THE FAA'S IMPACT ON SMALL BUSINESSES IN THE GENERAL AVIATION INDUSTRY

HEARING

BEFORE THE

COMMITTEE ON SMALL BUSINESS
UNITED STATES
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

SECOND SESSION

HEARING HELD
FEBRUARY 5, 2014

Small Business Committee Document Number 113–053
Available via the GPO Website: www.fdsys.gov

U.S. GOVERNMENT PRINTING OFFICE
86–618 WASHINGTON : 2014

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

HOUSE COMMITTEE ON SMALL BUSINESS

SAM GRAVES, Missouri, *Chairman*
STEVE CHABOT, Ohio
STEVE KING, Iowa
MIKE COFFMAN, Colorado
BLAINE LUETKEMER, Missouri
MICK MULVANEY, South Carolina
SCOTT TIPTON, Colorado
JAIME HERRERA BEUTLER, Washington
RICHARD HANNA, New York
TIM HUELSKAMP, Kansas
DAVID SCHWEIKERT, Arizona
KERRY BENTIVOLIO, Michigan
CHRIS COLLINS, New York
TOM RICE, South Carolina
NYDIA VELÁZQUEZ, New York, *Ranking Member*
KURT SCHRADER, Oregon
YVETTE CLARKE, New York
JUDY CHU, California
JANICE HAHN, California
DONALD PAYNE, JR., New Jersey
GRACE MENG, New York
BRAD SCHNEIDER, Illinois
RON BARBER, Arizona
ANN McLANE KUSTER, New Hampshire
PATRICK MURPHY, Florida

LORI SALLEY, *Staff Director*
PAUL SASS, *Deputy Staff Director*
BARRY PINELES, *Chief Counsel*
MICHAEL DAY, *Minority Staff Director*

CONTENTS

OPENING STATEMENTS

WITNESSES

APPENDIX

THE FAA'S IMPACT ON SMALL BUSINESSES IN THE GENERAL AVIATION INDUSTRY

WEDNESDAY, FEBRUARY 5, 2014

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SMALL BUSINESS,
Washington, DC.

The Committee met, pursuant to call, at 1:00 p.m., in Room 2360, Rayburn House Office Building. Hon. Sam Graves [chairman of the Committee] presiding.

Present: Representatives Graves, Chabot, Luetkemeyer, Tipton, Hanna, Schweikert, Collins, Velázquez, Schrader, and Payne.

Chairman GRAVES. Today we are going to examine the general aviation industry, and in particular, just how the regulatory environment for small businesses in general aviation is inhibiting growth, and in some cases, threatening the solvency of small operations. General aviation is undoubtedly a small business issue. The Small Business Administration estimates that almost 95 percent of all businesses providing air transport services are small.

The industry consists of about 223,000 aircraft in the U.S. carrying 166 million passengers to 5,000 public airports. Many of which have no scheduled commercial service. According to the National Air Transportation Association more than two-thirds of these 25 million flight hours per year are for business purposes.

In addition to the volume of its flights, the industry is a huge economic driver. If you take into account both operations and manufacturing, general aviation employs about 1.2 million people, and contributes approximately 150 billion dollars to the overall GDP. In 2012 alone general aviation manufacturers generated 4.8 billion dollars in exports of domestically manufactured aircraft equipment.

There is no question that the general aviation industry is a very significant part of the national economy. Despite the industry's contribution to the economy, general aviation is facing some economic challenges. In recent years rising fuel costs, the decline in the number of pilots in the United States, coupled with the drop off in airline production has left the industry vulnerable. Given this, it is critical that the needs of small operators are understood by those who are regulating the industry. Unfortunately this is not the case.

Many in the industry see the Federal Aviation Administration as out of touch, and the Agency's inefficient nature and arbitrary decision making is a real problem for small operators. Whether it is delays in the aircraft certification process or it is the inability for the FAA to implement new technologies to enhance safety, or the inconsistencies and air-worthiness standards from region to region, small general aviation businesses are negatively affected.

We are fortunate enough today to have a group of small businesses in the general aviation industry. I look forward to learning first-hand how the FAA's regulatory regime is affecting their operations.

With that I would definitely like to thank our distinguished group of panelists for being here and coming in today. I will now turn to ranking member Velázquez for her opening statement.

Ms. VELAZQUEZ. Thank you Mr. Chairman. The U.S. economy is both vibrant and complex resulting in an ecosystem of businesses, suppliers, and consumers crisscrossing the nation. For small businessmen and women this may mean traveling at a moment's notice sometimes to towns not served regularly by commercial airlines. As a result general aviation and the flexibility it provides plays a key role in our nation's economy. In fact, general aviation directly generates more than 20 billion dollars annually, and has an overall economic impact of nearly 80 billion dollars, employing nearly half a million workers. This contribution will grow as the economy continues to recover.

Essential to this sector's success is ensuring the safety of its pilots, passengers, and those who live near airports. According to the National Transportation Safety Board there were 1,071 general aviation accidents in 2012 with 432 fatalities. Conversely, U.S. commercial airline operations were fatality-free. Pursuing policies that improve safety are necessary, but they must be data driven and examined so they do not create excessive burdens for the industry and the workers that they employ.

With this goal in mind the FAA is undertaking several non-regulatory efforts to reduce general aviation accident fatalities by 10 percent. This strategy emphasizes training and outreach while focusing resources on the highest risk activities of general aviation. During today's hearing I am particularly interested in learning whether these airports are producing meaningful change within the industry.

On the regulatory front several issues before the FAA could affect safety. This includes a petition by industry groups to exempt pilots from the third-class medical certificate. While it appears the safety data is available for the FAA to make a decision, they have not responded causing frustration to many of those in this room.

In addition, aircraft certification remains a flashpoint for the Agency. Not unlike other areas of government, the FAA has reported that it has a backlog of more than 1,000 certificate applications which are required for repair stations, flight school, and charter operations. Of that backlog over 130 have been waiting for more than 3 years. At least one has been delayed for more than seven years. These delays prevent new businesses from opening, and existing enterprises from expanding.

All of these issues have one thing in common, they are largely dependent on the FAA's budget. For FY 2014 the FAA received 12.4 billion dollars, 168 million less than the year before. Sequestration and budget politics have made aviation a "hot potato" lurching from crisis to crisis.

In April of last year air traffic controller furloughs led to flight delays. Then in October 12,000 FAA employees were furloughed for 16 days. So if you are wondering why the FAA has not gotten back

to you or has a large backlog, I think we all know the answer. The truth is that budget cuts, sequestration and shut-downs affect all areas of government, and aviation is no exception.

However with that said we must try to do what we can to ensure the general aviation industry remains strong in light of these current fiscal challenges. It plays an important role in the U.S. economy particularly for areas that lack other transportation infrastructure, and is poised to grow stronger over the next 20 years. Through its presence it not only creates jobs, but also serves as an economic anchor for many rural communities. I think the panel of witnesses for traveling here today, and I look forward to their testimony. I yield back.

Chairman GRAVES. With that we are going to open it up to our witnesses. We do have a series of votes that are scheduled between 1:30 and 1:45, as it turns out, approximately five votes. I think we can get through our witnesses and then we will break and come back if that is all right with everybody.

Our first witness is John Uczekaj who is the President and CEO of Aspen Avionics in Albuquerque, New Mexico. John has over 33 years of experience in the avionics industry, and he started out as an engineer at Boeing before moving into management positions at Sperry and Honeywell.

Immediately prior to joining Aspen John was the President and COO of NORDAM Group, an aviation parts manufacturer and maintenance company. In January of 2013, John was name Entrepreneur of the Year by the Living Legends of Aviation. He holds a bachelor's degree in electrical and computer engineering from Morgan State University, and an MBA from City University in Seattle, Washington.

He is testifying on behalf of the General Aviation Manufactures Association. Thanks for being here, Mr. Uczekaj.

STATEMENTS OF JOHN UCZEKAJ, PRESIDENT AND CEO, ASPEN AVIONICS, INC.; AUSTIN HEFFERNAN, OWNER AND MANAGER, ROYAL AIRCRAFT SERVICES; JAMAIL LARKINS, PRESIDENT AND CEO, ASCENSION AIRCRAFT, INC.; KENNETH J. BUTTON, UNIVERSITY PROFESSOR, SCHOOL OF PUBLIC POLICY, GEORGE MASON UNIVERSITY, DIRECTOR, CENTER FOR TRANSPORTATION POLICY OPERATIONS AND LOGISTICS

STATEMENT OF JOHN UCZEKAJ

Mr. UCZEKAJ. Chairman Graves and ranking member Velázquez and distinguished members of the Committee, I really appreciate the opportunity to appear before you today to discuss the impact of the FAA on small business.

My name is John Uczekaj as Congressman Graves says. I am President and Chief Executive of Aspen Avionics in Albuquerque, New Mexico. I also serve on the Board of Directors of the General Aviation Manufactures Association, and I am also Chair of the Flight Operations Policy Committee. I am really honored to give this testimony on their behalf as well today. I am also an instrument rated pilot and owner of an aircraft.

Aspen was founded in 2004 and was founded by two aviation enthusiasts from Albuquerque with the mission of designing and manufacturing low-cost avionics for primary flight displays and multi-function displays for the lower end of the industry.

In 2008 we delivered our first product which was a primary flight display which was groundbreaking in the general aviation industry as it brought technologies that up to now had been really reserved for the higher-end of the aircraft business jets and air transport aircraft.

Our products bring electronic displays to the cockpit. Three dimensional terrain awareness is a platform for NextGen, display of NextGen, and modification of NextGen data, and really provides a wide range of functionality.

We have 47 employees, and our entrepreneurial spirit is really the key to our success. We have been able to do quite a bit in a very short period of time. We have now 6,000 aircraft installed throughout the world, 27 percent of our business is done international.

But also the key to our success is really discipline and managing costs and delivering a return to our investors. Aspen is run by a group of venture capital investors who demand a return on their investment, and require us to be able to be accountable to everything that we do.

So one of the biggest challenges we have in a small business is response times from the FAA. Each week we get delays that cause us to lose hundreds or thousands of dollars, and if you multiply that across the entire business of small aircraft or small aerospace businesses you can imagine how big an impact it is.

There are two things that affect us. One is the sequencing process, and the other is the actual process of certification. Sequencing process is the FAA's method of determining priorities. Often times the expectations around when we get through that process is very inconsistent. We have to plan buffers and plan in our financials the time it takes for us to get to the sequencing process.

Once through the sequencing process we then get into the FAA certification process. In that process there are many inconsistencies between certification offices throughout the country. There are inconsistencies between programs. There are changes in personnel that further exacerbate the problem in that we have to make changes as we go along.

Aspen, from our standpoint, we raise private capital to invest in new products. Those uncertainties that we have in the process create a lot of unnecessary cost that we must absorb, and it creates a lot of unnecessary time, which in fact has a big impact on bringing safety technologies for the industry.

With that as Chairman Graves mentioned, in our world we do retrofit aircraft, and there are 157,000 aircraft that are facing a January 1, 2020 NextGen milestone. While that may seem like a long time away, but the reality of the matter is that we must convince 157,000 individual owners of aircraft to upgrade their aircraft and convince them that it makes sense to do that. The installation process alone is a long and arduous task. When the certification process of new products takes as long as it does it becomes a real problem for us.

From our standpoint there are a lot of processes to go. The ODA process and technology of that is a good thing. Organizational Design Authority is a big process, but it is not cost effective for small business. We do not have the ability to do that. From our standpoint we need things like the Small Airplane Revitalization Act recently signed by President Obama. That process provided ability to segment markets and allows us to bring costs down. We really pushed hard for the thoroughness of that.

The next thing is the Next Generation GA Fund which has recently been launched by the FAA Reform and Modernization Act of 2012. That allows funds for people to finance the putting of equipment on their aircraft, and we think that is a very, very important part of it.

It is my opinion that the government should be doing everything to lift general aviation for the reasons that were discussed both by Congressman Graves and Congressman Velázquez. It is a very important sector of our economy. I really thank you for the opportunity to talk about how our business interacts with regulators in the FAA.

I want to be clear though in closing that we appreciate the work of the FAA, their dedication and attention. I also believe their opportunities to improve and reform their efforts to maximize their benefits and improve safety. I look forward to discussing this further, and would be happy to answer any questions you may have. Thank you.

Chairman GRAVES. Thank you. Our next witness is Austin Heffernan, owner and manager of Royal Aircraft Services in Hagerstown, Maryland. Founded eight years ago, Royal Aircraft Services is an FAA certified repair station specializing in aircraft painting, restoration, structural repair, and general maintenance activities.

Royal paints military aircraft through subcontracts with Northrop Grumman, Lockheed Martin, and Sikorsky among others. His company is also prime aircraft painting contractor for NASA's Langley Research Center.

Mr. Heffernan is a United States Army veteran with meritorious service medal, and received his bachelor's degree from Vanderbilt University in Nashville, Tennessee. He is testifying on behalf of the Aircraft Owners and Pilots Association. Welcome, Mr. Heffernan.

STATEMENT OF AUSTIN HEFFERNAN

Mr. HEFFERNAN. Thank you, Chairman Graves and members of the Committee. Thank you very much for having this hearing today and inviting me to present testimony.

I am Austin Heffernan, the owner and general manager of Royal Aircraft Services. I am also a private pilot. Royal Aircraft Services is a highly regarded FAA certified repair station in Hagerstown, Maryland. Our staff of 14 employees provide structural repairs, painting, restoration, and maintenance for general aviation aircraft based throughout the Mid-Atlantic region. Today I am also representing the Aircraft Owners and Pilots Association. I've been an AOP member since 2002.

My testimony today covers the following key points. Number one, general aviation is a heavily regulated industry. Number two, gen-

eral aviation cannot take advantage of the safety and operational benefits of new technology because regulations have not kept pace. Number three, FAA policies and internal structures are increasing the cost of general aviation flying without delivering added safety.

General aviation directly supports thousands of small business from flight schools and line operations to repair shops like Royal Aircraft Services. Thousands more use general aviation to move people and products, reach new markets, and support their customers. In fact, an estimated 65 percent of all general aviation flights are made for business and public services.

The FAA oversees all aspects of general aviation, and over time the Agency's regulations have become increasingly complex and prescriptive. Today we often find that regulations intended to protect pilots and the public instead limit or slow the adoption of new safety technologies and practices.

Quite often in my business we are unable to replace outdated 30-year-old technology in certificated aircraft. Even when better, less expensive technology is readily available to the owners of experimental aircraft. The primary reason is that the certification hurdles are so high that manufacturers cannot afford to seek the necessary FAA approvals.

When a customer wants the benefits of a state of the art engine and fuel management system we often have to locate the unit in an area of the instrument panel that is out of the way or hard to reach, reducing its effectiveness. We must do this because we cannot legally replace the outdated, inaccurate, quote/unquote, primary instruments that were supplied with the aircraft decades ago.

There are about 200,000 general aviation aircraft flying, and just over 1,000 new aircraft being produced each year. These numbers mean that the biggest safety pay-offs will come from upgrading older aircraft. Making it easier to upgrade aircraft will have another pay-off as well, creating well-paying jobs for those who design, manufacture, and install this equipment.

The FAA's approach to medical certification also negatively impacts small businesses like ours. We see many more pilots leaving general aviation then we see new pilots getting started. The restrictive medical bureaucracy within the FAA is one of the primary reasons.

Almost two years ago AOPA and the Experimental Aircraft Association filed a petition with the FAA that would reduce the hassle and cost of the medical certification process. Despite almost 16,000 overwhelmingly favorable comments on the petition, the FAA has not formally responded.

This past December Chairman Graves and fellow AOPA member, Congressman Todd Rokita, both members of the House General Aviation Caucus, introduced the General Aviation Pilot Protection Act. The legislation goes a step beyond the AOPA EAA petition by allowing even more pilots and more types of aircraft to make non-commercial VFR flights without the need for an FAA medical certificate.

Other areas of FAA oversight also impact small business. The current system requires the FAA to issue air agency certificates to many types of general aviation businesses including charter and on

demand operations, some flight schools and training programs, and repair stations.

The FAA has a backlog of more than 1,000 air agency certificate applications. A fact that is stopping small businesses like ours from opening or expanding. That is why I ask Congress to help small business owners like me by, number one, urging decision makers to consider changing the policies, guidance, and regulations in ways that will encourage and advance the use of modern technology in existing aircraft. Number two, urging decision makers to consider removing the internal issues that are preventing and delaying issuance of required FAA approvals.

As a small business owner and pilot, I appreciate Congress' recent passage of the Small Aircraft Revitalization Act, directing the FAA to streamline aircraft certification. This will have a significant impact on deploying new and improved safety technologies to general aviation aircraft. I look forward to Congress taking action on the General Aviation Pilot Protection Act.

Aviation is American. It started here, and we need to maintain our leadership in this area. We need to find ways to encourage and grow this amazing industry, and we appreciate your support.

On behalf of the 14 employees of Royal Aircraft Services, and the nearly 400,000 members of AOPA, I thank you for your leadership in addressing the concerns of the general aviation industry so that it can continue to help small businesses nationwide grow and thrive.

Thank you again for the opportunity to present here today before this Committee.

Chairman GRAVES. Thank you. Up next is Jamail Larkins. He is the President and CEO of Ascension Aircraft in Atlanta, Georgia. An entrepreneur and pilot since the age of 14, Mr. Larkins has been responsible for overseeing the rapid growth of Ascension's private aircraft sales, leasing, financing, and management services since founding the company in 2004.

He has been named the number one entrepreneur under the age of 30 by INC Magazine, was featured in Forbes Magazine as a 30 under 30 energy and industry leader, and more recently has been named the emerging entrepreneur of the year by Black Enterprise Magazine.

Mr. Larkins studied at Embry-Riddle Aeronautical University in Daytona Beach, Florida, and is testifying today on behalf of the National Business Aviation Association. Thanks for being here, Mr. Larkins.

STATEMENT OF JAMAIL LARKINS

Mr. LARKINS. Chairman Graves, ranking member Velázquez, and the members of the Committee, good afternoon. My name is Jamail Larkins and I am a businessman from Atlanta, Georgia. I am pleased to be here as a member of the National Business Aviation Association, and my company, Ascension Aircraft has been an NBA member since 2008.

This is the first time I have ever testified before Congress, and it is a privilege to be here. In 2008 I founded Ascension Aircraft, and today I serve as the company CEO. Although my company is

a regional leader in the sale of fractional-ownership shares of piston aircraft, the business employs just 19 people including myself.

Over the years I have found that one of the most effective ways to sell business aircraft is to use business aircraft. With a business airplane I can seize opportunities as they arise. The airplane I use for business is a Cirrus SR22, like the model one I have here before me.

The airplane enables me to meet face to face with potential clients, and that level of service and accountability helps me get a leg up on my competition and also build my company. Of course, many of my clients are also small business owners and entrepreneurs. They are often located in out of the way places, and like me, they recognize the benefits an airplane can provide.

With a business airplane an entrepreneur can travel for meetings, multiple cities in a single day, return to headquarters that same evening, and be back in the office the next day. With an airplane, a business person can transport tools or products that may be too large to fit into an airliners overhead bin or too delicate to be checked into the airliner's cargo hole.

With a business airplane, an entrepreneur can efficiently manage work sites that are a distance from each other and often located in towns with little or no airline service. Simply put, business aviation is a big asset for small businesses. It is the tool that makes business models work.

If there is anything that I would like you to take away from my testimony is this two-part premise. On the one hand, the United States not only has the world's largest, safest, move averse, and most efficient aviation system, it is also the best system in the world for allowing small companies like mine to succeed.

On the other hand, there are a number of ways the FAA could strengthen its relationship with the small business community so that the Agency's policies are more workable and effective for the Agency and for businesses.

When we think about the regulatory climate for business aviation today we know that, largely for safety reasons, stringent policy requirements are appropriately placed upon the industry. That means it is critically important that the Agency and the industry effectively collaborate. After all, when the FAA services go unmet or when the Agency implements onerous policies, business aviation suffers.

Here are two examples to illustrate my point. First, we know that the FAA policies require that small aviation businesses, flight training centers, flight schools, and on demand charter operators be certified by the Agency before they can open. Unfortunately over the years the certification backlog has swelled, and today nearly 1,000 businesses are waiting for an approval which could take up to two to three years.

Small businesses like these are drivers of job creation, so we need to find ways for the FAA to streamline its approval processes for these companies. We want to work with the FAA to find those ways to do that.

Now, I will point to an example of an instance when an effective collaboration has had a positive impact. It is on the operation's side of the industry. As we know, many of the companies using aircraft

are subject to a host of government requirements for installing equipment like that that are needed for reduced vertical separation minima of RVSM.

Thanks to government industry collaboration, RVSM requirements were recently smoothed, even as important safety standards were protected. We would like to work with the FAA to find similar areas where authorization procedures can safely be made more workable for operators today.

Equally important, we want to find areas where our relationship can be more effective and collaborative when it comes to future aviation planning. For example, as the FAA and industry stakeholders come together to debate the next reauthorization I would like to reiterate general aviation's communities' long-standing guiding principles for FAA reauthorization.

First, when it comes to paying for use of the aviation system, the fuel tax works best for everyone in general aviation. As a small business owner, I know that we do not need any other funding mechanisms like user fees. We also do not need the giant federal bureaucracy required to collect them.

Second, the general aviation community continues to believe that direct Congressional oversight of the FAA funding system is necessary. Third, a continued, strong Federal funding commitment is necessary to maintain the strength of our national air transportation system.

In conclusion, Mr. Chairman, ranking member Velázquez, I also appreciate the leadership that you provide, and the bipartisan support that the committee extends to the small businesses community. I look forward to answering any questions you may have. Thank you.

Ms. VELÁZQUEZ. Thank you, Mr. Chairman. It's my great pleasure to introduce to the Committee, Professor Kenneth Button. He is Professor of Public Policy at George Mason University where he is the Director of the Center for Transportation Policy Operations and Logistics. He has published or has in press some 80 books, and over 400 academic papers in the field of transportation economics, aviation policy, and related subjects.

Professor Button is the editor of numerous academic journals in the fields of aviation, aerospace policy, tourism, and transportation. Prior to coming to George Mason University in 1997 he served as a transportation expert for the OECD and taught at several universities throughout the world. Welcome.

STATEMENT OF KENNETH BUTTON

Mr. BUTTON. Thank you, ranking member Velázquez. Thank you, Chairman Graves, and the Committee for inviting me to give some comments at this meeting.

First of all, I want to emphasize the importance of general aviation for my own work. I did some studies in Virginia, and as the ranking member noted, it plays an important role in small communities for stimulating jobs, jobs directly and indirectly. So it is very, very important.

I want to focus on a slightly different aspect of the question to the previous speakers. I am interested in the demand for general aviation services rather than supply. There was quite an insightful

article yesterday in the Wall Street Journal discussing the shortage and pending shortage, perhaps, of commercial pilots. Where do commercial pilots come from? They come from, by and large, general aviation.

There is going to be a projected demand for future pilots, according to Boeing, of half a million extra pilots worldwide by the year 2032. In addition, a demand for something like nearly 600,000 technicians. Many of which also start their careers through one way or another, general aviation.

Most of this market is in China. China has no real general aviation market. It trains about 50 general aviation pilots a year. There is a huge market out there for the gentleman on my left to penetrate, to make money in the future. They need equipment. They have about 1,800 general aviation planes. They need personnel.

To get into that market, not only is there a need for some trade restrictions to be changed, but also to insure that the U.S. provides the appropriate hardware and the appropriate personnel, the pilots go out into that market, the training of those pilots.

Now, what is the FAA's role in this? Well, my perception is that most markets work pretty well on their own. Well, there are some imperfections which do need dealing with through the intervention of government agencies like the FAA. Security is an obvious one in aviation, and that is not, I think, on the table today, but there is also safety.

General aviation is an industry which is not perceived by the general public to be perhaps quite as safe as driving a car down the road. Although statistically you are much safer, I suspect, flying an aircraft then you are driving in a car down a road on Route 66, particularly this morning.

Now, how can the FAA get involved in actually changing this perception and altering it? First of all, they need to be responsive, and they have gradually been responsive to segmenting the market so that the regulations are appropriate for particular types of general aviation. It is not a homogenous sector at all. It ranges at the one end from small aircraft with sales, sale craft, at the other end we now have a huge debate about unmanned general aviation which I think will be very important from small businesses in the future on the manufacturing side, the operation side, and the usage side. That is clearly something that is being debated.

We also have a situation where there is taxation which I will not go into. I have expressed my views on that in the past. But what the FAA needs to do is to reassure the public. It is doing, as I said, by segmenting markets, introducing new legislation or being part of new legislation.

What we do find with the FAA is some of the data is suspect. They do not collect as much data as they need to. They have not got the resources to do that, one suspects, as was pointed out earlier. But without having data and appropriate ways of analyzing that data, it is very difficult to come to firm conclusions about how well policies are going to work, and indeed, which policies should be introduced in the first place.

So I do think there is an issue with the FAA with data resources. They are improving, but it is still a voluntary scheme, by and

large, by pilots who have to give information after they have made Flights.

Secondly, about adoption approach issue. It does take time to get your licenses. It does take time to get certified. Perhaps dividing the industry up into rather more detailed segments will facilitate are much more rapid certification process because at the moment there seems to be very much an issue of going for a higher standard. It may well be you might need to move down.

Again, the FAA has been involved in this, but it has taken a long time to do. I do have some sympathies for an Agency which is rather stretched for resources. I say that unusually for the FAA, I did once write an article describing is at a last bastion of Marxism, so I am not exactly favorably disposed upon it for some other activities.

But certainly as far as this is concerned, there does seem to be action. Not as fast as one would like, probably not always in the direction the manufacturers would like, but progress is being made, and one would hope that this progress will continue in the future.

Chairman GRAVES. With that we will start questions. I am going to go to Mr. Collins first and we will just see what happens with vote. We will play that by ear. Mr. Collins?

Mr. COLLINS. In full disclosure I am a pilot and so I have a bias. I'm not IFR, but VRF. Because of some life insurance issues currently I am not flying as I am not IFR.

But, you know, I have noticed, and I want to talk about the third-class medical requirement every two years. Most of us are over 40 so every two years we have to get—and, you know, there are some fairly arbitrary things on blood pressure and various cardiovascular testing.

I would like to, I guess, point out, you know, I am a boater. Boating you do not even need a license of any kind, let alone a medical certificate. So you are out in a boat and you have, you know, six or eight people in the boat, and whatever is going on you are not licensed.

Driver's license, I know in New York they are good for eight years and you need a vision test which is not much of a test. I am actually a Formula open-wheel race car licensed driver. No requirement whatsoever. So I can go around a track at whatever speed I want and no license.

So here we are, general aviation Class 3 medical every two years, arbitrary requirements, and it is just, to me, government intrusion into somebody's personal hobby. That, you know, we do not have, whether it is golf or tennis or race car driving.

So I guess I would just like your opinion. I am a co-sponsor of the bill that would remove the requirement for a third-class medical for those who are strictly recreational, limited number of passengers, and speed and altitude, and the like. Whether you think, you know, such a exemption would, at all, put the public in jeopardy in any way. I feel like any time the government steps in it is probably just one more reason somebody may not take up a sport.

Just your opinion on that, and your answer to the nay sayers who say, oh my god, everyone's safety is going to be jeopardized if general aviation pilots are not taking a medical. Jump in.

Mr. UCZEKAJ. Okay. So I was a pilot myself and over 40 myself. I share your concerns quite a bit. It does seem almost to the point of being ludicrous when you compare them to the other safety critical type of things that you would do. I actually think this is a very important part of the future of aviation because we have a shrinking population, and for small businesses like Aspen and others we need pilots to fly and buy our products. More importantly, we need pilots to move up into the air transport category the day that it was there.

All of us in aviation view that as one of the biggest problems facing us in terms of the pilot population. Putting more requirements in front of people to stop them from flying is a real problem.

Also, more importantly, many people start flying later in their life. I started flying just recently, primarily because there are other requirements in your life, whether that be your family or otherwise, and at that time in your life when you can afford to fly is the not difficult time for you to do that.

So I think you would find a widespread, almost 100 percent support of trying to work the third-class medical for pilots.

Mr. HEFFERNAN. I think the third-class medical requirement is a definite detractor to business. As pilots age, and most of our general aviation pilots are getting up there now, this is just one more hurdle they have to face. It really doesn't seem to create any additional safety. It seems ludicrous a person has to have a third-class medical to get in a 2,500 pound Cessna 172, but they do not have to have any requirements to get in a 45 foot Zephyr motorhome and take it down the interstate. It does not make any sense.

We are seeing more and more pilots leave general aviation as they get older because they have medical problems. It may be just perceived problems too. Their friend had some problems, they can envision themselves having that type of problem later on. When they are in this point of life where they want to look at the cost of upgrading an engine or overhauling an engine or upgrading an interior, painting the aircraft. All these expenses or new avionics, how can you justify putting that much money into your hobby when an arbitrary decision at a third-class medical next year may take it all away from you. So why even do that? Go by a boat, you know?

Mr. COLLINS. You don't need a license.

Mr. HEFFERNAN. Right. Yeah.

Mr. COLLINS. Mr. Larkins?

Mr. LARKINS. Personally it is one of the issues that I do not have to immediately have to look forward to. But we actually have had some of our clients that are involved inside of our fractional program that have had to exit in the last couple years because of medical issues. So it is one of those things that I think if we could come up with a solution that would allow people to continue to fly without having to go through some of those onerous policies that are currently implemented would be helpful for the industry long-term.

If you look at some of the other segments out there, ultra lights, LSA airplanes, people are being able to safely fly airplanes without having to go through that currently today.

Mr. COLLINS. Thank you. My time is expired, but real quick, Dr. Button.

Mr. BUTTON. I tend to take a cautious view on this. I think safety has to do with public perception and not actuarial calculations. The data actually the FAA has on amounts of flying is rather Spartan and not particularly accurate, so making judgments about safety is difficult.

As far as driving a motorhome or airplane is concerned, one involves two dimensional safety, one involves three dimensional safety. So I think we will have to be cautious. This is a perception issue of the public, and people are scared of planes dropping out of the sky on top of them.

I would be perfectly happy for you to fly in the middle of the dessert on an aircraft with no one underneath, but I am worried about flying over open area. With the success of general aviation building up business around airports, airfields, that may be serious issue.

Mr. COLLINS. My time is expired. Thank you, all.

Ms. VELÁZQUEZ. Thank you, Mr. Chairman. Dr. Button, as NTSB's data suggests, the majority of general aviation accidents are due to pilot error and loss of control. Both regulatory actions such as licensee requirements and non-regulatory initiatives such as increasing training and raising awareness can play a part. In your opinion, what is the proper mix of these regulatory and non-regulatory approaches?

Mr. BUTTON. Thank you. It is clear that safety is a human factor, as they say in engineering, for many accidents. I think what is important is actually to ask the question what are the main causes of accidents. It is not just human failure. There are different classifications, different types of aircraft, and so on, and to pinpoint exactly where these issues are.

The Safety Board is very good at doing this. It does a detailed analysis. One should act on that. But certainly one does get concerned when we look at situations where drug and alcohol abuse causing accidents. I, myself was buzzed when I was a professor in England by an RAF student who had a conflict with his girlfriend, went and got a pilot's license, took an aircraft from the local airport, and buzzed the university. He took down some cables with his undercarriage. So the human factor is important.

I am not sure you can handle the mental side. He was not an F-guy, I mean, they go through pretty rigorous training, but nevertheless the physical side is important. Have a heart attack in an airplane you are coming down. Have a heart attack in a Winnebago you drive to the side of the road. These is a difference.

Ms. VELÁZQUEZ. Thank you. In your testimony you point out that general aviation uses about 16 percent of air traffic control services, but only contributes about 3 percent of the cost. Does this mean that the taxpayers and commercial airlines are subsidizing general aviation activities?

Mr. BUTTON. My personal view is that probably the gap is not as wide as that because general aviation does not need some of these whistles and bells that goes with the navigation system.

Nevertheless, I am a great believer in user charges. I think it is possible to isolate exactly what is used, not everything, but exactly

for a large part of the cost, and those costs should be allocated appropriately.

Ms. VELAZQUEZ. Thank you. Mr. Larkins, roughly two-thirds of air traffic control system carrying costs are financed through aviation excise taxes of some sort including ticket taxes, segment fees, international head taxes, and fuel taxes.

If it is determined that additional funds are needed to continue to operate the air traffic control system and budget cuts makes it impossible to use additional tax payer's dollar, how would you suggest the FAA raise these funds?

Mr. LARKINS. Personally I would say that I do not think anyone on the general aviation side would have an issue with continuing to pay through the fuel tax. Even if that needed to be adjusted to be able to pay more. We think that that is probably the most efficient use of it.

Before I had the opportunity to get my first license here inside the United States, I actually had the opportunity to get my student pilot license in Canada. There, there are user fees that are currently being collected for aviation activities there.

Personally I can tell you from my own experience, going through Canada and having to pay for it there is not as efficient, is not as user friendly as what it is here inside the United States.

So from my experience, over 2,000 hours of flight time in all sorts of different aircraft, and throughout a lot of parts of the world, I would definitely recommend that we continue to pay for our use of the system through fuel taxes versus any sort of user fees.

Ms. VELAZQUEZ. Dr. Button, would you care to comment on my question? How do you suggest——

Mr. BUTTON. I think user fees are important. The point about user fees are, they not just collected revenue which is an interest clearly to government a lot of the time, they actually effect behavior.

At the moment, there are situations where we have—this is something no one has commented on, the increased number of hours to qualify for a commercial license gone up from 250 to 1500 hours. It costs money to qualify as a commercial pilot. Basically to get your license you fly around in circles for two years, and then you get a license which is not very efficient.

I think user fees may well be a better way of encouraging people to move in the industry. I think they may well be also tied, in particular ways, to the type of activity involved in those 1500 miles. Simply flying in circles does not seem to me to be a particularly effective way of increasing safety. Take-offs and landings seem a bit more dangerous to me. I don't know. So I tie things together.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Chairman GRAVES. I think what we will do is take a quick recess, and then we will come back and will continue with questions. We will get through this. I apologize for the inconvenience of the vote, but it is what it is. We will be in recess until we are done.

[Recess]

Chairman GRAVES. We can go ahead and get started and then we will wait on the other members to come back. Again, I apologize for the vote series which is always an issue in Congress.

I will start my questions with Dr. Button, which I always get frustrated when we make generalities to try to make a point, and, you know, talking about third-class medicals and heart attacks. When you have a heart attack in a Winnebago you just pull off to the side of the road, but when you do in a plane you come down on top. Which I can make the same generality the other way. You have a heart attack in a Winnebago, you are going to cross the line, you are going to kill somebody, but if you have it in a plane you just land it.

It is very frustrating to me when we see that, particularly when—just to clarify for folks, on third-class medicals, you know, it is a two-year process. You are basically self-certifying anyway. Once you take that medical you have two years for it. You do not even have to mess with it.

So I am very frustrated by that, but my question to you is, you know, when you were talking about a data-driven process with the FAA and we need more data to regulate, but then you turn right back around and said that safety should be a public perception process rather than data driven. Are you suggesting the FAA develop policy based on public perception?

Mr. BUTTON. First of all, the comments about the Winnebago was also a data problem because the data, for example, the FAA has on flights by general aviation and so on is poor, so working off the probability of having an accident with someone having a heart attack in motor vehicles as opposed to an airplane is a tricky statistical one.

No, I think the problem is that the—there are two things. First of all, I think policies are made on the basis of perception a lot of the time. I think that is because people perceive the benefits they enjoy from things, and there is an educational process required. That educational process is very difficult to achieve without adequate data. That was really my point.

Policy should be data driven, but nevertheless, unless people are confident in the data they will perceive things, and if you are a policymaker, my view is that you essentially adopt policies which people perceive to be good. That is right through the whole policy agenda as far as I can tell.

Chairman GRAVES. I take a much more objective position on policy. I think policy ought to be based on that data, and not based on emotional arguments which drive perception. In the case of aviation, that can be at its worse. Again, making generalities, like you make, when it comes to driving a point.

Mr. BUTTON. Well, let me drive the point in a slightly different way. How many column inches in newspapers are devoted to a general aviation crash, and how many inches are devoted to a car crash? There have been studies done on this, and clearly rare incidents of, I don't like to use the term to be honest, but it is probably the only one I can think of, spectacular events tend to attract public attention.

Public attention does drive policy. I am not a politician, but certainly perception is important in the electoral process, and it is true in the policy process.

I would like to have an objective-driven system to be blunt with you, but it is simply not the way it works. It is not the way the

media works, and it is often not the way individual's minds work either. People are scared of flying still. It is the safest way of moving around the world, but they are still scared.

That is a problem. They don't normally know the statistics. They just hear about serious accidents.

Chairman GRAVES. That is unfortunate too. Just to use your example of column inches devoted to a car crash as opposed to the airplane crash, you are right. Because there are so many car crashes the sheer number and volume of the car accidents out there, of people getting killed by somebody else crossing the line.

That is what is always a worry to me. You know, if I am driving down a two-lane road and I am going 60 miles an hour, and the person coming at me is going 60 miles an hour, that means we are closing at 120 miles an hour, and I hope like hell that he is going to say on his side of the road. I have to depend on somebody else, whereas in the air, I do not.

It is very frustrating to me when we do use, again this emotional generalities, and then we talk about whether or not we should be basing public policy on perception.

My next question is actually for Mr. Heffernan and Mr. Uczekaj, in fact, if anybody else wants to weigh-in, you are more than welcome to. We hear a lot of talk about the FAA and the backlog as a result of sequestration, budget cuts, whatever the case may be, which are fairly recent, to be quite honest with you.

My question to you, you all have been in business for a long time. Was it the same way? Were there backlogs before? Were you having trouble getting responses out of the FAA or getting them to move in a timely manner prior to sequestration then after sequestration?

Mr. HEFFERNAN. My opinion is no. We were not having any additional problems prior to or after. I think there has been just a tendency to kind of be stuck in the mud there in terms of getting things done. I have not seen that the budget cuts though have really done anything.

Mr. UCZEKAJ. From our perspective there certainly is a difference. I mean, I have been certifying avionics for well over 30 years now, and what I have seen evolve over time, and most recently in the last six to eight months since sequestration, government shut-downs, and things of that nature, is that the FAA rank and file do not—their application of procedures and processes seems to vary a lot more than it did before. For, I'm sure a plethora of reasons, from job security to, you know, the perception that they have to be as safe as possible because of the pressures that are on them.

We see the lack of consistency between applications between individuals and the FAA has increased since the pressures on resources and such have occurred. So from our view, at least from a manufacturer's standpoint, we think it is going in the wrong direction. We think there are a lot of things that can be done to improve that.

Most notably is to simplify the process so that an individual, for whatever reason or whatever motivation, has the process and procedures supporting them, and they do not feel like there is any sit-

uation where they might be on a limb or something, and they may take the most conservative position as well.

Certainly resources at the FAA are a very, very big deal. There is no question about it. It plays into the sequencing. It plays into the way they work. It plays into, you know, where they are. We see change in personnel much more than we ever did in the past. People are changing roles and therefore, we get different interpretations.

We feel very strongly that that change has occurred, and we would like to work with ways to do that. There are many ways to do that ranging from more delegation to the DER system, that as an engineering representative which, you know, we have these people that are 35 year experience people that have been certifying things for a long time. It seems like delegation is less and less used.

So these kinds of things, I think, need to be addressed. I think it is very critical for businesses that are small because if you really think about it, we have fewer products, and if one product gets held up the impact on a small business is disproportionate. A company can fail as a result of one product being held up.

We encourage everybody to work with the different Small Aircraft Revitalization Act to make things more simple, use more delegation so that the pressure on resources that is current and very real could be alleviated.

Chairman GRAVES. Are you all hearing from the agencies you have to deal with, whether it is certification or flight standards, I mean, is anybody getting laid off in the FAA? Are they being released as a result of budget cuts? Do we have the same number of people just doing less work or more work? Are we making work for them? Are they making work for themselves?

Mr. UCZEKAJ. We have not seen any kind of reduction in workforce. We have seen some people leave the FAA on a natural nothing out of the usual.

You know, my sense is that there is just not enough specific procedures and processes for them to be able to follow and therefore they interpret on their own. We have not seen any reduction in resources in terms of lay-offs. That is for sure.

Mr. HEFFERNAN. Nor have we.

Chairman GRAVES. That is what I assume. You know, we keep hearing about not being able to do what they did before, but they have the same folks.

I have a quick question for Mr. Heffernan about FSDOs, and in your line of work, which is a little bit different, I was just curious, have you ever lost business because your local flight standard's office was seen as too stringent or, you know, your customers as too stringent, and yet you hear of other FSDOs because there is so much various between them, other FSDOs, that are overlooking whatever it is that your particular FSDO is claiming as a problem? You see where I am going?

Mr. HEFFERNAN. Yes, sir. I do. We have seen a great disparity between FSDOs. It is one of the things that really concerns us right now. We have had customers, one customer example, has a Cessna 190, very old airplane. He has been coming to us for annual inspections year after year. This year we told him, you know, you

probably need to pack it up and take it out to Montana. If we have to do the annual inspection here on it, the guidelines have gotten so stringent on corrosion that we are going to be replacing every piece of hardware on your airplane if we do the annual here. So my advice is, unless you want to incur that kind of expense take it elsewhere.

We have seen quite a bit of conversation on the D.C. Pilot's website, some of the other pilot websites about people saying, you know, from now on they are going to be taking their airplanes to Pennsylvania or to another state for annual inspections because there is so much concentration right now on corrosion. The definition of what is and what is not acceptable corrosion.

We all know unacceptable corrosion. If you get into an airplane and there is structural damage, there are rivets coming loose. Yeah, that is definitely taboo, but how much surface rust is inappropriate on a screw head or a bolt. You know, does to really weaken it? How do you know unless you do undestructive testing or destructive testing on the bolt?

Things that were left up to NIA or to a repair station to, based on their 40, 50 years of experience doing maintenance on that make and model airplane, it was up to them to be able to make a judgment call as to whether they can pass it whether they can defer it to next year or whatever.

Now that is not an opportunity. It is basically within our FSDO you replace it or you are in trouble. I just had a customer with a Grumman. It had a $12,000 dollar annual because we replaced every piece of hardware on there. A lot of was, I think pretty subjective, but that is the guidelines we are operating under.

Chairman GRAVES. Mr. Hanna.

Mr. HANNA. Thank you all for being here. I am a pilot, AOPA member for many years. I own an airport. I owned an airport, now I own a mortgage to an airport which incidentally is marginally better.

My feelings about this business, and I am pretty familiar with it, is we have watched insurance go up, gas go up. We have watched licensing certification lessons go up to a point where if it is true, and I believe all of you have confirmed this, if we are going to have commercial pilots, we need a health GA business, right?

Well, I submit to you that GA is really in big trouble because there is such a thing as critical mass. As a point where an industry is fundamentally dying rather than growing. I think that that is where GA has become.

So I say to you, to the extent that the FAA's inability to go through this process more efficiently, and I have bought airplanes, I have waited years for certifications, is really killing the business. That it is not just all of you collectively and how you suffer day in and day out. You are a part of an industry that is in big trouble. The hobby that I love, and I know Sam and other people, members here do, is in danger of evaporating because you just cannot sustain the infrastructure we need to sustain if there isn't some amount of GA.

So to the extent that things like additional gas taxes which, you know, everybody would prefer that over a user fee, particularly in this country where I can go into a dozen airports in a single day

and go and come at my leisure. Whereas in Canada it is much more problematic. I have flown in both places.

I normally do not make this kind of statement, but I feel strongly about it, and I feel badly for the circumstances because it is unique in this country. It is an asset that is unique in the world to us, and it is a freedom that we have, that people enjoy. I look forward to my little boy learning to fly. He already owns an airport that I am going to give him, you know, in spite of your 12,000 dollar annuals every year.

I guess I would ask you a question about it. We could argue about user fees. I mean, you are an academic. I am a realist. I don't mind paying more money, but I do not like user fees because they simply create as much of an expense as they pretend to collect money. In this country particularly, the airport I own, the idea of me having to be there to collect a fee to send to the FAA would be an utter and complete joke. It would not happen. I would have to leave a can at the end of the runway, you know, and some of you would have to drop five bucks in there.

But do you think there is any truth in what I am saying? Do you think the whole industry is in trouble because of this? Cessna, you said there is 1,000 planes being made a year. Cessna just a few years ago was making 1,500, 1,600, you know, and you have seen consolidations with Beechcraft, and you have seen Columbia, and your plane, the Cirrus, right?

It is not in good shape. By the FAA holding up the opportunity to move things more quickly, and frankly for us to be so litigious that everything we do has to be—if a third of the cost of an airplane is bound up in extraneous insurance costs, you know, that is crazy too. So I will just ask you to comment on my little talk. Thanks.

Mr. BUTTON. I think the industry is in trouble. It has a big future though, as I said earlier, if it can think internationally and start selling its wares overseas, selling its pilot training skills, which is still does, to some extent in this country. There is a market.

The law situation I think is much more of a problem, the litigation and so on is much more of a problem than the FAA rules. We talk about a few licenses being held up, but the number of court cases, the way the aircraft are operated and used, they are influenced. I was talking to some people while you were doing your democratic duties of voting. There are serious problems that are deterred from doing things.

I think there is something else that one has to remember. I told the story earlier to someone. When my father was alive he used to talk about people and himself when he was young wanting to be a train driver. My generation in Britain, okay, we do not have too much general aviation, a lot of people want to become pilots.

These days the younger generation want to play on computers, and it is exciting for them to play on computers. They are used to flying. The younger generation get inside of a regional jet, a small regional jet, they get bounced around a few times. They have got their kicks.

So I think there is a cultural change which is taking place which is often missed by people actually involved in it. I am outside so

I tend to look at it. But I do not think the industry is dead. I think it has a huge future if it can start thinking—I think it does think internationally by the way. I don't want to——

Mr. HANNA. Well, Cessna is building in China right now, right?

Mr. BUTTON. Exactly. But half the Chinese general aviation planes which is about 1,800 that are actually built in China do not work very well. They have very few pilots, very few training schools. They have huge taxes on imports. That is one reason Cessna is there.

There is the Anglo-Chinese aviation operation.

Mr. HANNA. When I got my license it cost me 1,000 bucks, right?

Mr. BUTTON. Yeah.

Mr. HANNA. I took 40 hours.

Mr. BUTTON. Yeah.

Mr. HANNA. I was lousy at it, but I got by. Today it is 5,000 minimum, and does not begin to give you any of the steps you need to become what Sam is and others here.

Mr. BUTTON. May I pose the question, not acquiring the license, how much insurance did you need in those days compared to now?

Mr. HANNA. It is an incredible difference. My point is, and we apparently agree, that every step of this business has gotten more expensive, more difficult. Whether kids want to stare at their computers or not, we have fundamentally taken away the opportunity for young people to look at it as an affordable outlet for a pastime or a career.

Mr. BUTTON. I highly agree. But also I think a career is the important thing mentioned at the end where we have pilots moving into commercial aviation. They are earning 20,000 a year. I don't know. It is very low.

There is some imperfection in the commercial aviation market which is discouraging people from moving into that area. It may be pay. It may be conditions. That needs to be examined though.

Mr. HANNA. According to you it is not supply and demand though? And with all due respect, somehow there is a gap there.

Mr. BUTTON. There is a gap. The market is not working perfectly. You start hearing stories of airlines now recruiting, regional airlines recruiting pilots who formerly they would not have recruited. They got some blemish on the record, and they simply in the past would have stood back. Now they recruit them. There is a shortage there.

There is a market failure up the chain. This is what I am mainly interested in, the use of aviation and training, the sales overseas. There is something not working well. Certainly change is required.

I think the trade agreements are important. I think the FAA needs—and I think it is moving in the right direction, it is the speed that is the problem, but I think things need to be done.

It is your perception is because you are inside. I think if you stand back and look at the global market, the U.S. has got sort of the best planes in the world, the best training facilities in the world. There are huge developments in Asia. There are huge developments in South America. There is a huge opportunity out there which needs to be dealt with.

I think the main problem is with trade barriers as opposed to domestic barriers. But having said that, and I said it earlier, you have to have a strong domestic industry, a strong domestic sector——

Mr. HANNA. But if the creation is taking place here, and there are small manufacturers. I bought a few plans from a wonderful company, Jim Richmond, CubCrafters. You guys know him. He has been in business all his life. He loves it. I doubt if the guy is ever going to get rich, but he makes a marvelous, marvelous product.

It took him five years to get a wing load changed to go from 1,700 pounds to 2,000 pounds. I know because I waited for that. It is ridiculous.

So those things are things that we can do on the margin. And I apologize for my time, Chairman. That we can do on the margin to change that dynamic and slow down what I think is an industry approaching critical mass, we should do it every opportunity. With that I will thank you for your indulgence.

Chairman GRAVES. Mr. Payne. Sorry, I did not see you over there.

Mr. PAYNE. Thank you, Mr. Chairman. To all the panelists, thank you for your testimony. Today general aviation provides approximately 18,000 aviation related and dependent jobs in New Jersey, and contributes to at least 624 million to household incomes and an estimated 1.7 billion in annual economic benefits. So I certainly have an interest in preserving and protecting small business in this industry.

However, as Dr. Button's testimony mentioned, I believe our challenge is not only to consider the impact of regulation on small businesses, but also to consider the general public interest particularly in the area of safety.

Your testimonies have been helpful today, and I am hopeful that we can balance support for the important work that you do with the safety of the people we represent. So I look forward to working with my colleagues on the Committee on striking a balance.

With that, I yield back the balance of my time.

Chairman GRAVES. Thanks Mr. Payne. A question for Mr. Larkins, and anyone else can answer too, but in your testimony you briefly touched on the sleep apnea issue which, you know, sent reverberations throughout the aviation community. We have basically got four segments of aviation out there. The GA community, we have corporate aviation, we have those folks that use aviation for their businesses and need to use it, but they may not necessarily be their business, we have hobbyists, and then we have the airlines out there too.

My question to you is, when you have something that is just an out-of-nowhere ruling by the FAA, and we are talking about resources, talking about finite amount of resources to be able to use when it comes to regulating aviation, and you go through the medical process which we have talked about earlier, you cannot even ask an applicant about their heart attack history, but yet now they want to know about the circumference of your neck and how that relates to your body mass, and the size of your head and whether or not you have sleep apnea which I have not heard of anybody,

and this may go back to a data issue, but I do not know of anybody that has crashed because they fell asleep.

But the truth of the matter is, how does that affect you and your business when it comes to potential clients when you have these things that just come out of nowhere and people do not know what to expect?

Mr. LARKINS. It is an important issue and it touches on what we talked about earlier in the oral testimony that industry working with the FAA is extremely important. We look at RVSM certification as one example of that. That when the industry and the FAA meet together we can come up with the reasonable solutions that ensure safety, but at the same time allows the industry to continue to operate.

When there are things that pop up out of nowhere, like the sleep apnea thing, and there is not enough opportunity for the industry to communicate on it initially that is when a lot of issues start to come up.

Without the FAA getting the opportunity to talk to some of the pilots and the operators inside of the industry then I think that we see some of these issues of overreactions, in a lot of ways, that may happen. I am very proud to see some of the potential legislation that is coming out that will prevent the FAA from getting the opportunity to implement some of those things without more interaction and feedback from the industry right now.

Chairman GRAVES. Anyone else? Uczekaj?

Mr. UCZEKAJ. Clearly things that come out of the blue are probably the most damaging things to our industry. Whether they be the sleep apnea or regulation changes that have no basis of either fact or experience. That creates a very damaging environment for us to develop and create safety products.

I want to refer back to Mr. Payne's comments about safety. Aerospace is no different than any other industry that we are striving to develop products, and striving to put in processes and procedures for individuals to make flying more safe. Whether that be a sleep apnea issue or a health issue or a functional issue.

But when the system itself does not allow for the proper due process, and once that due process is in a method to efficiently implement change, this is technically what you get. You get people and statements made out of the blue, and then we spend as an industry valuable dollars and time countering that when we should be spending time on doing the things—creating better safety products, better safety processes, so that we can improve both the reality and the perception of aviation.

It is very frustrating as a pilot and as a manufacturer that so much time and effort was spend on that particular subject instead of other subjects of more relevance to safety.

Chairman GRAVES. Mr. Heffernan?

Mr. HEFFERNAN. We have spoken here a bit about perception and perception driving things. I think this is one of the areas where perception is driving people out of the aviation market, out of general aviation. As they get older they see these things cropping up out of the blue, and they see their friends that lose their medicals for one reason or another, cannot get them back.

There are people that could probably get their medicals back, but they have lost the interest or the will to continue to pursue it. When they see things come out of the blue like this it reinforces their decision to get out of aviation and just go buy a boat or whatever.

I think, you know, one of the things that has always bothered me about the medical is I don't know any pilots that have gone through all the training and all the sacrifice, and everything it takes to become a pilot and to be certified, that want to be unsafe. People want to be safe. I think they will self-police themselves.

I think the dollars will be much better spent doing training to help people assess if they are physically qualified to fly, if there are any warning signs they should be looking for. That would be a much better approach, spending the dollars on that aspect rather than trying to legislate some off the wall, out of the blue condition.

It has always amazed me that you read all the list of drugs that would prevent you from flying. You look at things that people take for granted that—we all know people that are taking these, anti-depressants. You can't fly and take anti-depressants. Are people really going to tell the truth during their medical exam that they are actually taking those or are they going to make the decision to fly and not take them, so we have a lot of depressed pilots flying around. That is not safe either.

I just think there is an avenue here for people to police themselves, and I think education is the way to do it.

Mr. BUTTON. My only observation is looking at the data of what causes—some of the data on contributory factors. You do have drugs and alcohol being influential in a number of crashes. You do have intentional disregard being a factor.

I take the point about self-policing. I think most people self-police when we drive or whatever we do. Most people are very, very sensible.

My argument about perception is probably slightly different. I think people have got to perceive the system to be working, and at the moment we do not know whether it is working very well. When you present this sort of data to an individual where you do have drugs and alcohol involved in accidents, not a large number, but some accident, intentional disregard. I am not quite sure if that is, to be blunt, suicidal tendency, I am not sure. That is something which worries the general public.

Now, I'm not sure, and I sent the questions out about the Winnebago versus the aircraft, the general aviation aircraft. I'd like to just know more information which does not seem to be available from the FAA. They do take decisions, as you rightly said, sir, and the panelists said, and just something appears. You just get something coming out from the FAA.

I think that may be a flaw in the FAA in terms of its public relations or it may be a flaw in its data sources. I don't know, but it is a problem.

You can't just suddenly have some arbitrary notion that someone may suddenly fall asleep. I mean, I find that rather strange.

Chairman GRAVES. You mentioned alcohol and drug abuse in accidents and being a fair number. Do you have any suggestions on policing that?

Mr. BUTTON. Well, it could be the alcohol have a sort of Breathalyzer kit you have in a car. Basically you cannot start a car unless you breathe into a piece of technology that tells the technology not subject to alcohol. I am not sure that is too expensive either, actually.

Drugs I do not know about. I am not sure what drugs are out. I am not an expert on drugs, but it does not seem to me to be too expensive, and for everyone's benefit to actually breathe into a Breathalyzer on a plane and not be able to start it without being clean.

Chairman GRAVES. Should we do that with cars, trucks, busses——

Mr. BUTTON. I think we should.

Chairman GRAVES. Busses, boats?

Mr. BUTTON. I certainly do, yes.

Mr. HANNA. Chairman, do you mind if I ask a question? Since there is no one on the other side, so. I will tell you what my experience with pilots is, and I know hundreds of them. I owned an airport. I watched them.

They are a unique group of people, very much focused on what they do, but if there is any group that I have ever seen that can adjust what they do individually to their skill level it is pilots. People who are not IFR current, they are the first ones to know, but they can still have a current capacity to do that.

What is see is older people knowing they have, or whatever their situation is, they do not fly enough. Incidentally, average pilot flies about 19, 20 hours a year. It is not nearly enough. We should encourage them to fly more to make it safer, therefore make it cheaper, not more expensive.

But what I see is people only fly in good weather. They only fly in the afternoon and in the morning. How about you, Sam, is that what your experience is?

Chairman GRAVES. I think very much so.

Mr. HANNA. People pretty much self-police. It is pretty easy to fall under the radar if you want to. You do not need to get your annual. You do not need to get a bi-annual. You do not even need insurance, frankly.

I think the more punitive we become, this industry is becoming the victim of the death of a thousand cuts. Pick an area of it that is not punitive and yet in this country we are more free doing it than any place in the world.

I just think we should encourage it and not be so inclined to tell people that they should not want to kill themselves because they already know that. Thank you.

Chairman GRAVES. I want to thank all of you for participating today. I want to, again, apologize for the vote series, but the testimony has been very good. I think it is critical to the success of general aviation, to the entire industry, that the FAA does a much better job of working with stakeholders so they can better meet the needs of those that it regulates, and boost the industry rather than dragging it down.

General aviation is a significant contributor to our economy, and, you know, I think the FAA has to keep up with the advances in

the industry to allow it to continue as a very dynamic force in our economy.

It is a very important issue to be, obviously, and I think it is an important issue to every community out there that depends on aviation, and that is just about every community out there, and so many businesses that depend on it.

So with that I would ask unanimous consent that members have five legislative days to submit statements and supportive material for the record. Without objection that is so ordered, and with that the hearing is adjourned, and, again, I thank you all for coming.

[Whereupon, at 3:32 p.m., the Committee was adjourned.]

A P P E N D I X

Statement of
John Uczekaj, President and Chief Executive Officer,
Aspen Avionics, Inc.
On Behalf of the General Aviation Manufacturers Association

Committee on Small Business
U.S. House of Representatives

FAA Impact on Small Businesses
February 5, 2014

Chairman Graves, Ranking Member Velázquez and distinguished members of the Committee, I appreciate the opportunity to appear today to discuss the impact of the FAA on small businesses in the general aviation industry and want to thank you for your holding this important hearing. As a leader of a small business, I look forward to highlighting some examples of the impact specific FAA policies and internal organizational structures have on small aerospace businesses.

My name is John Uczekaj and I am president and chief executive officer of Aspen Avionics located in Albuquerque, New Mexico, I also serve as a board member for the General Aviation Manufacturers Association (GAMA), with a leadership position within GAMA as chair of their Flight Operations Policy Committee and am honored to provide testimony to the Committee on their behalf as well today. Finally, as an instrument-rated pilot and aircraft owner, the opportunity to testify before this Committee is especially significant to me.

In 2004, Aspen was founded by two aviation enthusiasts with a mission of designing and manufacturing the most advanced avionics technology and capability for general aviation cockpits at a price that was affordable to small aircraft owners. Aspen Avionics' products increase a pilot's situational awareness in the cockpit, support the implementation of NextGen technologies, and reduce pilot workload, making it easier and safer to fly in both visual and instrument conditions.

In 2008, Aspen Avionics began delivering FAA certified, ground breaking technologies to the lower end of the certified general aviation industry. These products included simplified lower cost installation architectures, flat panel displays, three dimensional terrain awareness, battery backup, and NextGen capabilities. Prior to the entry of Aspen Avionics into the market these certified technologies were too expensive for a large portion of the general aviation fleet and were reserved for higher end aircraft including business jets and commercial air transport aircraft. Since that time over 6,000 of our Aspen systems have been installed into general aviation aircraft worldwide, which is a testament to our company, our employees and our product's capabilities.

With just 47 employees, Aspen's entrepreneurial spirit is key to its success. Also key is the discipline we must have in managing costs and delivering a return to our investors. The company is guided by a Board of Directors, whose investment in Aspen is made with the expectation of a profit in the future. In order to keep costs low for our customers we operate on tight margins.

One of the biggest challenges we face as a small business is response times for FAA approvals. Each week, small aerospace businesses like Aspen are losing hundreds of thousands of dollars due to approval delays from the FAA. In recent years, when a small business begins the process of developing a certified product it must submit to a sequencing process by FAA of certification projects. The process in unpredictable and often results in increased product development times and costs as companies develop the product and wait for the FAA to apply resources.

Once through the sequencing process, companies must deal with a lack of clarity in expectations and inconsistency between certification offices in different regions and within individual offices at FAA. This is a major barrier to success and often survival. Various offices interpret guidelines differently. More importantly, even within a certification office, procedures followed on previous programs are implemented and interpreted differently on later programs. FAA has proposed changes to the sequencing process but the totality of the entire process and the threat of costly delay remains a real concern for our company and many others.

Changes in personnel in the middle of a program further exacerbate our problem and are compounded by agency personnel adding or changing tasks at the end of a program with great impacts. Aspen specifically has been affected during a recent program where additional work levied late in one program resulted in unplanned, increased costs and a resulting loss of 13 high paying quality jobs (20% of our overall workforce) in October 2013. Imagine this outcome, multiplied by hundreds of small aerospace businesses who experience this on a regular basis. The money saved by instituting clear procedures, consistent training, and detailed certification guidelines to FAA personnel would boost productivity, grow the industry, and secure jobs.

As a small business Aspen Avionics also has raised private capital for investment in new products. Our inability to accurately plan our tasks associated with certification is a major disadvantage for companies of all sizes, but particularly for small business like mine. We need to account for these inefficiencies in our costs projections, thereby lowering our potential returns and making it very difficult to draw the interest of financial investors.

To be successful, businesses, and in particular small businesses, need to clearly understand the tasks and be able to expect the FAA to respond in a timely fashion. Certification plans provided early in the process need to be approved and followed without new requests being levied late in the programs. This will allow us to plan our tasks, execute them, and keep costs down, bringing safety critical products to the market on time and at affordable costs.

Many companies like ours are developing new and innovative solutions to meet FAA NextGen mandates to equip over 157,000 aircraft facing a January 1, 2020 deadline. These aircraft operators will have a limited time to schedule and complete these avionics upgrades. While 2020 may seem like a long time from now, current delays in the certification process shortens that time period exponentially. In my opinion, accelerating the efficiency and response time for approvals is one of the top issues we must work together to solve. If not addressed soon, certification delays for NextGen avionics will become overwhelming and the significant investment in the ATC infrastructure could be compromised. With Congress, FAA, and the private sector working together, we can address NextGen equipage effectively and make the overall program a success. Urgent and real safety benefits can be delivered if we invest the resources and develop the approvals and guidelines to speed up the certification process.

One crucial way to address these issues, particularly for larger companies, is through the establishment of Organizational Design Authorities (ODA). The cost, however, of supporting an ODA for a small business can be prohibitive. Aspen does employ and contact with some of the most experienced Designated Engineering Representatives (DER) in the country for systems, flight test, software, and structures at great expense. Many of these individuals have over 35 years of experience. In addition, the senior members of our company have similar levels of experience in avionics development. We hire such capable individuals to ensure our products meet and exceed the requirements of the most stringent regulatory procedures. We have a vested financial interest to ensure our products are safe, reliable, robust and perform as promised. Our success depends on it. The success of our competitors depend upon it.

Likewise, we also understand that the FAA is working under increased fiscal pressures. With limited resources it is even more critical that we leverage the expertise of companies like Aspen to improve safety, drive innovation, and improve certification efficiency. Delegation to companies like Aspen that have invested in experienced and industry-respected DER resources is a viable answer for our businesses and the FAA. We encourage the FAA to make more consistent use of this very valuable tool to ensure safety and the viability of innovative small businesses in aviation.

I also propose we look at ways in which we can work together to grant some sort of airworthy certification authority for small businesses to help "cross the finish line" and speed up the certification process. People in small businesses like ours, and especially those that work in aerospace, have a passion for the industry and work in this business because they want to—not because they have to. To help alleviate the workload, aligning the division of responsibilities and the authority properly is essential to ensuring the vitality of aviation small businesses and the advancement, growth and safety of general aviation.

Such creative thinking and collaboration is exemplified by the Small Airplane Revitalization Act which was signed into law by President Obama in late November. On a bipartisan basis, members of Congress came together and passed legislation which will improve safety, encourage innovation, and promote growth in aviation. A legislative focus on small businesses in aerospace could result in similar benefits.

From an Aspen Avionics perspective, another wonderful example of this collaboration is the NextGen FA Fund. When Congress passed the FAA Reform and Modernization Act of 2012, they included Section 221 to incentivize GA equipage through use of a public private partnership (PPP), where 100% of funding for low interest loans are underwritten by private sector investors. The PPP, called the NextGen GA Fund, is ready to launch and we are optimistic about its impact on the industry. Just announced last week, Aspen Avionics is the first small business to support this important initiative. I only mention this as an example of the ways we can work on together to help small businesses in the aerospace industry to continue to contribute to an important part of the country's

economy. It is my opinion that this is what government should be doing to lift general aviation as an important economic sector.

Thank you for the opportunity to testify about how my small business interacts with our regulator, the FAA. I want to be clear, we appreciate their work, dedication, and attention, but also believe there are opportunities to improve and reform their efforts to maximize benefits, improve safety, and allow small businesses like Aspen Avionics to flourish. I look forward to discussing this further and would be happy to answer any questions you may have.

Before the Committee on Small Business
United States House of Representatives

The FAA's Impact on Small Business in the General Aviation Industry

Statement of
Austin Heffernan
Owner and General Manager
Royal Aircraft Services

Representing the Aircraft Owners and Pilots Association

February 5, 2014

Chairman Graves and Members of the Committee:

I am Austin Heffernan, Owner and General Manager, Royal Aircraft Services.

Royal Aircraft Services is a highly regarded FAA Certified Repair Station located in Hagerstown Maryland. Our staff of 14 employees handles major structural repairs, aircraft painting, aircraft restoration and general maintenance for General Aviation aircraft owners based throughout the Mid-Atlantic United States.

I'm also representing the Aircraft Owners and Pilots Association (AOPA) of which I have been a member of since 2002. AOPA is a not-for-profit individual membership organization representing nearly 400,000 members. 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.

My testimony today will cover the following key points:

1. General aviation is a heavily regulated industry;
2. Rapidly changing technology offers new safety and operational benefits, but regulations have not kept pace with technological advancements, preventing general aviation from receiving these benefits; and
3. FAA policies and internal structures are increasing the cost of participation in general aviation without providing commensurate safety benefits.

General Aviation

As pilots flying in the United States, we are fortunate to have access to the safest and most efficient air transportation system in the world. The aviation network of 5,200 public-use airports, complemented by the more than 13,000 privately owned landing facilities is a unique national resource. General aviation is a significant economic engine that contributes approximately $150 billion to the annual gross domestic product and approximately 1.2 million jobs in communities nationwide. Each year, 170 million passengers fly using personal aviation, the equivalent of one of the nation's major airlines.

General aviation is of special importance to small businesses and an estimated 65% of all general aviation flights are conducted for business and public services. Additionally, the Small Business Administration has estimated that approximately 94% of the firms that provide cargo and passenger air transportation services are considered small businesses, as are 90% of businesses involved in the development and manufacture of aircraft and parts.

In addition to these businesses, general aviation activity directly supports thousands of small businesses from flight schools to repair shops to line operations. Thousands more small businesses of every type use general aviation to transport personnel, move products, extend their geographical reach, meet clients, provide support services, and manage distant operations.

FAA's Regulatory Oversight

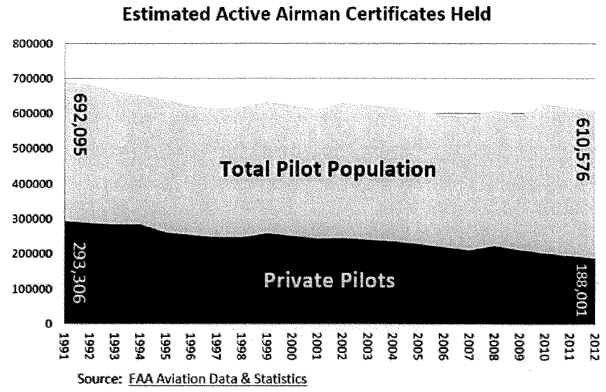
General Aviation is Heavily Regulated

The FAA oversees all aspects of general aviation, including recreational, private, business, and commercial flying. Pilot training, medical certification, aircraft certification and maintenance, operations in the National Airspace System, and many other aspects of utilizing aircraft and operating aviation businesses are regulated directly or indirectly by the FAA. These regulations have evolved over time into a complex and intertwined legal morass that often limits or slows the adoption of new safety enhancing technologies and practices.

The FAA routinely finds its hands tied by existing regulations when it wants to encourage the adoption of newer technologies and practices that could enhance safety. In many instances, the regulations have evolved in a way that forces the FAA to go well beyond its role as regulator and become directly involved with the operational aspects of the industry.

Impacts on the General Aviation Industry

While the amount of regulation increases, the general aviation industry shows many indications of decline and stagnation. Since 1991, the industry has seen a steady decline in the total number of pilots, with the greatest decrease in the number of private pilots—a loss of nearly 6,000 per year. These private pilots are the main market for many of the on-airport small businesses that make up the general aviation industry. Businesses providing flight training, aircraft rental and repair, engine overhauls, fuel, and other products and services are impacted by this decline.



Regulations Prevent General Aviation from Benefitting from New Technology

Current regulations, policies, and procedures make it difficult or impossible for general aviation to adopt and implement new tech-

nology. The following examples are representative of the types of challenges facing general aviation operators who want to use new safety technologies.

Technology in Flight Training - Use of Flight Simulation

Pilots and flight training providers have benefited greatly from advancements in simulation technology. Simulators give pilots a realistic experience of a wide range of flight conditions in a way that is far safer, more efficient, and more cost-effective than attempting to provide equivalent training while airborne.

While commercial and corporate aviation have had access to simulation for many years, affordable simulators have become available to most general aviation training providers only in the past decade or so. The FAA has been challenged to keep up with the advances in this area and has struggled to provide consistent, effective, and flexible oversight.

In January, the FAA issued a new policy in an attempt to update and standardize its patchwork of existing guidance, letters of authorization, and advisory circulars. Rather than promoting the use of this proven technology, the new policy actually reduces the amount of time a simulator can be used in some types of flight training until regulatory changes can be made. Industry has asked the FAA to rescind the new policy statement, initiate expedited rulemaking to allow a higher number of simulator hours to be credited, and then reissue its current guidance and standards.

Aircraft Certification Reform - Technology in New Aircraft

Just last week, the FAA Administrator and his senior staff met with the leaders of the major general aviation associations to discuss safety and the need to bring new technology into general aviation. Today's prescriptive and outdated rules inhibit innovation and are the major barrier to developing and producing safer aircraft. AOPA has long advocated streamlining the aircraft certification process and we are encouraged that a major FAA-industry effort is underway to reform the aircraft certification regulations (Part 23) so as to increase safety while decreasing cost. AOPA is actively engaged in this process.

In November, these efforts get a boost when the Small Airplane Revitalization Act was passed by Congress and signed into law by the President. I'd like to thank Chairman Graves and Small Business Committee Members Hanna, Heulskamp, and Collins for cosponsoring this bill.

Existing Aircraft Must Also Benefit from New Technology

While streamlining certification for new aircraft is important, reform efforts must be expanded to ensure that owners of existing aircraft can make safety improvements. The current FAA regulatory structure makes putting new technology into older aircraft challenging at best and prohibitive at worst. This issue was at the center of the industry-led portion of last month's safety discussions with the Administrator.

There are approximately 200,000 GA aircraft flying, and manufacturers produce just over 1,000 new aircraft each year. These numbers clearly indicate that the biggest safety payoffs will come from upgrading older airplanes. Making it easier to upgrade aircraft will have another payoff as well—creating well-paying jobs for those who design, manufacture, and install the new equipment.

The Part 23 Reorganization Aviation Rulemaking Committee has provided recommendations for changes to other regulations, such as Parts 21 and 43, and existing policies and procedures to improve the ability to modify, maintain, and upgrade existing aircraft. Industry would like the opportunity to work with the FAA to prioritize these areas and help develop changes that can enable and encourage the addition of safety enhancements, equipment upgrades, and new operational equipment for existing aircraft.

Moving Forward on One Safety Improvement

The FAA has indicated that, after nearly three years of work, it will soon release a new policy that is intended to streamline the approval of angle of attack indicators for existing aircraft. The angle of attack indicator is an important safety technology that could help reduce the number of accidents caused by loss of control—the leading cause of GA accidents. To date, retrofit of this technology has been hampered by the cost and complexity of the equipment—factors driven in large part by FAA regulations.

We look forward to reviewing the new policy and we're hopeful that it will serve as a model for bringing other non-required safety enhancements into general aviation more quickly and efficiently.

FAA policies and Internal Structures that are Increasing the Cost of Participation in the General Aviation Industry

Medical Certification for Private and Recreational Transportation

The FAA third-class medical certificate is primarily used by pilots who want to fly recreationally or for private transportation. The cost and regulatory process associated with obtaining and renewing the medical certificate, and the fear of being denied and sent through the bureaucratic hoops and extensive testing required to get it back, are contributing to the precipitous decline in number of private pilots.

A petition, presented by AOPA and EAA (Experimental Aircraft Association), seeks to reduce the cost and hassle of the FAA medical certification process while maintaining and potentially increasing safety through education. The petition would expand the FAA's existing driver's license medical standard to more aircraft and operations than currently allowed. That standard, which allows pilots who also hold a valid driver's license to certify their own fitness to fly, already exists for pilots flying under Sport Pilot rules and has been proven safe. The proposal would expand that privilege to pilots flying certain small piston-powered aircraft under specific conditions and would add a level of safety by requiring pilots to take

recurring training on how to effectively determine their fitness to fly.

AOPA and EAA conservatively estimated that giving pilots the option to use a driver's license standard instead of a third-class medical for certain operations would save pilots $241 million over 10 years while saving the government $11 million over the same period. Granting the petition wo9uld keep pilots flying and therefore supporting the small businesses at their local airports.

More than 16,000 comments were filed on the petition, and they were overwhelmingly favorable, but almost two years after the petition was filed, the FAA has not provided a formal response.

On December 11, 2013, Chairman Graves and fellow AOPA member Congressman Todd Rokita, both members of the House General Aviation Caucus, introduced the General Aviation Pilot Protection Act. The legislation goes a step beyond the AOPA-EAA petition. It would allow pilots to use the driver's license medical standard for noncommercial VFR flights in aircraft weighing up to 6,000 pounds with no more than six seats.

FAA Unable to Provide Approvals Required by Regulations

The current regulatory system requires the FAA to issue approvals, in the form of Air Agency Certificates, to many areas of general aviation operations. In some cases, these approvals are required before businesses can begin operating. Air Agency Certificates are required for charter/on demand operations (Part 135), flight schools (Part 141), training centers (Part 142), and repair stations (Part 145). In many of these areas of responsibility and in many parts of the country, FAA backlogs in issuing these certificates are significantly hindering the ability of small businesses to operate.

At the October 30, 2013 Aviation Subcommittee hearing on Certification Reform, the assistant inspector general for aviation audits for the Department of Transportation reported that the FAA has a current backlog of 1,029 air agency certificate applications. Of that backlog, 138 applications have been awaiting approval for more than three years and one has been stalled since 2006.

Industry is willing to work with the FAA to find a way to address these delays and to move forward with granting these approvals. It is troubling that the FAA implements these requirements by regulation but cannot provide the resources when operators are ready to demonstrate compliance.

Conclusion

In conclusion, we believe there are a number of steps the FAA can take to address the overregulation of general aviation while maintaining or increasing safety. Additionally, these changes will increase participation in general aviation, benefit small businesses, increase employment, and promote economic growth.

1. Congress should continue to urge decision makers to consider changing the policies, guidance, and regulations in ways

that will encourage and advance the use of modern technology in all aspects of aviation, especially the installation of technology in existing aircraft.

2. Congress should urge decision makers to focus attention on resolving the internal issues that are preventing and delaying issuance of required FAA approvals, thereby preventing many small businesses from starting or expanding.

3. We appreciate Congress' recent passage of the Small Aircraft Revitalization Act directing the FAA to streamline aircraft certification. This will have a significant impact on deploying new and improved safety technologies to general aviation aircraft. We look forward to Congress taking action on the General Aviation Pilot Protection Act, which if passed, would reduce the regulatory burden and cost on general aviation and encourage people to fly.

Aviation is American. It started here in this country and we need to maintain our leadership in this area. We need to find ways to encourage and grow this amazing industry and we appreciate your support. On behalf of the 14 employees of Royal Aircraft Services and the nearly 400,000 members of AOPA, thank you for your leadership in addressing the concerns of the general aviation industry so that it can continue to help small businesses nationwide grow and thrive.

Thank you for the opportunity to appear before this Committee.

STATEMENT OF

JAMAIL LARKINS

ASCENSION AIRCRAFT, INC.

REPRESENTING THE

NATIONAL BUSINESS AVIATION ASSOCIATION

BEFORE

THE COMMITTEE ON SMALL BUSINESS

U.S. HOUSE OF REPRESENTATIVES

REGARDING

THE FEDERAL AVIATION ADMINISTRATION'S IMPACT ON SMALL BUSINESSES IN THE GENERAL AVIATION INDUSTRY

FEBRUARY 5, 2014

Chairman Graves, Ranking Member Velázquez and members of the Committee, my name is Jamail Larkins, and I'm a businessman from Atlanta, Georgia.

I'm pleased to be here as a proud member of the National Business Aviation Association. My company, Ascension Aircraft, has been a member with the association since 2008.

While NBAA often appears before Congressional Committees to represent its Members, this is the first time I've testified before Congress. It's a privilege to be here.

Business Aviation: A Big Benefit for Small Businesses Across the U.S.

In 2008, I founded Ascension Aircraft, and today I serve as the company's CEO. Although my company is a regional leader in the sale of fractional-ownership shares of piston aircraft, the business employs just 19 people, including myself.

Over the years, I have found that one of the most effective ways to *sell* business aircraft is to *use* business aircraft. With a business airplane, I can quickly seize opportunities as they arise. The airplane enables me to meet face-to-face with potential clients, providing a level of service and accountability that helps me get a leg up on my competition, and build my company.

Of course, many of my clients are small business owners and entrepreneurs themselves. They are often located in out-of-the-way places, and like me, they recognize the many benefits an airplane can bring to their enterprises.

With a business airplane, an entrepreneur can travel to multiple cities for meetings in a single day, return to headquarters that same evening, and be back in the office the next day. With an airplane, a businessperson can transport tools or products that may be too large to fit into an airliner's overhead bin, or too delicate to be checked into an airliner's cargo hold. With a business airplane, an entrepreneur can efficiently manage work sites that are distant from each other, and are often located in small towns with little or no airline service.

Simply put, for many small business owners and entrepreneurs—people like me—the use of an airplane is vital to success. It is the tool that makes the business model work.

Interestingly, you don't often hear about companies like Ascension Aircraft when people talk about business aviation. Instead, people tend to focus on large Fortune 500 companies. But for every Fortune 500 company that relies on business aviation, there are eight or nine companies like mine—in fact, the business aviation community is made up mostly of small and mid-size enterprises.

Every member of this Committee has small businesses like mine in their state. And the use of an airplane often enables those companies, and the jobs that come with them, to remain in communities that can sometimes be harder to reach than the metropolitan areas.

That's a win not just for the companies using the airplanes, and their employees—it's a win for the countless thousands of workers at community airports where business aircraft fly. It's also a win for the many additional thousands of employees in the towns surrounding those airports, because their businesses often exist due to the activity at the local airfields.

The reason you've asked me here today is not just to talk about the benefits of business aviation to small enterprises, but about how the work of the Federal Aviation Administration affects those of us with small businesses.

If there is anything I'd like you to take from my testimony, it is this: The United States not only has the world's largest, safest, most diverse and most efficient aviation system—it is also the best system in the world for allowing small companies like mine to optimize business aviation, so that we can succeed in today's enormously competitive global economy.

That said, while America's aviation system is an enormous public benefit—one that should continue to be run by the government, with oversight from Congress—there are a number of ways the FAA could strengthen its relationship with the small business community, so that the policies and procedures involving the agency are more workable and effective, for the both the agency and the businesses that rely on an airplane.

In fact, I would offer that because business aviation is more regulated than other industries, the relationship between the FAA and the small businesses utilizing aircraft must be a productive one—not just today, but also when we think about the aviation system of the future, and how small businesses like mine will operate in it.

A Highly Regulated Community, A Need For FAA/Industry Collaboration

When we think about the regulatory regime for business aviation today, we know that, largely for safety reasons, stringent policy requirements are appropriately placed upon the industry.

The services needed to meet those requirements are largely provided by the FAA, which makes the agency critically important to the business aviation community. And when those services go unmet, or when onerous policies are implemented—sometimes without sufficient industry input—business aviation suffers, and its benefits to citizens, companies and communities, is jeopardized. Here are four examples to illustrate my point.

Example 1: Government Shutdowns Take A Terrible Toll on Industry

We know that the government shutdown last year led to the closure of the FAA's U.S. Aircraft Registry. As a result, aircraft could not be purchased, sold, imported, exported, and in some cases, flown.

I'm in the business of selling aircraft, so I have a first-hand understanding of the toll the registry shutdown had on companies in

my line of work. These are mostly small businesses, often family owned, and comprised of just a few people. They're located across the country, and when the government was shuttered, their business was stuck in an unending layover.

Fortunately, after 17 days, the government shutdown concluded, and the registry was reopened. But, the effects of the shutdown were felt by many in the aircraft-transaction business for weeks following the shutdown. Government and industry would be well served by working together to ensure that if a shutdown were to occur again, the registry would remain open.

Example 2: Aviation-Business Approval Backlog Has Hamstrung Job Creation

We also know that FAA policies are central to the operation of small aviation businesses, such as training centers, flight schools and on-demand charter operators, which require approval from the FAA before conducting business.

At the same time, as FAA resources are dwindling, the backlog of businesses attempting to gain certification and begin soliciting customers has swelled to nearly 1,000. Some businesses have been told that their wait for approval could take two to three years.

We know that small businesses like these are the lead drivers of job creation and economic investment in the U.S., which means we need for the FAA to find ways to streamline its start-up approval processes. That way, the growing number of general aviation businesses facing these needless delays can be approved to get underway, creating jobs and investing in local communities.

Example 3: Some Complicated Operating Requirements Need Streamlining

On the operations side of the industry, we know that many companies use aircraft that are subject to a raft of often-complex government requirements, related not only to equipage with specific navigation, communication and surveillance capabilities, but also requirements for specific government approval for the operator to use that equipment onboard the aircraft.

Among these requirements are rules for approval of aircraft operations using equipment allowing for Reduced Vertical Separation Minima (RVSM). Thanks to government/industry collaboration, RVSM-authorization requirements were recently smoothed, even as important safety standards were protected. There are many other, similar authorizations that could be streamlined as well, reducing the burden on businesses and government officials alike.

Example 4: Alarming New Policies for Pilots Are Emerging, Absent Industry Input

As an additional matter of concern for business aviation, I'll point to a policy under consideration that members of this Committee are likely familiar with: the FAA's controversial plan to begin subjecting pilots with a body mass index (BMI) of 40 or greater to Obstructive Sleep Apnea (OSA) screening prior to receiving a medical certification.

When this plan was introduced at the end of last year, NBAA, and its Member Companies—like mine—were alarmed. It seems that available data to confirm a link between OSA and flight safety is lacking, and that there is no clear indication that an additional screening requirement would improve aviation safety.

Just as troubling, the vast majority of pilots weren't provided an opportunity to learn of the FAA's plans, or been given a mechanism for providing feedback on the proposal. As a businessperson who has been a certificated pilot since my teenage years, this is a troubling development.

Mr. Chairman, the legislation which you and several of your Small Business Committee colleagues joined in co-sponsoring—H.R. 3578—would require the FAA to consult with industry stakeholders through the established rulemaking process before issuing any final requirement for pilots to undergo OSA screening.

It will also require the FAA to conduct a fully transparent, data-driven justification process for its proposal, which takes into account the full spectrum of costs, benefits and other important criteria before any OSA rule or regulation can take effect.

The Senate has introduced similar legislation. On behalf of NBAA and its Member Companies, I want to thank you and other Congressional leaders for supporting these measures.

So, Mr. Chairman and members of this Committee, as I said, it's clear that the relationship between the FAA and the small businesses operating in the aviation system which the agency manages, is a critically important one. And, with the four examples I just mentioned, there are ways we can enhance that relationship today. We can make it a more collaborative, effective relationship.

But equally important, we must ensure that, as we look to the future of the aviation system, government leaders understand what small business owners, and other stakeholders in general aviation, consider fundamental to America's continued aviation leadership.

An Imperative to Continue Strengthening A World-Leading Aviation System

When it comes to preserving the nation's leadership in the aviation arena, we know that much of the debate about how best to do that will take place in the context of the coming FAA reauthorization.

While the current authorization does not expire for almost two years, discussion on the next one has appropriately begun. And, it's with that in mind that I'll note the industry's long-standing, united view on some guiding principles for FAA reauthorization, and the related imperative of continued aviation system modernization.

- First, when it comes to paying for use of the aviation system, the fuel tax works best for everyone in general aviation. I know that, in past reauthorization debates, user fees have been proposed from some corners as a replacement for the fuel tax. As a small business owner, I also know that we don't need user fees—and the giant federal bureaucracy needed to collect

them—when fuel taxes have long been an efficient, reliable and proven method of collecting revenue to support aviation-system management and modernization.

- Second, as I mentioned earlier, the general aviation community continues to believe that direct Congressional oversight of the FAA funding system is necessary to ensure the availability of stable, consistent funding levels for our national aviation system. Congressional oversight will also ensure that the specific needs of all aviation industry stakeholders are taken into account when it comes to aviation policymaking.

- Third, a continued, strong, federal-funding commitment is necessary to maintain the strength of our national air transportation system.

I know that there will be a robust debate in the coming months on this issue, and I very much appreciate this opportunity to share with this committee my views as a small business entrepreneur who depends on our national aviation system to conduct and expand my business.

In conclusion, Mr. Chairman and Ranking Member Velazquez, I also appreciate the strong leadership you provide, and the bi-partisan support which this committee extends to the small business community.

I look forward to responding to any questions you may have. Thank you.

The FAA's Impact on Small Businesses in the General Aviation Industry

Kenneth J. Button, PhD, AcSS, FCILT, FCIHT

University Professor

School of Public Policy

George Mason University

Evidence to the U.S. House of Representative's Committee on Small Business

Room 2360 of the Rayburn House Office Building

February 5, 2014

The evidence considers the rationale for the Federal Aviation Administration intervening in markets for general aviation, and looks specifically at the public interest issues regarding safety, and the implications of policies to reduce accidents on the vitality of small businesses involved in general aviation. There is a focus on some elements of administrative costs of pursuing the social interest of increased safety. The evidence also offers some comments on recent and proposed legislation impacting on the way that the FAA handles regulations governing general aviation regulations and their reform.

Introduction

In the right context air transportation can provide a major economic stimulus to a region, city, or town. In a strict economic transportation sense it offers access to a larger market for local firms and can allow local residents to travel medium and long distances, albeit often not directly, for personal and business reasons. At a secondary level local airports, and the various aviation and non-aviation activities can provide local employment and generate income for the community. These benefits are clearly not true for all locations, there has, for example, to be a threshold of latent demand if any new airport is to be successful or an existing one expanded.

These benefits hold at any scale of aggregation, from for example the gains for the high- and bio-technologies areas of the National Capital Region from having a major hub airport at Dulles [1], to the economic advantages enjoyed by many of the smaller communities of Virginia that have local airports [2]. That airports, together with the air transportation associated with them, can, in an appropriate

[1] K.J. Button, and S. Lall, 'The economic of being an airline hub city', *Research in Transportation Economics,* Vol. 5, pp. 75–106, 1999.

[2] K.J. Button, 'The role of small airports in economic development' *Journal of Airport Management,* Vol. 4, No. 2, pp. 125–136, 2010.

context, generate considerable economic gains for local residences and firms is a pretty consistent finding of academic and other studies.

The roles of general aviation, and the businesses associated with it, are numerous and vary across airports and aviation activities. The general economic advantages for a community of having a general aviation facility are not only from the direct aviation effects associated with the use of the airport that range from air taxi and charter services, pilot training, and crop-spraying through the access business jets provide to be commercial world, but also from the income that comes from the maintenance of aircraft, fuel sales, and airport fees, and non-aviation sales that are often present at airports, such as parking and catering services. There are also wider, social benefits, often described as "public interest functions", that are associated with general aviation and with its role in supporting policing, medical emergency activities, fire fighting, and accessibility of small communities often being highlighted[3]. In addition, the general aviation sector is responsible for large numbers of jobs in the manufacture of aircraft and associated hard and software.

There is, however, an inherent danger in assessing these economic benefits because confusion may arise between correlations with causality. While general aviation can confer local economic benefits in terms of jobs and income, this causality in some cases may well run from the income levels and the interests of those living in an area to the development or enlargement of an aviation facility, rather than from the airport being the catalyst for local economic development. The few studies that have sought to separate out these causality effects, however, support the notion that by-and-large the general aviation facility is the driver, but these tend to use aggregate analysis and there may well be cases where causality is in the opposite direct.

The challenge, and a major one that is confronted by the legal duties of the U.S. Federal Aviation Administration, is to ensure that these benefits from general aviation when they accrue, and which can be very diverse in their nature, are obtained without excessive social costs. In particular there are costs of safety that come into play. The challenge can be further broken down in administrative efficiency terms by considering the benefit and costs imposed by the actions of the FAA in pursuing its duties; i.e. could any safety objective be obtained at lower "cost" to the general aviation sector?

The costs to general aviation of public interest interventions are diverse, and affect both the supply and demand side. They may involve direct costs to the manufacturers of hard or software in terms of standards and testing requirements, and periodical maintenance, and to airports in terms of the types of equipment needed to handle various forms and levels of traffic. These costs are in turn, and often in rather indirect ways, passed to the users of the hard- and software of the system. These users, essentially the pilots, also

[3] For more comprehensive study of the various roles of general aviation in economic development, see U.S. Federal Aviation Administration, *General Aviation Airports: A National Asset,* FAA, Washington DC, 2012.

have to meet a variety of competence and health requirements, that can take both money and time to acquire, and often have to provide information on their activities, or at least are asked to do so. In addition, there are the costs of administering the system that is partly funded from taxation.

The particular features of general aviation

General aviation covers a wide range of activities. A standard definition is that it embraces all civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire. It thus range from gliders and cowered parachutes to corporate jet flights involving a professional pilot flying a business aircraft; about 11% of private flying is by business people on their way to meetings etc. It constitutes, in terms of aircraft and their movements, by far the largest component of civil aviation; there are around 19,000 airports, helipads, and seaplane bases of varying sizes serving general aviation in the U.S., and its territories; just over 2,900 handle the movements. These facilities vary considerably in terms of tower control, runway features and ground support facilities; although the FAA classifies them into four broad categorizations. There is nearly a quarter of a million general aviation aircraft; of which the bulk is piston or turboprop aircraft; and the average age of small planes is about 40 years [4].

An emerging aspect of general aviation involves the use of unmanned systems (often termed "drones"); such aircraft are without an onboard human pilot being controlled either autonomously by computers in the vehicle or under the remote control of a pilot on the ground or in another vehicle. They take a variety of shapes, sizes, configurations, and characteristics and are being used in a small but growing number of civil applications, such as policing and firefighting, and nonmilitary security work, such as surveillance of pipelines. At present the use of drones is severely limited in the U.S., with the FAA developing a road map to allow their integration into the US airspace system.[5]We do not discuss the issues of the regulation of drones here, but their importance for small businesses, as suppliers of the hardware required, in operating drone services, and as customers for such services would seem to pose a variety of future regulatory challenges.

A large part of general aviation involves private activities that are of limited interest to policy makers. They involve actions of individuals that do not impinge on the general public or any large part of it, and the transactions between the individuals and companies involved—airports, pilots, maintenance companies, fuel providers, aircraft owners, aircraft manufactuers—take place in fairly simple markets, and involve standard forms of transactions and contracts. Since there is ample evidence that such markets, although often not completely perfect because of such things as market power and incomplete knowledge on the part of those involved,

[4] General Aviation Manufacturers Association, *2012, General Aviation Statistical,* GAMA, Washington D.C., 2013.

[5] U.S. Federal Aviation Administration, *Integration of Civil Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) Roadmap,* FAA, Washington, D.C. 2013.

are the best way of allocating resources, there is little reason for any significant interventions by government.

There is significant governmental intervention, however, in this market for other reasons. The three areas of public interest, setting aside generic matters involving such things as commercial contracts between the various providers of general aviation services and customers, being largely in the realms of finance, security, and safety. The first two of these are hardly touched upon here.

- Financing the infrastructure of general aviation is important in term of its efficient use but raising money is largely outside of the remit of the FAA, which is the subject of the hearing[6]. The FAA has spending responsibilities for many areas of spending and this does affect small businesses in general aviation. The evidence here, however, is general aviation uses approximately 16 percent of air traffic control services but contributes only 3 percent of the costs[7]. Raising this money and whether the ratio of spending to revenue collection is socially efficient is an on-going debate.
- Security is largely within the purview of the Transportation Security Administration rather than the FAA, although there are inevitable interfaces between them.[8]

That safety, our main focus is important is of little doubt, but equally it is unrealistic (if not impossible) to have 100% safety; it is simply too costly even if a viable definition of absolute safety could be devised. What public policy is *de facto* concerned with is developing what is often called ALARP; "as low as reasonably practical" level of risk of an accident. This entails balancing the risks of, in our case, an incident involving general aviation against the social benefits that general aviation confers. In terms of a pilot and aircraft owner, if there were no-one else involved then a private market, possibly involving the activities of insurers, would suffice to offer the appropriate ALARP level of risk; safety is the sole concern of the pilot and the aircraft owner and any incident has no implications for third parties.

The public interest element comes in when there is collateral damage with costs inflicted on:

- third-parties involved in general aviation, including pilots and their aircraft and those working at airfields;
- when there are costs of remedial action, such as involved in search and rescue operations for a crashed plane, and
- when individuals and "hardware" on the ground are affected.

While some of these items, such as property damage from a crashed aircraft or the medical bills of injured people, can be directly expressed in monetary terms, there is also clear evidence that people do value in monetary terms their safety in broader

[6] It was also the subject of a previous recent hearing, 112th Congress, 2nd Session.
[7] US Department of Transportation's Inspector General Office, Use of the National Air Space System, CR–2008–028, Washington DC, 2008.
[8] Some discussion of the main security issues are found in; U.S. Government Accountability Office, *General Aviation, Security Assessments at Selected Airports,* GAO–11–298, Washington D.C., 2011.

terms, and place a value on reductions in the risk of being killed or injured in an accident [9]. They also value a feeling of safety that can extend beyond fears of direct personal harm.

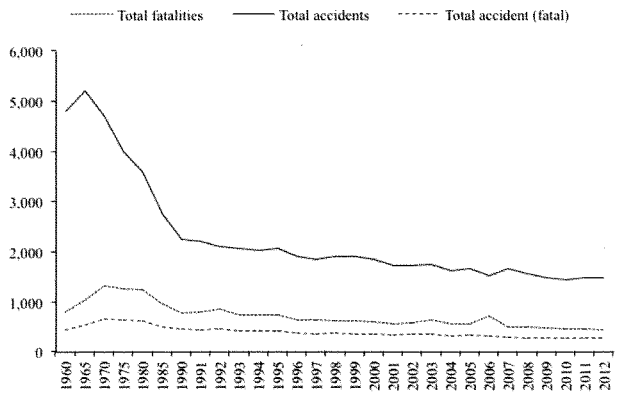
From an economic perspective, the issue is one of whether the "private" costs to the general aviation sector of safety regulations, and their implementation and enforcement, outweigh the benefits to third parties of the regulations. This involves not simply issues of objective measurement but also societal perceptions; as with security, it is often as much about what the public thinks the net benefits of general aviation are as about the actuarial calculations of the costs and be benefits. This boarder perspective essentially requires some form of benefit-cost assessment of the sector, and *ipso facto* of the policies of agencies such as the FAA.

The safety situation

The data show that over 90% of fatal aviation accidents in the U.S. involve general aviation, although the proportion of fatalities and injuries is far less because of the small vehicles involved. In terms of trends in the safety record of U.S. general aviation, Figure 1 shows a substantial decline in accidents since the 1960s with some flattening out in the downward trend after the 1990s (Some caution should be taken when inspecting the table, in that the time intervals prior to 1990 are in five-year periods and in annual periods thereafter.) As a summary picture, the national Transportation Safety Board found that fatal accidents fell by 24% between 1999 and 2011, and non-fatal accidents by 29%.

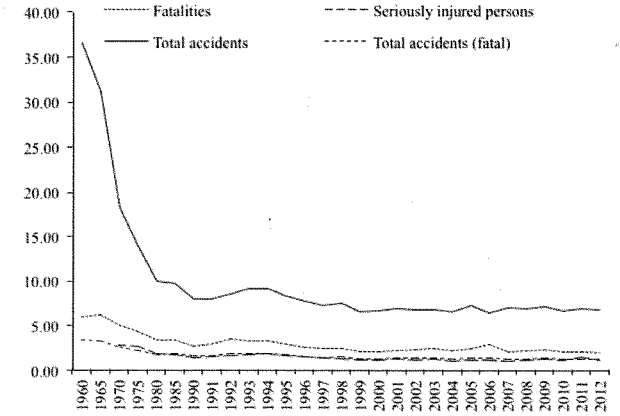
To get a clearer picture of the risk associated with general aviation activities, accidents need to be set against the level of activity in the industry. A standard measure of this activity is flight hours, although other measures such as the number of flights may also form a legitimate basis for calculations; most accidents occur during take or landing. Figure 2 provides the details and again, although retaining the caveat about nature of the horizontal axis, a general downward trend is seen in all indicators of accidents, with some flattening out in recent years. The situation is somewhat better than in most other countries where general aviation plays a smaller role in the economy.

[9] Jones-Lee, M. and Looms, G. (2003) Valuation of Safety, in D.A. Hensher and K.J. Button (eds), *Handbook of Transport and the Environment,* Elsevier, Oxford, pp. 451–462.



Source: Based on U.S. Department of Transportation, Bureau of Transportation Statistics, *U.S. General Aviation Safety Data*

FIGURE 1. Accident record of U.S. general aviation (1960-2012)



Source: Based on U.S. Department of Transportation, Bureau of Transportation Statistics, *U.S. General Aviation Safety Data*

FIGURE 2. U.S. general aviation accidents per 100,000 flight hours (1960-2012)

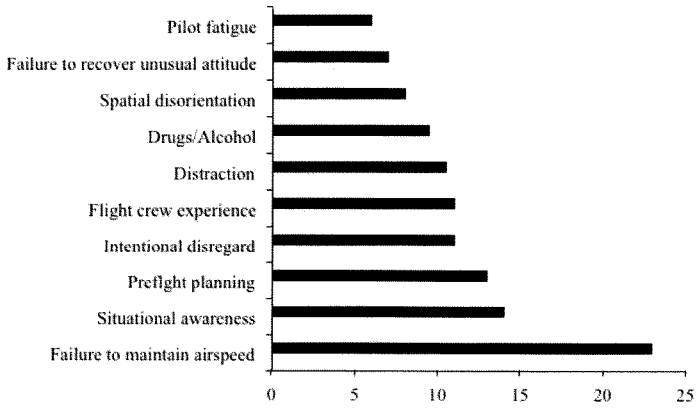
A problem with this analysis, however, is that the data on fight hours for general aviation is poor, making genuine risk analysis, a core calculation for public policy making, difficult; similar data limitations seem to exist helicopter emergency medical services[10] While there have been improvements in data collection, this inevitably comes at a cost to those engaged in general aviation and, in particular, in terms of additional documentation requirements.

[10] U.S. Government Accountability Office *Aviation Safety; Enhanced Oversight and Improved Availability of Risk-based Data Could Further improve Safety,* GAO–12–24, Washington, D.C., 2013.

Further, in terms of data, to gain better insights into causes of accidents, the FAA has enhanced its collection and maintenance of data on each certified pilot's recurrent training; the costs presumably being bourn as part of the certification fee.

In absolute terms the number of fatal accidents is relatively small in the U.S. (as a reference point, there were 34,080 road deaths and 2,362,000 injuries in 2012), and, from a public policy perspective, the vast majority of those involved were not third parties. A similar picture emerges involving non-fatal incidents. The issue centers less on actuarial risk calculations, and more on the public perceptions of the risk of an individual being impacted by a general aviation aircraft falling from the skies; but it is this perceived risk that forms the basis for providing public policy.

Although accidents can seldom be attributed to any single cause, or to a particular contributing factor, the overall pattern of causes and primary contributory factors to general aviation accidents have tended to remain fairly constant in recent years. It is clear that pilot error and loss of control are the main causes of accidents (NTSB data does suggest about 70% of fatal accidents, and 59% of non-fatal are due to pilot error, with pilots having less than 100 hours in the accident aircraft being particularly prone to involvement), but the details of contributing factors vary considerably as seen in Figure 3. The long-standing problems of pilot errors has been attributed to a variety of factors, such as inadequate recurrent training and poor training in cockpit management and aeronautical decision making.



Source: U.S. Federal Aviation, Administration *Transforming General Aviation Safety Five-Year Strategy*, FAA Flight Standards Service General Aviation and Commercial Division, AFS-800, Washington, 2011.

TABLE 3. Main contributory factors to general aviation accidents (2008-2009)

In addition to the broad trends in accidents there are also micropatterns to the incidents that differ according to the segment of the sector into which they fit [11]. Personal operations, for example have

[11] U.S. Government Accountability Office, *General Aviation Safety: Additional FAA Efforts could help Identify and Mitigate Safety Risks,* GAO–13–36, Washington D.C., 2012.

long dominated the accident statistics, and in terms of hardware, experimental, amateur-built aircraft contribute disproportionately (some 22% of accidents between 2009 and 2013 for only 5% of general aviation's flight hours), whereas corporate operations, while accounting for about 14% of flight hours, are only responsible for about 1% of fatal accidents. The last statistics largely reflects the more advanced technologies employed by most aircraft engaged in corporate operations and greater pilot experience. In terms of time trends, these differences are important to appreciate; for example between 2008 and 2010, when the economy was in serious recession, personal flying hours fell by about 4%, whereas safer, corporate operations fell by 15% and hence raw accident figures may to some extent be reflecting changes in the composition of general aviation as much as changes in safety.

Recent reforms to FAA oversight

The Federal Aviation Administration is essentially concerned with the public interest aspect of general aviation. It has the responsibility for administering aircraft and pilot certification, conducting safety oversight of pilot training and general aviation operations, and taking enforcement actions against pilots and others who violate federal aviation requirements and safety standards. It manifestly is a regulatory body.

Measuring the net effects of such regulations is, however, difficult. At one level there is the generic problem in assessing safety regulation of defining the counterfactual; just what would the accident situation be without the regulation. There is then the matter of assessing whether the actions pursued are the best given that interventions are justified to enhance social welfare. Finally, there are issues about whether the administrative costs of enforcing regulations are minimized; this is generally a contentious issue for those who have to conform with regulations because the costs of them are often focused, but the benefits extend across many parties.

In the latter context, and in relations to general aviation regulation, there have been concerns expressed about the burden of regulations, including the time and money costs of conformity and administration. Much of the discussion, however, has tended to be focused on anecdotal evidence and the collective views of those in professional and trade associations, capturing the views of the third parties affected is less easy [12].

The FAA has also itself responded to some of these concerns, pointing to streamlining certification processes that have been initiated since 2005 [13]. The challenges highlighted by the FAA in its responses include the problems posed by increases in the flow of

[12] The FAA does have general guidelines for values to be put into its decisions making (e.g. see GRA, *Incorporated Economic Values for FAA Investment and Regulatory Decisions. A Guide,* FAA, Washington DC, 2004) although this does not cover the costs imposed on the regulated of meeting such things as pilot certification.

[13] US Federal Aviation Administration Aircraft Certification Service, A Report from the Aircraft Certification Process Review and Reform Aviation Rulemaking Committee to the Federal Aviation Administration, *Recommendation on the Assessment of the Certification and Approval Process,* Washington DC, 2012.

new "aviation products"; technologies, new rulemaking and fleet-wide safety initiative, and the migration of technologies from large transport airplanes to general aviation aircraft, but there is an acceptance that increased efficiency is still possible. A clear problem is that of public accountability, regulatory agencies are naturally risk averse because any failure regarding any individual application can affects others seeking certifications.

The Administration has also adopted a multiple faceted approach, largely based on changing the culture within general aviation, to improving the safety record of general aviation, with the stated goal of reducing the accident rate by 10% between 2009 and 2018 [14]. A number of GAO reports suggest that progress is being made to improving the record of general aviation, although not without some criticism regarding the pace of change, and a number of remaining deficiencies in data collection [15]. It is also unclear how such a general target can easily be translated across such a diverse range of activities and technologies as general aviation, and where the safety record is so variable.

One issue is the difficulty in assessing the effectiveness of various initiatives because of inadequate informational bases. While the traditional data offers some general guidance as to safety tends, and there are efforts being made by the FAA to improve data, the industry is fragmented geographically, in terms of the services offered, and the by the types of suppliers involved making more issue specific statistics important to evaluate other than generic reforms.

Added to this, data collection of some types of information, such as on flight-hours (which have traditionally involved self-reporting) and on good indicators of a pilot's experience (which are important in assessing both the wider costs and the benefits of general aviation) has not been completed, and is time-consuming for users of the system to contribute. (This, or a lack of appreciation of the importance of the information, may explain low response rates to surveys). The collection also impacts on the FAA budget with, presumably, costs being passed on through certification fees. The GAO, for example, has pointed explicitly to this issue.[16] There is thus the age-old trade-off between data quality and the generalized costs of its collection; in this context it is important to up-date collection methods and what information is gathered as circumstances change.

One such area regarding data collection and comparability that may reduce some burden on users of the general aviation, is that the FAA and NTSB seem to be improving cooperation [17]. Combined data banks and data collection should offer provide some opportuni-

---

[14] U.S. Federal Aviation Administration, *Fact Sheet—General Aviation,* FAA, Washington, January 27, 2014.

[15] U.S. Government Accountability Office, *Aviation Safety: Certification and Approval Processes Are Generally Viewed as Working Well, but Better Evaluative Information Needed to Improve Efficiency,* GAO–11–14, Washington, D.C., 2010; and U.S. Government Accountability Office, *Aviation Safety: Status of Recommendations to Improve FAA's Certification and Approval Processes,* GAO–14–142T, Washington D.C., 2013.

[16] U.S. Government Accountability Office *Aviation Safety FAA Efforts Have Improved Safety, but Challenges Remain in Key Areas,* GAO–13–442T, Washington, D.C., 2013.

[17] U.S. Government Accountability Office *Aviation Safety FAA Efforts Have Improved Safety, but Challenges Remain in Key Areas,* GAO–13–442T, Washington, D.C., 2013.

ties to reduce surveys and reporting requirements. There may also be opportunities to combine data banks with the TSA.

In terms of policy initiatives to reduce burdens on the general aviation sector, the Small Airplane Revitalization Act into law in November 2013 initiating moves on the adoption of new certification regulations intended to increase safety and reduce the certification costs of new Part 23 general aviation airplanes.

The law requires the FAA to creation of a new category covering aircraft parts and other products aimed at streamlining the certification process for light airplanes and related aviation products. This would allow for the swifter adoption of new aircraft designs and safety equipment as well as cut costs. In particular, it aims to reduce certification costs by half for general aviation aircraft that weigh less than 12,500 pounds with the FAA implementing recommendations of the Aviation Rulemaking Committee, composed of aviation authorities and industry representatives. Basically, these aircraft will not have to be designed and certified under the same regulatory requirements as heavier, more complex and higher performing aircraft.

From the industrial and users perspective, this should cut production costs and certification costs; in particular, for practical reasons, components are currently certified at the level of their highest customer base making them costly for lower end aircraft. The regulations are also intended to reflect the lack of need for some equipment in the light general aviation market, and particularly in the experimental and light sports segment.

The concerns, and at this point they are concerns, are that the change is unlikely to make a difference because the bureaucratic nature of the FAA is unlikely to give up its power quickly, or to make certification easy, and that the issue of modifications of used planes, to update them with new safety equipment, autopilot, etc. is left unaddressed. Given the number of older aircraft, the impact on users is likely to be limited in the short run, although the measure should help manufacturers.

There is also the General Aviation Pilot Protection Act that has been under consideration, and is aimed at reducing bureaucracy relating to pilot activities. It would allow pilots to fly aircraft weighing less than 6,000 pounds, with six seats or less, flying under visual flight rules below 14,000 feet, and at speeds less than 250 knots as long as they meet the medical standards involved in attaining that current state driver's license, one argument being that a small plane is similar in size to an SUV and accidents due to "driver impairment" should be treated on a similar basis.

The aim is to reduce the hassle and cost of obtaining the Class III medical currently required. The evidence that large numbers of people are deterred from flying because of this requirement does not, however, seem strong. The more worrying aspect from a policy perspective is the two years or so that the FAA has taken to consider the matter.

Conclusions

That general aviation is important in a country as large, diverse and economically advanced as the U.S. seems difficult to question. That, by and large, the market has been effective in ensuring an efficient development of the sector, and allowing many of its benefits to be enjoyed also seems true. The challenge is that there is a public interest in general aviation that extends beyond those involved in the provision of the infrastructure and operational hardware, and those that make use of these.

In particular, matters of safety extend beyond individual flights to accidents involving others either in the air or on the ground; in effect to third parties. There is also a public perception, in part brought about by rare, but highly visible accidents, that general aviation is unsafe. In response to the safety reality, together with heightened public perceptions, the sector has been the subject to a variety of regulations. This has resulted in a variety of additional costs being introduced into the sector. Any additional costs are an obvious impediment to the growth of a sector, and need to be monitored to ensure that at least commensurate public benefits result.

That there is a need for some forms of regulation in the public interest seems reasonable, but it also needs to be focused on elements that generate the greatest safety risk otherwise there is a danger the development of the sector may be stymied by an over reaction by the public. In particular, given the number of accidents involving pilot errors of various types in smaller, older privately operated aircraft it seems efficient to focus attention on these rather than less accident-prone corporate operations. In sum, the degree and the ways that the FAA intervene in general aviation should be specific to particular issues so as to minimize the costs of its actions.