entire approach to general aviation oversight.

Over the years, this Committee has given the FAA both the resources and the tools necessary to carry out its mission. In fact, Congress has funded the FAA generously, increasing the FAA's budget by more than 500% since 1980 even as the number of agency employees has decreased. The system of funding the FAA through excise taxes collected on fuel, rather than a user-fee system, has proven both efficient and effective. And the FAA's nearly \$16 billion budget gives the agency sufficient resources to make needed changes in the way it oversees general aviation. The challenge facing the FAA is to use those resources to focus on its core mission, meet the needs of stakeholders, and improve efficiency organization wide.

While the FAA's desire to create a "gold standard" for safety is admirable in theory, in practice this approach of holding every change to the highest standards has had the unfortunate effect of delaying or preventing incremental safety improvements. Rather than try to eliminate every aspect of risk through the regulatory and oversight processes, the FAA would better serve the aviation community by working to manage and reduce risk.

Allowing products that offer incremental safety improvements to reach the market more quickly through a streamlined process would lower costs, simplify flying, and ultimately improve safety while boosting participation in GA. The automobile industry is a positive example of how, when allowed, technology can improve safety, enhance performance, and increase reliability while at the same time lowering costs. Today, too many promising safety advances are kept out of the cockpit while the FAA attempts to regulate away all potential risk associated with their use.

By implementing the concept of a safety continuum and moving away from a "one size fits all" approach, the FAA can ensure that general aviation safety continues to improve while the industry itself has the opportunity to grow.

**The general aviation community has waited too long for medical reform**

In March 2012, AOPA and the Experimental Aircraft Association (EAA) jointly petitioned the FAA to change the medical certification process for private pilots flying recreationally. The groups asked the FAA to expand the use of a standard that has been employed successfully by Sport Pilots for more than a decade. That standard allows pilots to fly recreationally without going through the cumbersome third-class medical process. Since the medical reforms instituted by the FAA for Sport Pilots have proven to be both safe and cost-effective, the general aviation community asked that the FAA take the next logical step and expand those reforms to apply to more pilots.

Under current rules, private pilots flying recreationally must undergo an exam by an FAA Aviation Medical Examiner (AME) once every five years for pilots under the age of 40 and once every two years if the pilot is 40 or older. Although virtually all medical applications are ultimately granted, thousands of applications are initially deferred each year. Affected pilots must then go through extensive testing and wait, often for months, for the FAA's Medical Branch to review and approve their applications. This process can cost pilots thousands of dollars in additional medical testing and months of time grounded while they wait. The difficult and costly process deters thousands of pilots who would ultimately be deemed medically fit to fly from even applying for a medical certificate. Many of these pilots stop flying altogether, further weakening the general aviation industry.

Members of Congress, recognizing the need for reform, have introduced legislation in both the House and Senate, known as the General Aviation Pilot Protection Act (GAPPA). GAPPA now has more than 150 co-sponsors in the House and 20 in the Senate. AOPA strongly supports this legislation and would like to see it included in the next FAA Reauthorization bill.

In the face of this strong legislative push for change, the FAA announced in April that it would pursue rulemaking to reform the third-class medical process and has completed its draft rule. The general aviation community is now anxiously awaiting the opportunity to review and comment on that proposed rule, which is currently undergoing review by the Department of Transportation (DOT) and Office of Management and Budget (OMB).

The fact that it has taken almost three years, and counting, for the FAA to review and analyze what is simply a limited expansion of an existing policy approved and successfully implemented more than a decade ago, highlights the need to reform the FAA's processes and procedures.

In 2007, the FAA estimated the cost to a pilot for a medical exam to be \$321. Adjusted only for inflation, today's average cost to a pilot for a medical exam is \$371. Coupled with an industry estimate of 180,472 pilots that would be able to fly without a third-class medical, pilots would save \$24.6 million every year. A conservative estimate also shows an annual savings of \$1.9 million to the FAA.

In a survey of the members of the Flying Physicians Association, an organization of doctors who fly including many FAA Aviation Medical Examiners (AMEs), 80 percent of respondents said they believe the third-class medical system is not necessary and does not improve safety.

And many other organizations also support medical reform, including AOPA and EAA, the AOPA Medical Advisory Board, the General Aviation Manufacturers Association, Helicopter Association International, the National Agricultural Aviation Association, the National Air Transportation Association, and the National Business Aviation Association.

Many in the aviation community have attested that medical reform also has the potential to improve safety by keeping pilots in the airplanes they are most familiar with, giving them tools to assess their fitness to fly, and fostering more honest and open interactions with their primary care physicians.

**Changes to the equipment certification process are needed to make safety improvements to the general aviation fleet**

Since 2008 the FAA, Congress, and industry have been working to streamline and simplify Part 23 certification standards, which cover the manufacturing and

alteration of aircraft. Although change is under way, it is moving slowly. Earlier this year the FAA announced that it would not meet the deadline set by the Small Airplane Revitalization Act (SARA). SARA was signed into law one year ago this month and requires the FAA to reform and streamline Part 23 by Dec. 31, 2015.

FAA regulations with regard to the manufacture and modification of general aviation aircraft are highly prescriptive and designed to address, in exhaustive detail, very specific situations or circumstances. As a result, they offer little or no flexibility to adapt to evolving technologies and new situations.

To illustrate the complexity of these rules, note that between 1994 and 1996, approximately 800 rule changes to Part 23 were enacted. These changes largely addressed the needs of sophisticated aircraft, but simultaneously added regulatory layers to the compliance process, which increased the cost to certify a simple airplane while limiting the possibility of introducing innovations or new technologies.

In part because of the increasingly complex and expensive regulatory requirements facing manufacturers, the number of single-engine piston-powered aircraft produced in the United States each year has fallen precipitously. In 1978, U.S. manufacturers shipped 14,398 such aircraft. In 2013, that number was just 674, according to the General Aviation Manufacturers Association. By contrast, approximately 1,000 new experimental amateur built aircraft, which do not have to comply with Part 23 regulations, are currently being registered each year.

Because of the low numbers of new certified aircraft being produced, general aviation will continue to rely on the legacy fleet for many years to come. Today, there are approximately 188,000 piston-powered general aviation aircraft registered in the United States. Although they average more than 40 years of age and have a wide variety of equipment, with proper maintenance, and the ability to upgrade systems, these aircraft can continue to be flown safely for many years to come.

To fully realize the benefits of increased safety and reduced certification costs that Part 23 reform is intended to achieve, the regulations, orders, and policies for

retrofitting existing aircraft with new equipment must also be streamlined and transformed.

While there are upgrade and modernization options available today, most require FAA approval for design, production, and installation into certified aircraft. Manufacturers must acquire these approvals for individual makes and models, significantly increasing the cost and reducing the availability to the consumer.

As an example of how regulatory requirements can slow the adoption of safety equipment, consider that it took nearly three years for the FAA to release a recent policy that streamlines the approval of angle of attack (AOA) indicators for existing aircraft. An AOA indicator is an important safety technology that could help reduce the number of accidents caused by loss of control—the leading cause of general aviation accidents. Retrofit of this technology has been slowed by the high cost, which in turn, has been largely driven by regulations.

**The cost of compliance must come down if general aviation is to meet the FAA’s Automatic Dependent Surveillance-Broadcast (ADS-B) Out mandate**

The FAA has set a deadline of Jan. 1, 2020 for all aircraft to equip with ADS-B Out technology in order to continue flying in the busy airspace near major cities or large airports—airspace where pilots must now use a Mode C transponder which allows air traffic controllers to see the aircraft’s altitude on radar.

Aircraft owners will be required to maintain their Mode C transponders and install ADS-B Out equipment. This equipment transmits information about an aircraft’s altitude, airspeed, velocity, and location to ground stations allowing air traffic controllers to “see” the aircraft in real time.

For a large segment of the general aviation community, the cost of the required ADS-B Out equipment is the greatest barrier to adoption. More than 81,000 of the 188,000 certified piston-powered aircraft on the FAA registry are worth \$40,000 or less, and those aircraft have a weighted average value of \$25,800. That puts

investing at least \$5,000-\$6,000 to install equipment that will only allow aircraft to operate in the same airspace they use today well beyond the reach of many owners.

Without changes, we will see many of these airplanes and their pilots stop flying on Jan. 1, 2020, further accelerating the already alarming losses in the GA community and creating an economic shock that could seriously damage thousands of small aviation businesses nationwide.

The issue of cost was raised by AOPA in formal comments to the FAA as far back as 2008, but has yet to be satisfactorily addressed, in part because the FAA has pursued a “one size fits all” approach to equipage.

While equipment manufacturers have met the requirements set out by the FAA, these requirements were intended for the commercial airlines—one reason the cost of equipment is so high. At the same time, technology has changed, creating new, alternative possibilities for equipage.

AOPA believes the cost issue can be effectively resolved, but doing so will require alternative solutions.

At its recent summit on ADS-B equipage, the FAA examined the barriers to meeting the mandate. We appreciate the agency’s effort to understand the general aviation community’s concerns and its willingness to acknowledge that cost continues to be a significant barrier to equipage. We look forward to working closely with FAA and industry to find solutions that will ensure near universal participation in ADS-B Out by the general aviation fleet.

However we remain concerned about a recent Department of Transportation Inspector General’s report that found the FAA’s implementation of ADS-B continues to suffer from delays, cost overruns, and technical problems that make it difficult for the FAA to fully justify taxpayers’ more than \$6.5 billion investment in the system. Among the other problems identified were technical and training issues, coverage gaps that could require an additional 200 ground stations, and the need to upgrade automation systems at more than 230 air traffic control facilities before the ADS-B ground infrastructure will provide benefits.

ADS-B is not the only element of the NextGen air traffic modernization effort that has struggled with significant cost overruns. In 2012, a Government Accountability Office audit found that 11 of 30 key NextGen contracts had exceeded projected costs by \$4.2 billion. Similarly, as far back as 2000, the House Aviation Subcommittee held a hearing to discuss the more than \$500 million in cost overruns in the Wide Area Augmentation System implementation.

Given the persistent NextGen cost overruns and implementation problems, it is critical that Congress closely monitor the FAA's modernization program during the reauthorization process and beyond.

### **Conclusion**

In conclusion, the future of the general aviation industry depends significantly on the FAA working closely with its industry partners and changing the way it manages its responsibilities with regard to regulation and oversight. Long-term reauthorization legislation is needed to ensure the FAA has the stability and resources to carry out important initiatives.

To avoid adding to the stressors now facing general aviation, we encourage Congress, as it works through the Reauthorization process, to ensure the FAA has both proper oversight and direction to consolidate functions, improve efficiency, and direct resources where they are needed most.

By moving away from a one-size-fits-all approach and toward a system that focuses on managing rather than eliminating risk, the FAA can help support the general aviation industry while finding pathways to achieve timely and economical safety improvements.

AOPA looks forward to continued partnership with Congress, the FAA, and others in the general aviation community to right-size regulations, streamline the regulatory process, consider new approaches to lowering costs and barriers to

participation in aviation, and take other steps to developing a culture that supports general aviation and enhances safety.

On behalf of the nearly 350,000 members of AOPA, we appreciate your leadership in addressing future funding for the FAA and the agency's impact on its stakeholders.

Thank you for the opportunity to appear before this committee.