Before the Subcommittee on Aviation Operations, Safety and Security

United States Senate

Statement of
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On

"FAA Reauthorization: Aviation Safety and General Aviation"

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Statement Highlights:

1. General Aviation (GA), a national asset, has experienced decades of decline. An aging fleet of aircraft coupled with a decreasing pilot population has put the future of GA at risk.
2. GA safety has experienced significant improvements over the past few decades but we must work together to further mitigate the known risks. Industry is leading several initiatives that have the potential to positively transform aviation safety.
3. The future of GA is at a critical juncture. Years of decline can be reversed through a right-sized regulatory environment as well as grassroots programs that lower the cost of participating in general aviation and encourage more people to become involved.

The Aircraft Owners and Pilots Association (AOPA) has more than 350,000 members nationwide. As a not-for-profit individual membership organization, 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 (GA) aircraft.

General Aviation, a national asset, has experienced decades of decline

General aviation is a quintessentially American industry that comprises all flying outside of military and airline operations. In 2013, 255,000 full- and part-time workers were directly employed in general aviation. Including indirect, induced, and enabled impacts, general aviation, in total, supported 1.1 million jobs and $219 billion in output. 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.

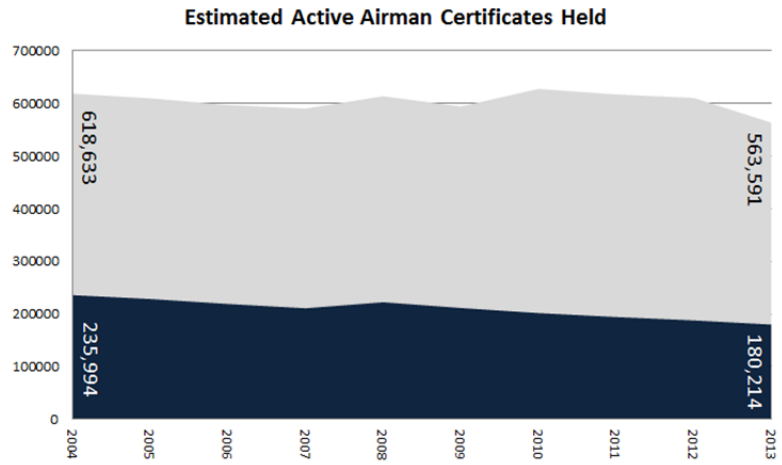
A national asset, GA must be not only protected but encouraged, promoted, and fostered. Yet, far too often, it is viewed as unsafe, only for the nation's elite, or marred by those who operate well outside the bounds of the existing regulatory structure or even common sense. I'm here to tell you that GA is absolutely something to be enjoyed by all—people of all ages and professions, from every walk of life, background, culture, and location. But I will also tell you that we are at a critical point if we are to ensure the future health of GA.

In a 1995 Notice of Proposed Rulemaking (NPRM), the FAA published a policy statement on General Aviation. In it, the FAA Administrator recognized that the general aviation industry is a critically important part of the nation's economy and the national transportation system. He went on to state that -

> General aviation plays a crucial role in flight training for all segments of aviation and provides unique personal and recreational opportunities. It makes vital contributions to activities ranging from business aviation, to agricultural operations, to Warbird preservation, to glider and balloon flights. Accordingly, it is the policy of the FAA to foster and promote general aviation while continuing to improve its safety record. These goals are neither contradictory nor separable. They are best achieved by cooperating with the aviation community to define mutual concerns and joint efforts to accomplish objectives. We will strive to achieve the goals through voluntary compliance and methods designed to reduce the regulatory burden on general aviation.

But since that statement was made, those goals have been separated and the mandate to foster and promote general aviation no longer exists. We at AOPA and our partners in industry have since taken the baton, but we must acknowledge that the removal of the dual mandate has, inevitably, had negative consequences for our industry.

Over the past decade, the private pilot population has declined at a rate of more than 6,000 pilots per year. In 2004, the FAA estimated that there were 235,994 active private pilots. In 2013, the last year for which we have data, that number had dropped to 180,214, a reduction of more than 23%.



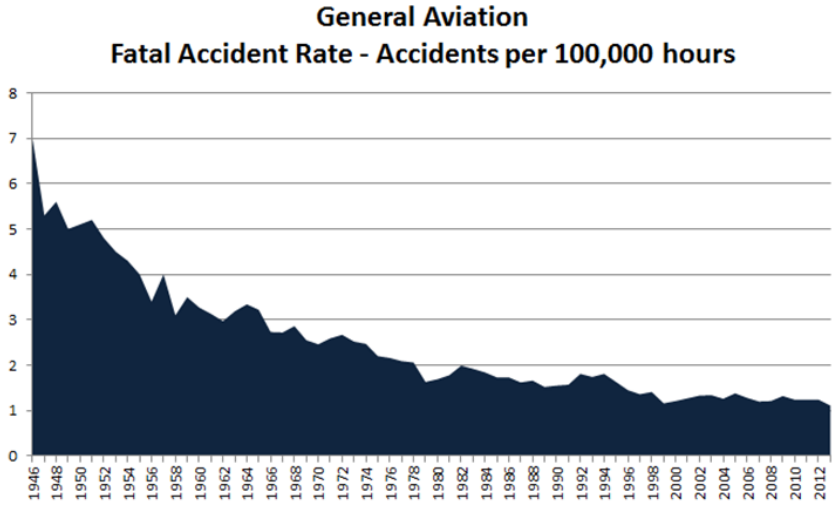
At the same time, the number of new single-engine piston-powered aircraft being produced has fallen dramatically, from 14,398 in 1978 to just 716 in 2014. As the number of new aircraft being produced has declined, the purchase price has risen steeply while the value of the aging fleet has fallen. Today, 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, yet a new, single-engine airplane will cost a pilot in excess of $500,000 – well outside the reach of most American families.

The numbers speak for themselves but AOPA and others are working hard to turn the tide and once again grow general aviation.

Safety continues to improve

General Aviation safety continues to improve. Our community has made great strides over the past several decades, and we will continue to work collaboratively toward making our already safe system even safer.

Unfortunately, we continue to see accidents resulting from similar causes, many of which are easily preventable. We at AOPA strongly believe that GA safety has and will continue to improve through better education and technology advancements rather than as a result of more stringent government oversight, policies, or regulations.



Starting in 1940, GA had an accident rate of 7.30 fatal accidents for every 100,000 hours flown. Fast forward to 1960 and the rate was cut by more than half to 3.27 fatal accidents per 100,000 hours flown.

Although many state that the GA accident rate is stagnant, even over the past 10 years we've seen marked improvement. In the 2004 fiscal year, the FAA put the accident rate at 1.26 with a total of 1,617 accidents, 314 of which were fatal. In FY 2013 those numbers improved to 1.11, one of the lowest rates ever recorded, with a total of 1,299 accidents, 259 of which were fatal.

The majority of GA accidents, 62%, have three causes – (1) loss-of-control (LOC), (2) controlled flight into terrain (CFIT), and (3) engine failures. Loss-of-control alone accounts for more than 40% of the total accidents and has been a targeted focus of AOPA and our government and industry partners, including the National Transportation Safety Board, for the past several years.

We've made improvements but we must work to prevent similar accidents from occurring in the future.

AOPA's Air Safety Institute

The AOPA Air Safety Institute (ASI) serves as a resource to all pilots—not just AOPA members—by providing free safety education programs, analyzing safety data, offering the premier study of general aviation safety in the form of the annual Nall Report, and conducting safety research.

A trusted and respected resource, no other entity has the breadth and reach of the Air Safety Institute. ASI offers more than 300 online safety education products for free, including courses, videos, quizzes, and reports and works with industry and government partnerships to provide educational materials on critical topics. In 2014, ASI's educational outreach exceeded 2 million interactions with the pilot community worldwide through various channels, including online courses, accident case studies, publications, live seminars, and videos – all of which help pilots take advantage of the collective wisdom of the GA community.

General Aviation Joint Steering Committee

The General Aviation Joint Steering Committee (GAJSC) was launched in 1997 as part of the industry-government Safer Skies initiative to improve aviation safety. The program, which was revitalized in 2011, works to improve general aviation

safety through data-driven risk reduction efforts that focus on education, training, and enabling the installation of new equipment in general aviation aircraft.

GAJSC participants include the Federal Aviation Administration and industry stakeholders including pilot organizations, instructors, mechanics, builders and manufacturers.

AOPA has maintained a leadership role in the GAJSC since its inception and co-chaired its two most recent working groups focused on loss-of-control accidents. Using proven and effective data-driven processes, the working groups developed comprehensive safety enhancements that are actively being implemented by both government and industry.

Harmonizing with the recent NTSB focus on loss of control, these safety enhancements have the greatest potential to prevent similar accidents from occurring in the future. Additionally, they represent a partnership between government and industry to focus our limited resources and come to an agreed upon strategy to best mitigate and manage identified risks.

Integrating Unmanned Aircraft into Our Airspace

Unmanned aircraft systems (UAS) or drones have dramatically increased in numbers in recent years. Safely integrating UAS into our airspace in ways that will not compromise manned aircraft is a critical issue now facing our community. AOPA has worked closely with the FAA to ensure that regulations governing the operation of drones protect pilots and their passengers by adhering to key principals, including see-and-avoid requirements. The FAA's notice of proposed rulemaking for small commercial UAS includes important provisions to ensure safety, including limiting aircraft to line-of-sight operations, limitations on altitude and access to airspace, pilot certification and knowledge testing requirements, and aircraft registration requirements.

AOPA appreciates the FAA's current regulatory efforts and last week provided formal comments to the proposed rule that are designed to close gaps in the NPRM. In its comments, AOPA asked the FAA to lower the maximum altitude for small commercial UAS operations from 500 feet to 400 feet to provide a small buffer between manned and unmanned operations. AOPA also asked that UAS be excluded from operating in Class G airspace near airports and that UAS meet certain equipment requirements, such as having an altimeter, in order to help operators comply with restrictions.

Taken together with the rules proposed by the FAA, AOPA believes its recommendations will help minimize the potential for conflicts between manned and unmanned aircraft. At the same time, however, much work remains to be done on the issue of UAS operations. AOPA looks forward to working with FAA to address other types of unmanned aircraft and operations, including providing additional education for the operators of recreational UAS.

Airman Certification System

Although there are many strategies and initiatives in place to better reach, educate, and inform the existing pilot community, AOPA and others recognized the need to better train and test new pilots. Often viewed as a hurdle to get over on the path to a pilot certificate, the FAA knowledge test encouraged rote memorization without a solid understanding of why the material is important and how it contributes to safety.

To act upon an Aviation Rulemaking Committee's recommendations, AOPA and industry leaders embarked on a multi-year, multi-phase project to fundamentally transform the way we train and test future pilots – creating a holistic, integrated system which links the pilot certification standards, guidance, and testing.

As a result of that process, FAA tests are currently being reworked to ensure they are relevant and meaningful to today's aviator and technology. Each new certification standard will incorporate all the knowledge a pilot must have with the skills he or she must demonstrate along with the risk management elements for each task which will give the applicant the critical tools and knowledge needed to safely manage known risks. Future pilots will clearly understand what is expected of them for any certificate or rating.

Part 23 Reform

Although we, as pilots, need to ensure our flying skills are sharp before each and every flight, we must also acknowledge that we can, and must, design and produce better, smarter aircraft. The Cessna 172 being manufactured today is, other than avionics, essentially the same airplane that was designed and produced in 1955. For good reason, Ford and Chevy are no longer producing their 1955 fleets. But the costs of certification and economies of scale have slowed aircraft design advancements and improvements.

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. Last year, the FAA announced that it would not meet the deadline set by the Small Airplane Revitalization Act (SARA). SARA requires the FAA to reform and streamline Part 23 by Dec. 15, 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 aircraft. In 2014, that number was just 716. 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 so few new aircraft are being produced each year, the majority of the general aviation fleet does, and will continue to, consist of older, legacy aircraft. In fact, the average general aviation aircraft is now 45 years old. To envision how safety technology has changed, imagine a car built in 1970, long before safety innovations like airbags, crumple zones, and backup cameras were standard equipment. 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. Making modern safety equipment more widely available to the owners and operators of older aircraft will have a significant impact on safety.

While there are upgrade and modernization options available today, most require extensive and lengthy FAA approval for design, production, and installation into certified aircraft. Manufacturers must acquire these approvals for individual makes and models of aircraft, 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. Retrofit of this technology has been slowed by the high cost, which in turn, has been largely driven by regulations.

General Aviation's Future

General aviation and its future are at a critical point, evidenced by the numbers and trends I have presented to you today. It not only provides real economic value to our nation but also offers the unique experience of flight – an experience that brings delight to "kids" of all ages.

AOPA is pushing hard on several fronts to turn around the downward trend and, once again, start to grow general aviation.

Of the utmost importance to AOPA, our members and GA's future is third-class medical reform. In 2013, the FAA issued 99,268 third class medical certificates, down from 135,969 in 2004, which cost pilots more than $23.5 million with little direct benefit to either aviation safety or general health.

That money and time could be better spent in ways that have proven safety benefits, including additional training and installation of safety equipment in existing aircraft. By better educating pilots on how to properly self-assess their medical fitness to fly and fostering open and honest relationships with primary care doctors, third-class medical reform will enhance aviation safety.

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 for additional review 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 eroding the general aviation pilot population and our industry.

Members of Congress, including many of you in this room, recognized the need for reform and introduced legislation in both the House and Senate, known as the Pilot's Bill of Rights 2 (PBR2) – S.571/H.R. 1062 – which would, among other things, expand the FAA's successful sport pilot medical certification standard so that more pilots flying more types of aircraft could take advantage of this standard which has been in place for more than a decade.

Many in the aviation community have attested that medical reform 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.

We at AOPA and our members appreciate the support Congress has given to initiate third class medical reform and we look forward to crossing the finish line together.

In addition to third class medical reform, AOPA has several initiatives to grow the pilot population and increase participation in the fun side of aviation.

We are currently building a program that will launch aircraft and pilots into the skies to carry the message of our "You Can Fly" program. Bright yellow, fully restored Cessna 152s will be piloted throughout the country by AOPA Ambassadors who will help flying clubs and schools obtain the resources they need to build new pilots and keep existing pilots engaged in aviation.

Lastly, in order to help create the next generation of scientists, aeronautical engineers, aircraft designers, and innovators, AOPA is developing a program to introduce an aviation specific science, technology, engineering, and math (STEM) curriculum into our nation's high schools. With only 16% of American high school seniors proficient in mathematics and interested in a STEM career, we are doing our part to present aviation as a viable career choice.

Conclusion

In summary, I have come here today to seek your help and assistance. General Aviation and our industry need your help to right-size the regulatory environment and create one that fosters innovation, encourages participation, and inspires the next generation of aviators while ensuring that safety remains our top priority. On behalf of the more than 350,000 members of AOPA, we appreciate your leadership and we look forward to working with you on the Pilots Bill of Rights 2, and the upcoming FAA reauthorization, – both of which stand to put our industry into a much needed climb.

Thank you for the opportunity to appear before this subcommittee.