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FAA REAUTHORIZATION: PERSPECTIVES ON IMPROVING AIRPORT INFRASTRUCTURE AND AVIATION MANUFACTURING

HEARING

BEFORE THE

SUBCOMMITTEE ON AVIATION OPERATIONS, SAFETY, AND SECURITY

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

MARCH 23, 2017

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

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FAA REAUTHORIZATION: PERSPECTIVES ON IMPROVING AIRPORT INFRASTRUCTURE AND AVIATION MANUFACTURING

THURSDAY, MARCH 23, 2017

U.S. SENATE,
SUBCOMMITTEE ON AVIATION OPERATIONS, SAFETY, AND SECURITY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:01 a.m. in room SR–253, Russell Senate Office Building, Hon. Roy Blunt, Chairman of the Subcommittee, presiding.

Present: Senators Blunt [presiding], Wicker, Cruz, Fischer, Moran, Sullivan, Heller, Inhofe, Gardner, Young, Cantwell, Nelson, Klobuchar, Booker, Peters, Duckworth, and Hassan.

OPENING STATEMENT OF HON. ROY BLUNT, U.S. SENATOR FROM MISSOURI

Senator BLUNT. The hearing will come to order. I am certainly pleased to have the two panels we have with us today. The first panel I will introduce in just a minute, and then we will get to the second panel after we have heard from and have had a chance to ask some questions of our first panel.

This hearing is the first of a series that Senator Cantwell and I intend to have to look at the reauthorization of the Federal Aviation Administration.

Civil aviation is, obviously, critically important to our economy. According to FAA statistics, in Fiscal Year 2014, the aviation industry, which is collectively made up of airports, air carriers, and manufacturers, supported 10.6 million jobs, contributed $1.6 trillion in economic activity, and accounted for 5.1 percent of the U.S. gross domestic product.

Today's panels will focus on two important subjects: first, airport infrastructure and the funding of capital needs through the FAA's Airport Improvement Program, federally-authorized passenger facility charges, and other things the Federal Government does to encourage and help meet those capital needs; second, the FAA's regulatory certification process and an examination of further reforms that could improve safety while also enhancing competitiveness in the global marketplace for U.S. aviation products.

Regarding the first panel on infrastructure, we are very mindful that our Nation's airport transportation system could not exist without the important relationship between airports and airlines,

both of whom are well-represented on this panel. The United States has nearly 20,000 airports, ranging from the largest international hubs to the smallest airfields, all providing important services to the aviation community and to our economy.

Of these, over 3,000 are eligible for Federal funding assistance. The Federal Government supports airport infrastructure primarily in three ways: one, grants to increase safety and capacity through the Airport Improvement Program; two, federally-authorized fees on passenger enplanements to support capacity and terminal projects; and third, the tax-exempt bonds issued by states and local authorities for airport improvements.

Despite this Federal support and the efforts made by local communities and the airlines themselves, the American Society of Civil Engineers recently noted that the infrastructure of airports is not keeping up with demand. In fact, the grade that the civil engineers gave to the airport infrastructure was a grade of D, which is mostly below standard, and that is, of course, not where anybody wants to be.

So we will be talking about those issues today. And before we do that, I would like to turn to the Ranking Member, Senator Cantwell, and then the Ranking Member of the Full Committee, Senator Nelson, for any comments they want to make.

Senator CANTWELL. Thank you, Mr. Chairman. I would like to defer to the Ranking Member of the Full Committee to make any kind of comments he would like to make before I make mine.

Senator NELSON. Thank you, Madam Ranking Member.

Senator CANTWELL. Can I say something else?

Senator NELSON. Of course.

Senator CANTWELL. Can I just say: Go, Gonzaga, tonight. Can I say that?

[Laughter.]

Senator CANTWELL. Thank you.

STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM FLORIDA

Senator NELSON. Well, this is super important because airports and airplane certification have to stay up with the times, and with the increased traffic in airports. There is a limited amount of money that airports have in order to be able to stay up with the needs, both capacity and safety, and the Passenger Facility Charge is one of the few, and it has not been raised in nearly 16 years.

So we have to face the music, particularly when we see skinny budgets being produced that cause a slimming down of a lot of the nondefense part of the budget, and you cannot keep handling increased traffic and increased capacity at airports without attending to the expansion needs and the safety needs. It is as simple as that.

When it comes to aircraft certification, we simply cannot skimp on anything. We can be more efficient, but we cannot skimp, because that is certifying an aircraft of being airworthy to carry people.

Then if all that were not enough, I know it is not within the purview of this hearing, but we have these increased threats that we are picking up in our intelligence community. It is going to cause

further disruption in airports. It is going to cause a slowing down of people going through TSA and especially abroad in the points of last departure coming into the USA that has been noted by the Department of Homeland Security.

So airlines and airports are going to continue to have challenges, and we have to meet those challenges.

Thank you, Mr. Chairman.

Senator BLUNT. Thank you, Senator.

STATEMENT OF HON. MARIA CANTWELL,
U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Well, thank you, Senator Nelson, and thank you, Chairman Blunt, for holding this important hearing.

And for all the witnesses who are going to be here today, as the Ranking Member of the Committee said, these are very, very important issues to our economy of the future, and continuing to make sure we make the investments in how this critical infrastructure helps our communities grow is definitely of utmost importance in the state of Washington and I am sure in many other parts of the United States as well.

So I want to first take a moment to acknowledge Peggy Gilligan as she approaches retirement. I know she is on our second panel. After 3-plus decades of service to the FAA, the fact that air travel is safer today is due to a large amount of her work that is instrumental in FAA's successful efforts to have the flying public be so safe. So we wish her all the best in retirement.

In 2016, over 825 million passengers traveled in our domestic aviation system. And while people travel for many different reasons, nearly all of them will have passed through some of the 389 commercial service airports that comprise the core of our airport network. These airports come in all shapes and sizes, but each is critical to its community services and to its community's economic abilities.

The impact of air service, what it has on our economy, cannot be overstated. In the state of Washington, for example, we know that 97 percent—97 percent—of gross business income is generated by businesses within 10 miles of an airport, and 70 percent of businesses within a 5-mile radius of an airport.

So the public aviation authorities and local governments, each airport has a mission to serve the community, provide connectivity for consumers and products, and, indeed, the services of our entire community.

Congress created the Passenger Facility Charge in 1990 to fund the needed airport infrastructure projects, and these PFC fees, which are collected as part of the airline ticket, are locally levied user fees that are invested directly back into the airport.

I know we just are making a major expansion at our North Terminal that is going to help us add 80 flights.

While the PFC is a critical component of airport funding, it is also one of the several funding streams available to airports, which also include the FAA's improvement program and tax exempt bonds, and State and local grants.

As Congress again debates whether to use the PFC in an aggressive way, we must consider how airports will invest these local dol-

lars. As part of that discussion, I hope we can find some ways to improve the experience for the air-traveling public. Much can be done in this regard, including, in my opinion, making sure airports have the right options for food, a visual paging system for the hearing loss, and making sure terminals are configured to handle the large crowds that we are seeing.

I also know that many Members of this Committee and all across the Congress have concerns about the Contract Tower Program and its health. Contract towers provide a vital and efficient layer of safety to our national aerospace system, and I look forward to working with my colleagues to ensure that the health of these contract tower programs remain into the future.

With the second panel, we are also going to examine another issue of critical importance—aviation manufacturing. Our Nation's economy depends on civil aviation, which connects businesses and consumers around the globe. And here in the United States, civil aviation supports 11.8 million jobs, and civil aviation manufacturing is the Nation's number one net exporter, with a positive trade balance of nearly $60 billion.

In my home state, obviously, aerospace manufacturing is huge—252,000 jobs and more than $69 billion in gross revenues.

So aviation manufacturing is critical to our Nation's economy and world-class equipment and technology that is based on it. In order to preserve that, we need the Export-Import Bank. The Export-Import Bank finances U.S. exports of manufacturers' goods and services to maintain our competitiveness. And the President needs to make sure he is making appointments to this Board so that the Board can function as it has been designed to do.

In last year's Senate FAA bill, we passed with broad support language to improve the FAA certification process. And although the language on certification was not ultimately part of the FAA extension bill, I plan to continue to work on that as we move toward legislation this year.

As the FAA improves safety function, we must continue to make sure the certification process is predictable and efficient.

So with that, Mr. Chairman, I certainly appreciate the witnesses being here today and your focus on helping us continue to be very, very good partners with local businesses and communities on a very strong FAA bill this year.

Thank you.

Senator BLUNT. Thank you, Senator Cantwell and Senator Nelson.

Let's go to our first panel. We have Rhonda Hamm-Niebruegge, the Executive Director of the St. Louis Lambert International Airport, and Bob Montgomery, the Vice President of Airport Affairs for Southwest Airlines.

Rhonda, if you want to make some comments? And anything you want to insert in the record that you do not cover, you can.

And then we will go to Mr. Montgomery.

STATEMENT OF RHONDA K. HAMM-NIEBRUEGGE, EXECUTIVE DIRECTOR, ST. LOUIS LAMBERT INTERNATIONAL AIRPORT

Ms. HAMM-NIEBRUEGGE. Good morning, everyone. Thank you for allowing me to be here.

As Senator Blunt said, my name is Rhonda Hamm-Niebruegge, and I have had the great pleasure of running the St. Louis Lambert International Airport since 2010. Prior to that, 27 years of my adult life were spent on the airline side. So I started at LaGuardia Airport right out of college with Ozark Airlines in 1982, became part of TWA in 1986, worked my way up to Vice President of North American operations responsible for 101 airports within the TWA system, became a part of the American Airline system in 2001, and retired in 2009.

So my entire adult life and career has been in this business. I have a great passion for aviation and what it brings to the economy.

So with that being said, I would like to take this opportunity to thank Chairman Blunt, Ranking Member Cantwell, and members of the Aviation Subcommittee, for the opportunity to appear before you today to outline the pressing infrastructure and financial needs, not only of St. Louis Lambert International but all of our Nation's airports.

In my testimony today, I hope to highlight how we can meet those needs without affecting the Federal budget or incurring more debt.

Earlier this month, Airports Council International North America released its latest study outlining $100 billion in infrastructure needs facing our Nation's airports between 2017 and 2021, and highlighting a significant funding shortfall to meet those needs.

These unmet needs must be addressed if airports are to continue to be the economic engines that they are today. St. Louis Lambert, for example, has a $4 billion economic impact to the state of Missouri and Southern Illinois, and that was a study done by almost 4 years ago, so that number has grown since then.

And it is important that we realize that this is not only business traffic but, obviously, it is tourism as well. The United States takes the risk of slipping further into the international rankings of expenditures on infrastructure from our present embarrassing position of 10th in the world, according to 2016 World Bank rankings. An earlier study by the World Economic Forum placed us at 23rd in the world. And recently, as Chairman Blunt said, civil engineers gave U.S. infrastructure and airports a D rating.

The ACI study points out several key findings that are worth noting. Large hub airports handle 72.6 percent of all enplanements, and they represent $60.4 billion of infrastructure needs over the next 5 years. Medium hubs, such as St. Louis Lambert, handle 15.4 percent of all enplanements, and we account for $11.7 billion of infrastructure needs, and that is in that same time period. Small hubs handle 8.4 percent of all enplanements and account for $8.5 billion.

When you look at this, we have a $20 billion annual need for airport infrastructure, and that far surpasses the amount of available funding today that can be generated by net income, the current PFC revenue, and AIP grants.

I make these points to stress whether you are Senators from a large, medium, or a small hub airport, you will hear from all of your local officials running airports that this is a dire need, and the funding simply is not there.

The good news is that we do feel the economy is improving, and the demand on our facilities is rapidly growing. The bad news is that Federal AIP funds are limited and the restrictions on other revenue tools, such as the Passenger Facility Charge, which has been capped at $4.50 in 2000, are simply tying our hands.

Congress can dramatically improve our resource deficit and promote self-sufficiency of U.S. airports with no Federal investment by increasing or outright eliminating the PFC cap. Since the cap was last increased, PFCs have lost 50 percent of their purchasing power. An increase or a removal of the cap would restore PFC purchasing power while also allowing local officials to meet local needs without impact to the Federal budget.

Locally generated user fees are the most logical way to deal with our infrastructure requirements, coupled with existing AIP funds, airport-generated revenue, and, as necessary, long-term financing.

I mention long-term financing because many of us are concerned about proposals being discussed on Capitol Hill to eliminate an important financing tool relied on by airports, and that is tax-free municipal bonds. Considering the infrastructure needs airports and cities alike are facing, the last thing we need is the loss of tax-free municipal bonds, which, in many cases, are the funding mechanisms of last resort.

In addition, I should mention that due to competition for funds, some vitally needed airport projects are never approved because they rank lower on the overall list of eligible AIP items, and the funding is simply not enough to go around. And, therefore, these projects can only be done with PFCs, airport revenues, or long-term financing.

Finally, I would like to remind the Committee that every PFC application must undergo the same scrutiny by the FAA as an AIP grant. The DOT Inspector General will tell you that the PFC program has a stellar record since it was enacted in 1990 in meeting all requirements.

And I would remind Senators representing smaller airports that they would stand to benefit even greater since large airports enacting a higher PFC would forgo their annual enplanement formula, thereby allowing more funds for smaller and medium airports.

Just last year, several well-respected conservative organizations, such as the Competitive Enterprise Institute, the Tax Foundation, and the Center for Freedom and Prosperity, have all endorsed removing the cap or increasing the PFC, and they have made two very good observations.

One is that PFCs are directly invested back into your local airport, and unlike a tax, it never goes to Washington. It is a local option user fee with local officials and FAA oversight making sure that they are invested in the local economy.

Second, almost all airlines, with the exclusion of our good friends at Southwest, charge willingly additional bag fees, preferred seating, change fees, yet they balk at airports allowing us to increase our fees at all, which benefits their customers and the overall experience.

Senator BLUNT. I think we need to move on.

Ms. HAMM-NIEBRUEGGE. Move on? OK.

In closing, I would just like to tell you that despite all the challenges that we at airports have seen and some of the large debt that we have, like at St. Louis Lambert, we have never once defaulted on paying our debt—never once. Even in our darkest days when we were de-hubbed, we never failed to pay a single debt that was due.

I along with many other airport directors have been credible stewards of the facilities we manage. And as leaders, we are not just ensuring the safety of our passengers and our employees, but out of necessity to survive, we have become experts in many things—in financial transactions, in customer service trends, in development, in community relations, in public speaking, and in complying with the ever-growing Federal regulations. We wear more hats on a daily basis than most professions do.

So I would like to ask that you hear our concerns today, that you recognize the time and effort that we put in, and I would ask that we have this PFC increase.

Thank you for your time.

[The prepared statement of Ms. Hamm-Niebruegge follows:]

PREPARED STATEMENT OF RHONDA K. HAMM-NIEBRUEGGE, DIRECTOR, ST. LOUIS LAMBERT INTERNATIONAL AIRPORT

I would like to take this opportunity to thank Chairman Blunt, Ranking Member Cantwell, and members of the Aviation Subcommittee for this opportunity to appear before you today to outline the pressing infrastructure and financial needs of not only St. Louis Lambert, but of all of our Nation's airports. In my testimony today, I hope to highlight how we can meet those needs without affecting the Federal budget or incurring more debt.

Earlier this month, Airports Council International—North America released its latest study outlining $100 Billion in infrastructure needs facing our Nation's airports between 2017 and 2021, and highlighting a significant funding shortfall to meet the demand. These unmet funding needs must be addressed if airports are to remain the economic engines they have always been. St. Louis Lambert, for example, has an estimated $4 billion and growing economic impact on the Missouri and Southern Illinois economies. The United States takes the risk of slipping further in the international rankings of expenditures on infrastructure from our present embarrassing position of 10th in the world according to the 2016 World Bank rankings. An earlier study by the World Economic Forum placed us at 23rd in the world. Recently the American Society of Civil Engineers gave U.S. infrastructure a "D" rating.

The ACI–NA study points out several key findings that are worth noting. Large hub airports, handling 72.6 percent of all enplanements, represent $60.4 billion of total infrastructure needs over the next 5 years and reported a 50 percent increase in needed projects from 2015. Medium hubs such as St. Louis Lambert, handle 15.4 percent of all enplanements, account for $11.7 billion in infrastructure needs over that same period. Small hubs handle 8.4 percent of all enplanements and account for $8.5 billion in infrastructure needs. The $20 billion overall average annual airport infrastructure needs far surpass the available funding from airport generated net income, current PFC revenues, and AIP grant funds. I make these points to stress that whether the Senators on this Committee or any member of the Senate, represent small, medial or large airports, you will all hear from your local airport officials about the dire shortfall in funding identified in the study.

The good news is that the economy is recovering and demand on our facilities is rapidly growing. The bad news is that Federal AIP funds are limited and restrictions on other revenue raising tools such as the Passenger Facility Charge, which has been capped at $4.50 since 2000, are tying our hands.

Congress can dramatically improve our resources deficit and promote the self-sufficiency of U.S. airports with no new Federal investment by increasing or outright eliminating the statutory PFC cap. Since the cap was last increased, PFCs have lost approximately 50 percent of their purchasing power. An increase or removal of the cap would restore PFCs lost purchasing power while also allowing local officials to meet local needs with no impact on the Federal budget.

Locally generated user fees are the most logical way to deal with our infrastructure requirements, coupled with existing AIP funds, airport-generated revenue, and, as necessary, long-term financing. I mention long-term financing because many of us are concerned with proposals, being discussed on Capitol Hill to eliminate an important financing tool relied by airports: tax free Municipal Bonds. Considering the infrastructure needs airports and cities alike are facing, the last thing we need is the loss of tax free Municipal Bonds, which in many cases are the funding mechanism of last resort. In addition, I should mention that due to competition for funds, some vitally needed airport projects are never approved because they rank lower on the overall list of eligible AIP items and the funding is simply not enough to go around and therefore can only be done with PFCs, airport revenues, or long-term financing. Finally, I would remind the Committee that every PFC application must undergo the same scrutiny by the FAA as an AIP grant. The DOT Inspector General will tell you that the PFC program has a stellar record since it was enacted in 1990 in meeting all FAA requirements. I would remind Senators representing smaller airports that they would stand to benefit since airports enacting a higher PFC would forego their annual enplanement formula funds thereby providing more funds for the FAA to distribute to smaller airports.

Just last year, several well-respected, conservative organizations such as the Competitive Enterprise Institute, the Tax Foundation and the center for Freedom and Prosperity have all endorsed removing the cap or increasing the PFC and make two of many important pro PFC observations:

1. PFC's are invested directly into airports, and unlike a tax, it never goes back to Washington. It is a local option user fee with local officials deciding, with FAA oversight, the best way to invest and the funds go directly into the local economy.
2. Many airlines willingly charge additional fees for bags, preferred seats, itinerary changes, etc., yet they balk at allowing airports to increase fees to improve our airports, which benefits their customers.

To elaborate further on the proposal to increase the PFC, and for your benefit Senator Blunt, Lambert would benefit particularly with an increase in the PFC cap. At present, the majority of our PFC revenue is devoted to reducing the 554 million in debt that we incurred in constructing our vitally needed parallel runway. An increase in the PFC cap could not only be used to fund projects that have been deferred due to a lack of funding, but would provide a substantial opportunity to pay down existing debt sooner. Reducing our current debt is extremely important as we try to grow back the connecting traffic that we lost in recent years. Therefore, while we, St. Louis Lambert, have no looming need to build new runways or more gates, we still face infrastructure replacement needs that have been deferred far too long because of our significant debt.

In closing, I would also like to note that we have never once defaulted on our debt payments! Never once! I, along with many other Airport Directors, have been incredible stewards of the facilities we manage. As airport leaders, we are not just ensuring the safety of our passengers and employees. Out of necessity to survive and yes, even thrive, we have become experts in financial transactions, in customer service trends, in development, in community relations, in public speaking, in complying with ever-growing Federal regulations and a host of other things. On a daily basis, we wear more hats than most professions wear in a lifetime. We do not complain and find ways to get things done. I hope for doing all of that, we have earned your respect! I hope you realize we are not whiners, beggars, or a group that looks for the easy road. That is not who we are. Now is the time to listen to our concerns. We cannot pull more tricks out of the hat. The challenges are simply too big. We need this PFC increase as it truly is the only option left.

Thank you for your time today.

Senator BLUNT. Thank you, Ms. Hamm-Niebruegge.

Mr. Montgomery.

STATEMENT OF BOB MONTGOMERY, VICE PRESIDENT, AIRPORT AFFAIRS, SOUTHWEST AIRLINES

Mr. MONTGOMERY. Good morning, Chairman Blunt, Senator Cantwell, and members of this Committee. My name is Bob Montgomery, and I handle airport affairs for Southwest Airlines, and thank you for the opportunity to address you today.

Forty years ago, I started working for Southwest Airlines in Lubbock, Texas, as a part-time ramp agent. For the last 33 years, I have focused almost exclusively on airports. My task in airport affairs is to work directly with airport directors, like my friend and fellow panel member, Rhonda Hamm-Niebruegge, to determine how best to meet the infrastructure needs in airports all around the country.

I can say with confidence that I have never seen an airport with a construction need that has not been addressed due to the lack of funding. There may be other reasons for delay to an important project, but the lack of funding is never the primary reason. Simply put, if there is a capital need, together with the airport, we can, we will, and we do find ways to fund it.

Since 2008, focusing just on the large hub airports in this country, which are generally the top 30 airports, we have built, we are in the process of building, or we have agreed to build over $100 billion worth of improvements. Of this amount, about 55 percent are financed with general airport revenue bonds, with debt. Twenty percent of that amount is provided for by PFCs, the Passenger Facility Charge. Ten percent have been generated locally, and about 7 percent provided by various grants, including the AIP. About 6 percent of that total amount has been supported by private airline and third-party investment.

Regarding the concerns of this body, Southwest encourages you to increase the annual funding levels for AIP grants, especially considering that the Airport and Airways Trust Fund has and enjoys over a $6 billion surplus.

We object, however, to raising the Passenger Facility Charge above the current cap of $4.50 per segment. We see simply no good justification to raise our customers' tax and fee burden.

A list of reasons why we oppose the PFC increase is provided in my written testimony. However, I would like to quickly mention just a few points.

First, our customers are already overtaxed. Our average fares are decreasing, and our customers' tax burden is increasing relative to the ticket price.

Second, airline consumers are very, very sensitive to price. Any increase in the PFC means a fare increase for our customers, and that usually means less customers.

Third, a PFC increase will hurt smaller markets disproportionately. Profitably serving these smaller markets can be very challenging, and we need all the customers that we can get. Additionally, many small market customers connect, which doubles the impact of a PFC increase to them.

Finally, commercial airports have many sources of revenues, but all of those sources depend on customers. PFC revenues have doubled since the year 2000 from $1.6 billion annually to over $3 billion annually, and other airport revenues have also increased much faster than the rate of inflation, all because we are attracting more customers.

In our American system of airports, the user pays for the system. That user is the customer. Whether it is through the fare that they purchased the goods and services they buy, or the taxes and fees assessed by our governmental entities, the customer pays for it all.

We seem to have two paths to follow. We can grow the number of customers using our system, which grows all of our other customer-related resources, or we can increase the tax burden upon them.

It requires a very optimistic person to think that we can both grow customers and saddle them with additional costs. I am not of that camp. Neither is Southwest Airlines.

We want to spend our energies focusing on the increasing tide that floats all boats, and that is growing our customer base. We do not want to risk killing or maiming the golden goose through higher fees or taxes.

In conclusion, we have a wonderful bag of tools to apply to the airport infrastructure challenge in this country. The most important tool, however, is a willing and a strong hand to hold and make use of the tool. In partnership with great airport operators, like my friend Rhonda, we will succeed.

Thank you for allowing me to testify today, and I am happy to answer any questions that you might have.

[The prepared statement of Mr. Montgomery follows:]

PREPARED STATEMENT OF BOB MONTGOMERY, VICE PRESIDENT, AIRPORT AFFAIRS, SOUTHWEST AIRLINES

Good morning, Chairman Blunt, Senator Cantwell and members of this Subcommittee. I am Bob Montgomery, and I handle Airport Affairs for Southwest Airlines. I am happy to be here today.

I started working for Southwest in 1977, as a Ramp Agent in Lubbock, Texas, when Southwest was just an intrastate airline. I'm proud to be in my 40th year with Southwest—a company that continues to grow and compete.

Southwest now serves over 120 million Customers annually, employs over 53,000 "Co-Hearts," and operates a fleet of over 700 Boeing 737 airplanes. As a longtime Southwest Employee, I am most proud that Southwest has never had an Employee layoff or furlough during its 46-year history and has provided its Employees with annual profit-sharing for 43 straight years.

Over the past 33 years, I have focused almost exclusively on airports. My task in Airport Affairs is to work with Airport Directors like my fellow panel member, Rhonda Hamm-Niebruegge, to determine how best to meet infrastructure needs in airports all around the Country. In that role, I have overseen billions-upon-billions of dollars in airport capital investments at over 100 airports.

We have been successful in small airports, such as the Country's newest airport, Northwest Florida Beaches Airport in Panama City, Florida. We've been successful in medium, growing airports such as Austin Bergstrom Airport, or Dallas Love Field. We've found a way to meet the needs in airports ravaged by changing airline strategies, such as St. Louis International Airport or Pittsburg. And, we've found ways to succeed in large, complex airports such as Los Angeles or Las Vegas. We've even found ways to meet the challenge in notorious airports such as New York's LaGuardia.

I can say with confidence that I have NEVER seen an airport with a construction NEED that has not been addressed due to the lack of funding. There may be political reasons for an airport not proceeding with an important project—which I will explain later—or the lack of a proper business case, but the lack of funding is not the reason. Simply put, if there's a capital need, together with the airport, we can and will find a way to fund it.

Now, when I use the word "need," I mean a critical infrastructure improvement related to safety, security, or airport capacity. Airport capacity includes accommodating new airlines or the anticipated growth in flights or passenger traffic. During our 46-year history, it has often been Southwest that has been the new entrant or the fast-growing airline at an airport, and our airport needs have been met one way or another.

"Wants" are insatiable—they can never be fully satisfied. I am sure every government agency wants more money. Airports are no different. I know on the private side, I'd like to have more money!

Normally, however, check and balances are in place to ensure the prudent use of scarce resources. In the landlord-tenant relationship—in which airports are the landlords and airlines are the tenants—sometimes we debate the merits of a "Cadillac solution" over a "Chevy solution" when working to address an infrastructure challenge. Usually, a middle ground is found and the project moves forward.

We have many good tools in the airport development toolbox. The largest tool, and the most important, is the General Airport Revenue Bond. This is our mortgage, if you will. The next most used tool is the PFC, which you are familiar with. Next is airport retained earnings, which come from the car you park, the hot dog you buy, or the magazine you purchase for your flight. Grants are an important tool, as is the Rent Car Facility Charge. Finally, we have the tool of direct airline and third party investment.

Since 2008, at just the large hub airports (generally the top 30 airports in the country), we have built, are in the process of building, or have agreed to build over $100 billion worth of improvements. Of this amount, about 55 percent is financed with GARBS, 20 percent provided for by PFC's, 10 percent generated locally, and 7 percent provided by various grants, including AIP. The remaining 8 percent has been provided by private investment and the CFC.

Before I go any further, let me distinguish between commercial airports and general aviation airports. I am certainly not an expert on the capital funding needs of most general aviation airports. I understand those needs are often addressed through FAA grants under the Airport Improvement Program (AIP).

Southwest has no objection to increasing the annual funding levels for AIP grants, especially considering the Airport and Airways Trust Fund has over a $6 billion surplus. It is important to note that over 90 percent of those monies are paid through user fees collected from commercial airline passengers—in particular, the 7.5 percent excise tax and the $4.10 segment fee. Therefore, we see no reason why AIP funding cannot be increased for both commercial airports and general aviation airports.

We object, however, to raising the Passenger Facility Charge above the current cap of $4.50 per segment. There is simply no good justification to raise our Customer's tax and fee burden.

With apologies to David Letterman, attached to my testimony is a "Top 10" list explaining the reasons why a PFC increase is not needed. I respectfully ask you to review that list.

I would like to flag a few points. First, our Customers are over-taxed. Southwest's average airfare has decreased by 8 percent over the past two years. However, our Customers' tax burden continues to grow relative to the ticket price.

Second, airline consumers are very sensitive to price. Any increase in the PFC means a fare increase for our Customers. This distinguishes a PFC from a bag-fee, for instance. Thanks to a 2012 regulation by the U.S. DOT, all government-imposed fees—including the PFC—must be included in the advertised price of an airline ticket.

Third, a PFC increase will hurt smaller markets disproportionately. At Southwest, we fly exclusively Boeing 737s. To be successful, at a minimum, we need to fill a 737 with paying Customers a few times a day at any airport we serve. This can be challenging in smaller markets. So, for example, say St. Louis doubles its PFC. Then that's a fare increase in Wichita, Kansas, or in Panama City, Florida, or in Omaha, Nebraska—all cities with nonstop flights to St. Louis. We do not want to raise ticket prices, especially in those smaller markets where large-plane service is harder to sustain.

Moreover, if those Customers aren't going to St. Louis, but are simply connecting due to the greater number of flights and destinations we are able to offer in St. Louis, then the tax increase doubles for those passengers, as they must pay PFC's on up to 4 legs of their travel itinerary.

Finally, commercial airports have many sources of revenues. That includes existing PFC revenues, which have grown as passenger levels have grown over the past several years. Overall, airport revenues have increased each and every year since 2010—and well above the rate of inflation.

Beyond PFCs and AIP grants, revenue sources at airports include: airline-paid landing fees and terminal rents; passenger-paid parking revenues; rental car revenues; advertising revenues; limo-taxi-ride-share revenues; and concessions revenues.

One airport has a new gym, where Customers can pay a fee to exercise. Another airport this week has announced a new in-terminal hotel. All these revenue sources rely on one thing—passengers. That's why we must not raise airfares through a PFC increase, which will discourage air travel and curb the growth of these other revenue streams.

From an airline perspective, and I believe from a common sense perspective, we are faced with a dilemma. One truth pervades our American system of airports, that is, the user pays. That user is the Customer. Whether it is through the fare they purchase, the ancillary services they choose, or the taxes and fees assessed by our governmental entities, the passenger pays it all.

We have two ways to grow our Customer based resources. We can grow the number of Customers using our systems. Or, we can increase the fee burden upon them. It requires a very optimistic person to think we can both grow Customers and saddle them with additional costs. I'm not of that camp, nor is Southwest Airlines. We want to spend our energies focusing on the tide that floats all boats, and that is growing our Customer base. We do not want to increase fees, thereby killing or maiming the "golden goose".

Allow me to address the role of political decisions when it comes to airport investments. In many cases, politics has hindered progress. For instance, local opposition in Kansas City—which desperately needs a new terminal for connecting traffic—has prevented the construction of a new terminal building, which we are willing to pay for. And, several cities have diverted airport revenues for decades, including St. Louis, which every year siphons off millions-of-dollars in airport funds to support non-aviation programs off-airport. Both examples show that the money is there for increased airport spending.

In conclusion, we have a wonderful bag of tools to apply to the airport infrastructure challenge in this country. The most important tool, however, is a willing and strong hand to hold and make use of the tool. In partnership with great airport operators like my friend Rhonda, we will succeed.

Thank you for inviting me to testify today. I am happy to answer any questions you might have.

ATTACHMENT

Here are the Top 10 Reasons Why Southwest Airlines Opposes An Increase in the $4.50 Passenger Facility Charge (PFC)

1. **Our Customers are over-taxed.** At Southwest, our average one-way fare is $144.75 (4Q 2016). Roughly 15-25% of the ticket price consists of as many as 11 government-imposed taxes and fees, including the PFC. Average airfares have fallen significantly over the past two years, while our Customers' tax and fee burden has increased.

2. **Any increase in the PFC will increase our fares.** Unlike a bag fee – Bags Fly Free at Southwest – a government-imposed fee (like the PFC) is not optional and must be incorporated into the advertised ticket price per DOT regulations. Any increase in the ticket price has a negative impact on consumer demand, which leads to more travelers choosing their automobiles over our Boeing 737s.

3. **A PFC increase would disproportionately harm smaller communities.** Customers from small markets tend to connect through large airports and are forced to pay the PFC four times (once at the originating airport, again at the connecting airport, and the same on the return home).

4. **Commercial airports have numerous funding sources.** Airport revenues are derived from: a) rent and landing fees paid by airline tenants (often the largest source of revenue), b) existing PFC collections, c) government grants, and d) monies collected from parking, concessions, rental car fees, taxi/limo fees, advertising fees, etc. Cumulative airport revenues have grown every year since 2010 – and well above the rate of inflation.

5. **Commercial Airports have $12.7 BILLION of cash on hand.** Airports' unrestricted cash and investments on hand have grown substantially since 2010 – from $8.5 billion in 2010 to $12.7 billion in 2015.

6. **PFC revenues are the highest ever at over $3 billion annually.** Unlike gas tax revenues, PFC revenues have increased nationwide since 2008 and will continue to grow as passenger levels increase. See chart below.

7. **Over 90% of PFC revenues are collected at the 30 largest airports.** PFCs disproportionately benefit the largest commercial airports due to their high passenger traffic. These airports are government-owned, have investment-grade bond ratings, and can leverage their bonding authority at preferred rates to fund necessary capital projects.

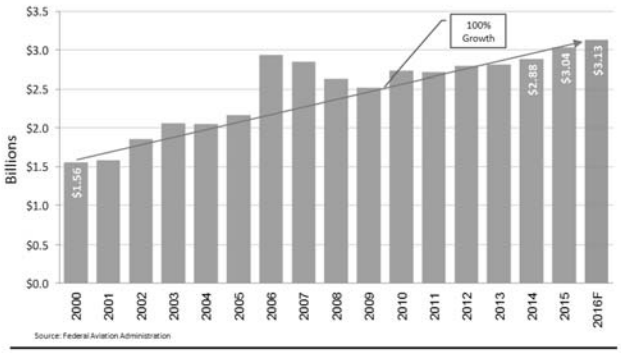
8. **Airports and airlines continue to invest in facilities.** Since 2008, over $100 billion in capital projects have been completed, underway, or approved at the 30 largest airports alone. Recently, Southwest has financed large-scale capital programs at Los Angeles (LAX), Dallas (DAL), Fort Lauderdale (FLL), Baltimore-Washington (BWI), and Houston-Hobby (HOU), to name a few.

9. **Airlines and airline passengers have no control (no "seat at the table") over how PFC revenues are spent.** So long as federal eligibility requirements are met, airports can spend PFCs – monies collected from our Customers – any way they want. There needs to be a balance between financial prudency and capital "wish lists." Such checks and balances lead to cost-effective capital planning.

10. **Uncapped and uncheck PFC spending would lead to additional costs.** PFC revenues can only be used for construction projects. Greater PFC funds open the door for new projects beyond actual needs. Once built, the airport's tenants will pay for the operating and maintenance (O&M) costs of these facilities, forever.

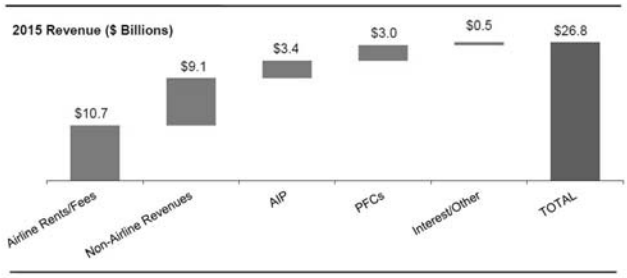
PFC revenues are expected to reach a record high in 2016

Total PFC collections have doubled since 2000, by contrast, CPI only grew 39%



Source: Federal Aviation Administration

U.S. Airports Collected Nearly $27.0 Billion in Revenues in 2015 – a Record High



- AIP is allocated based on rules and regulations established by FAA and Congress
- PFCs are allocated to each airport on a basis proportional to passenger traffic

Source: FAA Operating and Financial Summary (Form 127)

Senator BLUNT. I thank both of you.

Mr. Montgomery, you mentioned in your prepared testimony that an increase in Passenger Facility Charges would likely hurt smaller airports. It is hard enough, you said, to fill a Boeing 737 without increasing any of the costs.

Do you want to elaborate on that a little bit?

Mr. MONTGOMERY. Yes, Mr. Chairman. Thank you. I think that there are several issues at play.

One is that, in our smaller cities, we see a larger share of customers who are not necessarily business customers but that are going on their vacations, a family of four, that type of thing. Of course, many of these small market customers go to places like say from Omaha, Nebraska, to St. Louis, but they are actually going to Panama City, Florida. And the PFC applies to the four legs that they fly. Therefore, any increase is doubled to that family of four.

And just by example, a $2 increase in a PFC means an $8 increase for the family just in the one leg. And by the time they finish their trip, that is like a $32 fare increase. It hurts them disproportionately because they are connecting.

Second of all, I would say that the airlines have spent years developing finely tuned revenue management systems, and those revenue management systems are geared to try to attract the most customers for the best price. And as we take a large portion of the money that they have to pay to travel and put it in an uncontrollable environment such as taxes, that diminishes our ability to actually attract more.

That is why I say it risks those customers and why we think it is a very poor idea.

Senator BLUNT. Ms. Hamm-Niebruegge, I think you described St. Louis as a medium-sized airport. How do you feel about that, as it would impact passengers who are going to more than one airport in a trip, or what the impact would be on smaller airports versus the large hub airports?

Ms. HAMM-NIEBRUEGGE. Thank you, Mr. Chairman.

I mean, we take very seriously the cost, and we are very cost-conscious of what it is costing the airlines and our customers to fly through St. Louis. So this is the world of free-market competition.

I mean, I think for us, when we are attracting the connecting passengers, and we have been doing so especially with the help of Southwest in recent years, that is a growing need for St. Louis. So we are very sensitive to that price.

So I think when we look at it, we would make sure that we are only raising the PFC enough to be able to meet the demands that we have and not impact those families. So we would also watch other airports and what their PFC rates are doing because we do not want to be noncompetitive. I mean, we have gone from a $17 cost for per enplaned passenger to $11.75 this past year, and we are very proud of that.

So for us to raise that, it would be a concern. So we would continue to make sure that we are very cost competitive and not discouraging that connecting family, especially from the smaller markets that are coming through our airport.

Senator BLUNT. Mr. Montgomery, I think you suggested more money from the Airport Improvement Fund would be a better way

to meet these needs. I am not sure that taxpayer advocacy groups would agree with that, but why do you think that is a better way than having the passengers who are using the facility pay the cost of improvements?

Mr. MONTGOMERY. Mr. Chairman, if you will, I will go back to my analogy of tools in the toolbox. I think that it is an important tool that can be sharpened and can be used better. We do not necessarily need to increase the taxes going into the airport and airways improvement fund, but we do have a $6 billion surplus in that fund, and those monies could be harvested for many, many airports.

Increasing the AIP, I would never represent that that is the whole solution. That is not the whole solution. But I think it is a very important part of the solution.

Senator BLUNT. Probably for this to work, we need to stay pretty close to on time, since because we have two panels. I will go to Senator Cantwell now.

Senator CANTWELL. Thank you, Mr. Chairman.

This is such an interesting discussion, and I think we have been having at for a long time. And so I am trying to figure out how, when I look at my state anyway, and I look at the relationship between economic development and airports, I just want to continue to see us make this investment.

Every airport in my state is growing, and every investment we have made has paid dividends, so I want to figure out how we get here.

I heard this story once, I do not know if it is true, Mr. Montgomery, but I heard that your legendary former CEO, Mr. Kelleher, once had a dispute with another airline over the name of a frequent flyer program. They had both had branded it the same way. But instead of disputing with lawyers, they decided—Mr. Kelleher suggested that they arm-wrestle instead.

So I do not know if we are at the arm-wrestling point here between the PFC and the AIP, but I just feel that we have to get a resolution to this issue because we need this investment. We need to get to the point where we can agree on the right balance.

So do either of you have an idea about where you might compromise on this issue to get us to that right balance?

Mr. MONTGOMERY. Well, I will go first.

Ms. HAMM-NIEBRUEGGE. Sure.

Mr. MONTGOMERY. I think that one of the most important things that we do in the airport affairs and airport world is collaborate. We are always trying to collaborate, and that is the way that we have been able to beat some of the challenges in St. Louis. The airport invited us in and talked to us as airlines to ask what do you need, how do you see us addressing this? We would make suggestions. Some of those worked. Some of those did not work.

I do not want to suggest that I arm-wrestled Rhonda. I have way too much——

Senator CANTWELL. She looks pretty tough.

[Laughter.]

Mr. MONTGOMERY. I think the end of the story on Herb's arm-wrestling is you know that he got beat.

[Laughter.]

Senator CANTWELL. I did not know.

Mr. MONTGOMERY. Absolutely. I will tell you the whole story at another time. It is a fun story.

But I think that that collaboration is the most important thing that we do. I do not think either of us have all the answers.

I would also say that as far as when we look at say ACI's recent report that shows the $100 billion worth of challenges that are coming up in the next few years, when I submit my budget to Gary Kelly for capital improvements that I want to do, it is a kitchen sink kind of budget, and he always kind of looks over his glasses at me and says, really? And the actual budget that I submit is significantly lower than that. And when I have an approved budget, when it comes to actually performing those projects, only a portion of that set actually get done for a wide variety of reasons.

I think that is the same challenge we have here. Airports, yes, they have needs, they have wants. There is a large set. But to think that that full set from the surveys is a reality is a mistake. The actual number is much less than that, and we are able to collaborate and work to do the most important projects.

And the last thing that I would say is that the ACI report also shows 50 percent of the need is unfunded, as it should be. In the last 10 years—I referenced the $100 million that we have done or have agreed to do, and 55 percent of that is financed, which is that big, unknown category that is presented on the ACI report. So I would represent that the tools that we have in the toolbox should be allowed to work, and that they are sufficient.

Ms. HAMM-NIEBRUEGGE. I would agree with Bob when we talk about collaboration, because I do think the airports have to work extremely closely with the airlines. We are not enemies. We are partners. And I think, in the past sometimes, we have viewed each other as enemies. So I think that collaboration has to be there.

The other piece I would tell you is it is an education process. I am always amazed at very, very intelligent men and women in the business community who have no idea really how airports operate or how they are run. And so I think it is incumbent on us as airport directors to help educate our communities so that they understand some of the burdens that we are under, and they understand what is a PFC. It is not a tax. It is a user fee.

And when we look at that and we look at some of the things—my community is asking me all the time, Rhonda, why can't we have this? Rhonda, why can't we have this? And you have to balance the budget and the monies that are there.

So I think it is an education process, that we have to continue to educate our local leaders in our region on how airports operate and what partnerships mean with the airlines, and what a PFC really is.

Senator CANTWELL. Well, I am not sure the arm-wrestling match is off. We might still have to bring it back. But anyway, thank you.

Senator BLUNT. Senator Inhofe.

STATEMENT OF HON. JIM INHOFE, U.S. SENATOR FROM OKLAHOMA

Senator INHOFE. Thank you, Mr. Chairman.

A lot of the Members here are also on Armed Services, and we are meeting simultaneously, so I missed opening statements and maybe questions that have already been asked. But I am really interested in this.

I am going back many years ago to my old Mayor days. That was a great concern we had. We were concerned about the airlines. I remember, I was Mayor when you guys first came in, and I was out there recruiting you.

Let me ask you, when you refer to a medium-sized airport, what Lambert is, I should know but I do not——

Ms. HAMM-NIEBRUEGGE. A medium-size is 5 million to 15 million.

Senator INHOFE. OK.

Ms. HAMM-NIEBRUEGGE. And this past year, Lambert had just shy of 14 million.

Senator INHOFE. OK, OK. Well, and the fight has been there for a long time. I recall when PFCs first came on, and, of course, they started out very, very low. I think the last change was made a couple years ago. It went from $3 to $4.50. Is that correct?

Ms. HAMM-NIEBRUEGGE. Correct.

Senator INHOFE. OK. Now, if you look at the AIPs, and I can remember when the AIPs, it was partially my effort to try to get them to be more of a concern for regional—instead of just the regional, large regional airports, getting into some of the smaller fields like mine in Tulsa, Oklahoma.

So you have the AIP. You have the PFC. You have other sources like the other revenues generated from the airports. But I have not heard anyone say anything, at least since I came in, about municipal bonds.

Where do they fit? You were doing a nice comparison, Mr. Montgomery, when I first came in as to these different sources, the tools in your toolbox. Where are municipal bonds? How do they fit in?

Mr. MONTGOMERY. Senator, I think that the municipal bonds are extremely important. That is where we are in full agreement with Rhonda and with all of the airports.

I said that 55 percent are financed by—the local term is GARBs, the General Airport Revenue Bond, which is a form of municipal bond. So it is a tax-free instrument, and it allows us to borrow money at low rates.

And we think because that is the biggest tool in the investment toolbox, it is absolutely essential that we maintain that tool and sharpen it, if we possibly can.

Senator INHOFE. Now, have you been using that tool?

Ms. HAMM-NIEBRUEGGE. We have, and we agree that that tool absolutely has to stay.

But in an airport like St. Louis Lambert, we built a billion-dollar runway several years ago, and so right now, we still have a significant amount of debt that we are paying down. So the opportunity for us to go out and use municipal—we have not gone out for bond sales since 2009, and that was a very small one, to do a terminal renovation. Again, AIP doesn't cover terminal renovations so we had to do bonds for that.

But we have not had the ability to really go out for bond sales at this point because of a heavy burden of debt. So one of the

things that I think is important is that the PFCs could also allow us to pay down that debt more aggressively.

Senator INHOFE. You could use those funds.

Ms. HAMM-NIEBRUEGGE. Absolutely. We could use those funds to pay down our debt more aggressively. That makes us more competitive from a cost perspective, hopefully attracting more airlines to grow in St. Louis.

So that is another tool that the PFC cap would give us by allowing us to pay that debt more——

Senator INHOFE. That might, as Mr. Montgomery said in his testimony, have the effect of reducing the overall ridership that generates the revenue necessary not only for your improvements but to pay off the debt.

Ms. HAMM-NIEBRUEGGE. You know, that is probably one of the points we disagree on, because I think, again, you have to look at the free market competition. We would not raise our PFC so much that it put us out of competition with other airports. We would make sure that we watched that very closely and that we are keeping that at a rate that allows customers to still fly and connect through St. Louis as well as the local customer.

Senator INHOFE. The $4.5, that is a cap?

Ms. HAMM-NIEBRUEGGE. That is correct.

Mr. MONTGOMERY. Correct.

Senator INHOFE. Now it is proposed somewhere—and I am new on this committee, so I have not been into a lot of these issues.

But there is a proposal to increase, I think to $8. Is that correct?

Ms. HAMM-NIEBRUEGGE. There have been a number of proposals out there to have an un-cap to go to $7.50, to go to $8, so it has been a little bit over——

Senator INHOFE. Yes, I do not think that was actually in our reauthorization, but it was a consideration at that time.

Now would you encourage, not that you have to go to the cap, but increase in the cap so that the capacity is there, should you call upon it?

Ms. HAMM-NIEBRUEGGE. I am sorry? I did not hear——

Senator INHOFE. Would you be for increasing the cap?

Ms. HAMM-NIEBRUEGGE. I would be for increasing the cap, yes.

Senator INHOFE. And you would not be for increasing the cap?

Mr. MONTGOMERY. I would not.

And when I hear things like a $4.50 cap, again, that applies to just one leg. The passenger pays it on four, so each passenger, a passenger who connects somewhere and goes back, would be subject to a $36 PFC, and to increase it makes that even much more.

And that is why I am concerned that the large tax burden starts to shape people's purchasing decisions because they are looking at the entire cost of travel and not the cost at one airport, such as St. Louis.

Senator INHOFE. I understand. My time has expired, but I think that makes a pretty good argument there.

When you increase, if you double this, you are more than doubling it because it is per leg and it could be a very, very prohibitive thing that might have the adverse effect that you do not want to happen in terms of your ridership.

Ms. HAMM-NIEBRUEGGE. Right. The only add that I would add to that, and again, Southwest does not do this, but all the other carriers are charging the bag fee, the preferred seat fee. They are charging change fees. So they are charging significant dollars, far more than a PFC.

So maybe if the airlines could look at that piece of it—again, Southwest does not follow that model, but all the other carriers do, and that is a far more burden on the passenger than the PFC.

Senator INHOFE. Thank you very much.

Senator BLUNT. Senator Gardner.

STATEMENT OF HON. CORY GARDNER, U.S. SENATOR FROM COLORADO

Senator GARDNER. Thank you, Mr. Chairman.

And thank you to the two witnesses today. This argument is eerily reminiscent of some conversations we are going to be having on the Hill here the next couple months. Should we fund this? Should we not fund this? Should we cut this tax? Should we not cut this tax? So we will bring you back for that. It sounds good.

Mr. Chairman, thank you very much for holding this hearing today. This is very important for Colorado. I have the privilege of representing the sixth busiest airport in the country, one of the 20 busiest airports in the entire world.

I am very proud of the work that we do. We are considered one of the busiest destinations or locations for United Airlines, Frontier Airlines, Southwest Airlines, so I am excited about the opportunities and options that flyers in and out of Denver, Colorado, and Denver National Airport have.

It is an important hearing as we talk about infrastructure, because we know what Denver's new airport did 20 years ago, and we know what the growth around that airport has been. And you can go out right now and see. I think there were 15 cranes in the skyline just right around the Denver Airport the other day, so it is incredible—with red lights and far enough away from the airport.

But it is great to see the work that is taking place there.

Mr. Montgomery, in your testimony, you talked about and answered some of the questions. You talked about raising the Passenger Facility Charge being an unnecessary measure and that airports should negotiate directly with airlines and use existing tools to meet their infrastructure needs. But yet we hear from airports across Colorado—Durango, Grand Junction, Colorado Springs, and Denver have all said that raising the PFC is critical to meeting their long-term infrastructure needs.

At the same time, Ms. Hamm-Niebruegge—is that how you say the last name? Good.

In your testimony, you talk about $100 billion in infrastructure needs at airports, and we are facing a significant shortfall to meet those needs. Yet Mr. Montgomery's testimony, he says that commercial airports have $12.7 billion cash on hand to meet those infrastructure needs, and existing PFC revenues are at historical highs right now.

So you have airports telling the Committee that we have a shortfall of billions of dollars to meet infrastructure needs. We have air-

lines telling the Committee that there are billions of dollars in surplus to meet infrastructure needs.

So can you help me understand how both of these can be true at the same time?

Ms. HAMM-NIEBRUEGGE. Well, I think—I am sorry.

Mr. MONTGOMERY. Go ahead.

Ms. HAMM-NIEBRUEGGE. I think one of the challenges is, on the PFCs in the case of St. Louis, and there are many, many airports out there, our PFCs are currently pledged through 2032. So our ability to use the existing PFCs, they are already pledged.

And many airports that have done large projects like St. Louis have the same issue. We have a very small amount of the PFCs currently that are eligible for any programs because of the pledge of building out the runway.

We are, as we see the growth of connecting traffic, which is encouraging to us and certainly why we need to be cost competitive, we hopefully will see some of that PFC come to us to be able to fund other projects. But currently, there are a lot of airports whose PFCs are pledged out.

Senator GARDNER. Mr. Montgomery?

Mr. MONTGOMERY. Yes, Senator, there is an old Texas saying that says "never ask a barber if you need a haircut." And that comes to mind when I think about the PFC issue because the airports are both saying we need it and they are receiving the money.

And I can spend much more than you could ever give me. That is a unique talent that I have. I think that there is another old saying in the airport business: Once you have seen one airport, you have seen one airport. And so it is hard to draw conclusions when you look at the needs of Denver International Airport versus Grand Junction.

I do not think that the Passenger Facility Charge, being only 20 percent of the total tools that we use to spend at airports, is not going to make a significant enough difference for them. That AIP funding and increasing that I think can make a much bigger difference for those very small airports and for the GA airports that are all around the country.

Senator GARDNER. Thank you. And, Mr. Montgomery, I commend you on your barber, so thank you very much.

[Laughter.]

Senator GARDNER. Mr. Chairman, thank you.

Senator BLUNT. That is right, Bob. Your barber has done an excellent job.

Mr. MONTGOMERY. They are still telling me I need a haircut.

Senator BLUNT. Mr. Peters.

STATEMENT OF HON. GARY PETERS,
U.S. SENATOR FROM MICHIGAN

Senator PETERS. Thank you, Mr. Chairman, and thank you to our panelists for being here today and for your testimony.

Ms. Hamm-Niebruegge, a question for you. The FAA extension included a number of provisions to respond to insider threats and improve the screening of airport workers, as I know you are well aware. The legislation also sought to address vulnerabilities in

sterile and nonsterile areas in airports by doubling the number of VIPR teams that are deployed at airports across the country.

And with the recent attacks in Fort Lauderdale and in Brussels, it is clear that we all need to do more to protect airports and the traveling public from these types of attacks. And I know that for airports in my state, if money were no object, and that clearly is not the case with airports in my state, and I am sure you are well aware that, that they would already be investing in various public safety initiatives such as ballistic protective podiums, permanent force protection barriers along the curbside drop-off to protect from vehicle-borne attacks like the ones we saw tragically in London just yesterday.

So I am curious, what are your thoughts on allowing airports to utilize AIP funds and/or PFC funds on public safety initiatives such as this?

Ms. HAMM-NIEBRUEGGE. I mean, I think we should be able to. I think one of the challenges we see is the restrictiveness today of AIP funds. The majority of it is used for runway only so, obviously, you cannot use them for the terminal. So I think the ability to have more flexibility in how we use the funds is critically important.

And I think all of us are very mindful today of the need to be looking at security and always enhancing it. You know, we have the benefit of a lot of canine dogs in St. Louis that are our own that are roving areas. But we know it is just a small portion of the total need that is out there. So certainly, the flexibility of being able to use both AIP and PFC dollars for projects other than runway projects is important.

Senator PETERS. Would there be other innovative ways we could finance that in addition to those two? Obviously, I think those two are an opportunity, but is there anything else that you are thinking about or airports are thinking about to fund these projects?

Ms. HAMM-NIEBRUEGGE. You know, I think that is one thing that, again, where Mr. Montgomery mentioned the fact that we have to work in collaboration, and I think you have to analyze the risk. You have to look at your airports, how they are set up today, where the most vulnerability is. And I think you can partner with the airlines to say this is an enhancement that we need, and are we willing to fund it through the rates and charges of the airport?

Again, you always want to make your rates and charges as competitive as possible so that you have the opportunity to attract. But I do think it is one of those projects that we can work with our partners at the airlines to see if it is something that can be rate-based.

Senator PETERS. Let me ask you, Mr. Montgomery, from your perspective, how are airports doing when it comes to investing in state-of-the-art security equipment? And more specifically with Southwest Airlines, what are you doing to work with TSA and airports to enhance airport security? Any specific examples of things that you are doing around the country?

Mr. MONTGOMERY. Senator, thank you for asking the question. We are spending a huge amount of time collaborating with airports on this particular subject. One of the huge challenges that we see is the dilemma—are there assets that need to be built that protect

us, or are there processes that we use that protect us? And which of those yields the better result?

And I am not sure that we have concluded anything. I think the answer is probably somewhere in the middle. There are some things we can actually spend money on that help protect us. But are there other electronic initiatives, surveillance initiatives, identification of passengers, that do a better job of it?

We have a large department that does nothing but this, and I would love to invite them to come visit with you and give you the full scope of exactly what they are doing, because I only see it from the airport side and not from that real security side. So I do not want to dodge your question——

Senator PETERS. I understand.

Mr. MONTGOMERY. I would just say that there are two pieces and several other pieces to this. Which one is more effective, we are willing to work on all of them.

Senator PETERS. Well, I would welcome your folks to come in to have a broader discussion, actually both of you, to understand how we finance some of these security improvements, which are absolutely critical and will be in greater need as time goes on, so thank you for your answers.

Mr. MONTGOMERY. Thank you.

Ms. HAMM-NIEBRUEGGE. Thank you.

Senator BLUNT. Senator Sullivan.

STATEMENT OF HON. DAN SULLIVAN,
U.S. SENATOR FROM ALASKA

Senator SULLIVAN. Thank you, Mr. Chairman.

And I appreciate the witnesses' testimony on a very important topic. The President has talked about the major infrastructure package that our country needs. I think a number of us agree with him. I think that in the realm of airport infrastructure, that is certainly an area that we need that kind of investment for the country.

And yet, I think that if you look at any major infrastructure project or initiative that we would undertake as a Nation, as a Congress, it would not be very efficient if we do not also look at modernizing our Federal permitting system in order to deploy resources, to build infrastructure.

And you probably heard a lot of the nightmare scenarios about how now it takes about 6 years on average to permit a bridge in America. In this great Nation of ours, you cannot even permit a bridge let alone build one.

We had a hearing last year on airport infrastructure and the head of the SeaTac Airport—and I know my colleague Senator Cantwell probably remembers this—he was talking about the runway expansion that they did there. And I asked him how long it took for them to build it? I know it was a bit of a complicated project. He said, "I think the answer was 4 years." And then I asked him how long did it take to get the Federal permits and the pre-build regulatory permission before they built that runway? He answered 15 years. And then he went on to say, Senator Sullivan, I think the time it took to build it and permit it, the Egyptians built the pyramids in a shorter amount of time.

So what, from your perspective, do we need to do, and a lot of it is Federal, no doubt about it, some of it is local, but a lot of it is Federal, that if we are going to undertake a significant infrastructure package for the country, including airport infrastructure, what would we need to do, and if you do not have the answers, I would love it if you could submit them for the record, to streamline and modernize the Federal permitting system that will enable airports to actually build new runways and build new terminals and expand in a way that does not take 15 years just to get the permit? What should we be doing in the Congress on that very, very important issue?

Ms. HAMM-NIEBRUEGGE. Well, I think we need to lessen the oversight at the FAA. You know, airports also have the benefit in our case, and there are a lot of other ones, that we own lot of land. And even on simple things like trying to release 2 acres of land to be leased for nonaeronautical—I mean, we are all looking at ways to raise nonaeronautical revenues. Can we do land leases with distributions or things that make sense that might not have necessarily an aeronautical value to it but rather than sit there empty? The process for us to even get approval to use 2 acres of land for a nonaeronautical revenue stream is ridiculous.

So lessening that oversight, giving some credit to the airports and allowing them to make decisions that can bring alternative revenues into your airport to help with some of these funding and cost initiatives would be a critical first start.

Senator SULLIVAN. OK.

Mr. MONTGOMERY. I really appreciate you bringing up the issue, Senator, because in Southwest's experience, we have recently gone into airport construction ourselves. We built Dallas Love Field. We built the international concourse at Houston Hobby Airport. We are renovating all of Terminal 1 at Los Angeles International Airport. And we have a major expansion with a concourse and new security area, a concourse transfer bridge, going on in Fort Lauderdale. Several billion dollars' worth of spending on those projects.

Our experience is that when we bring private sector initiatives to the construction project, we can build significantly less than the public sector can, not because the public sector is stupid but because they are saddled with processes and approvals and things that we might not be saddled with. So we can dramatically drop the cost of addressing infrastructure needs.

And I think that creating structures where we can more nimbly do that helps us address the needs, and then getting better Federal approvals, particularly through the environmental process, I think we would probably agree that is one of the most complex processes. That would help us shrink the time to address things and reduce the cost of——

Senator SULLIVAN. Well, I am going to be introducing a bill here in the next couple weeks. I certainly want to try to make it a very strong bipartisan bill, the Rebuild America Now Act, which is all going to be about modernizing and streamlining our Federal permitting system to actually build things, not delay to build things, build things.

And we would welcome your comments, if you want to submit them for the record, of additional ideas and thoughts and legisla-

tive changes that you need, that you would want on airport infrastructure. We would welcome the chance to try to include that as part of our bill.

So thank you very much.

Ms. HAMM-NIEBRUEGGE. Thank you.

Senator SULLIVAN. Thank you, Mr. Chairman.

Senator BLUNT. Senator Klobuchar.

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much, Mr. Chairman, and thank you to Ranking Member Cantwell, as well.

My state, Minnesota, has strong connections to aviation, childhood home of Charles Lindbergh, also home to the 16th busiest airfield in the U.S. Cirrus Design, which makes jets, is also up in Duluth, a major employer up there.

I am not going to be able to stay for the second panel because we have something called the Supreme Court hearing going on—by the way, our two witnesses, I am going to use the same approach that we all use there: Twenty years ago, did you—no, I am not going to.

[Laughter.]

Senator KLOBUCHAR. But I did want to mention, because I will miss the second panel, that Senator Murkowski and I passed the Small Airplane Revitalization Act, which sped up some of the approvals, directed the FAA to speed up some of the approvals on certification to improve safety for small jet manufacturers. And we have really been held up a bit in rules, and I will submit questions on the record on some of the questions for the second panel to be able to build upon the new Part 23 regulations we have.

I did want to ask—I guess I will start with you, Ms. Hamm-Niebruegge? That is how I see it. Right? OK.

On the infrastructure package, in your testimony, you highlight the consequences of underinvesting. There are a lot of bills out there. Senate Democrats have a bill for $65 billion to modernize America's ports, airports, and waterways. I am a big fan of this.

What kind of improvements do you think would be most helpful to the Nation's airports?

Ms. HAMM-NIEBRUEGGE. Well, I think, you know, you have both the runway system and, of course, you have the terminal experience. I think anybody will tell you—and I love our terminal. I mean, it was designed by a famous architect, and I love it. But at the end of the day, it was a terminal built in 1956, and so we have the need to look forward in the future about the designs of our terminals. And if you go anywhere across the world and you look at the things that they are building from a customer experience—and we all want to try to encourage people to travel. We face a lot of airports on the terminal side that just are not up to speed.

So I think that is one piece because there is not a lot of funding, in most cases, on the terminal side.

Senator KLOBUCHAR. As you know, the President's proposed budget eliminates EAS. In 2016, five Minnesota airports were eligible for EAS. It is really important, especially in northern Minnesota.

How would St. Louis Lambert International be affected if smaller community airports stopped sending connecting flights to your airport?

Ms. HAMM-NIEBRUEGGE. It would have a dramatic impact, a negative impact, on us. We currently are served with 10 EAS markets. They are extremely critical. Those markets bring in about an additional 50,000 passengers every month to our terminal, and those are people that would not come to St. Louis had they not had access through the EAS market, so they are critically important to us.

Senator KLOBUCHAR. Right. Very good.

Congress has not passed a multiyear FAA reauthorization since 2012. Last year, I was glad we avoided a repeat of 2012 where we had 23 short-term extensions.

How can we forget that? But who is counting?

How do short-term FAA extensions make it more difficult for airports to plan their investments?

Ms. HAMM-NIEBRUEGGE. Well, it is very difficult. On short-term extensions, you know, one, you can barely get the design of anything done without knowing that, in the long-term, we are going to have the money there to build it. So you are reluctant to even do design work and go spend that 20 percent or 30 percent on design work if you do not have a commitment that the long-term revenue is going to be there to build it. So it is critically important.

It is hard to get anything done on short-term reauthorizations. You know, it cramps our ability to even go out and design the projects.

Senator KLOBUCHAR. Right. Very good.

Mr. Montgomery, you mentioned in your testimony that Southwest has been successful at small, medium, and large airports. In Minnesota and the upper Midwest, we have a strong network of small airports that give rural communities convenient access to major metro areas. How does Southwest work with small airports to grow and expand service?

By the way, we are home of Sun Country, as you know. But you actually had a really good competitive service going for a while to Minnesota. The rates went down. I had so many choices. It is fine now. Sun Country is doing some of it.

Mr. MONTGOMERY. Well, on the wall in my office, I have a picture of two buffaloes going at it that says bring on the competition, and we have been a big believer in competition.

As far as serving small communities go, we have a network planning office. We have a business development office that spends an inordinate amount of time meeting with those airports to find out, what do the customers want?

Our challenge is that we only fly 737 aircraft, so with some of those smaller operators that feed places like St. Louis, a lot of those folks come straight over to Southwest Airlines, and we enjoy that very much. But because we do not codeshare, we are not able to really do a lot of coordination with them. But we see them as very important in dealing with the whole aviation challenge.

Senator KLOBUCHAR. OK. Thank you very much, both of you.

Senator BLUNT. Senator Heller.

STATEMENT OF HON. DEAN HELLER,
U.S. SENATOR FROM NEVADA

Senator HELLER. Mr. Chairman, thank you. Thanks for hosting this, and also the Ranking Member, for putting this together.

I clearly feel it is probably important to you, knowing that—is it Hamm-Niebruegge? Is that correct?

Ms. HAMM-NIEBRUEGGE. Yes.

Senator HELLER. Very good—is here as a witness today. I want to thank both of our witnesses for being here and taking time out of your busy schedule. I am very familiar with how difficult it can be back in the states when you are in charge and involved with one of your local airports. So I appreciate what you do, what both of you do.

I want to start with you, Ms. Hamm-Niebruegge. I have a good relationship with airports in my state. We have three commercial airline facilities, McCarran, Reno-Tahoe, and the Elko airport. It is not just about—as you can imagine, in the state of Nevada, bringing 55 million people in every year through these facilities, how important it is not only to get them to the airports but obviously to get them to areas near the airport, you know, for example, the Strip, downtown, UNLV. You go through the list of it. Very, very important.

And planning—planning has become very important. I know that the Chairman serves with me, I am the Co-chair, is Co-chair with me on the Tourism Caucus. And I know this is important to St. Louis as well or, obviously, you would not be here. But how could we better focus as a Congress on Federal planning, on tourism infrastructure you just mentioned with the last person, with our airports and our convention centers?

Ms. HAMM-NIEBRUEGGE. Well, I just flew out of Reno Sunday night as we had a weeklong vacation in Tahoe. Thank you. It was wonderful. And toured the strip in Reno as well.

But, you know, I think one of the things that we have to focus on very, very heavily is the tourism industry and what it brings, the convention industry, what it brings. We have a large convention center in St. Louis as well. We are heavily reliant on that.

So the business traffic, and even in the downturn in 2008 when we saw businesses pull back and stop flying, that was very hard for our industry. So I think making sure that we focus on all of those sectors, the business traffic, the leisure traffic, the convention traffic, and supporting industry standards and supporting industry I guess promotions or incentives, to be able to bring those into your cities are critical.

So you have to work very closely with the business community, and it goes back a little bit to the education side of making sure people understand what the travel, tourism, convention businesses bring to your city. The economic impact when you have a convention in your city is unbelievable.

And so I think it is just making sure that we educate people on that.

Senator HELLER. You can imagine a city like Las Vegas, I believe it is some $60 billion or 13 percent of the GDP for the state just in convention business.

If I can turn just for a minute, with your experience, do you know, in the competitive transportation grant program, do they take into account wear and tear from visitors that come and go out of a community like this?

Ms. HAMM-NIEBRUEGGE. Are you asking me?

Senator HELLER. I am asking you, yes.

Ms. HAMM-NIEBRUEGGE. Taking into—effect on the airport or——

Senator HELLER. Yes.

Ms. HAMM-NIEBRUEGGE. You know, I am not sure I can answer that question. I mean, I think we certainly take a look on the wear and tear on the airport. As airport directors, you want that traffic in and out. You build it into your plan. You look at both your short-term and long-term planning of what does additional growth mean, how are we going to keep the facilities up, the cleaning, the restoration, all of those things. But I am not——

Senator HELLER. I am just curious if their competitive grant process takes that into account.

Ms. HAMM-NIEBRUEGGE. Right. I will try to get that answer for you and submit it tomorrow or the following day.

Senator HELLER. Mr. Montgomery, Southwest Airlines is the busiest commercial carrier in McCarran Airport. Congratulations.

Mr. MONTGOMERY. Yes, sir. Thank you. I have had a lot of history there.

Senator HELLER. Let me know. Let me know what I can do to help. What can I do to help you?

Mr. MONTGOMERY. Well, Senator, I think that you bring up a really important subject about mass transit. Las Vegas has one of the largest challenges on the planet in that you have so many visitors coming and leaving. You just look at the cabstands and see the way that they handle that.

One great thing that you all have done is that a lot of the economic development folks, a lot of the folks designing monorails and everything else, started at the airport and worked with me as we were developing a lot of McCarran. So they understand what that airport challenge is.

And as we come up with new ways, I think one of the Senators was talking about approvals and how we quickly get approval so that we move into construction. And I would say that that is the best way to help, if you could just kind of plow the way for us and get the process out of the way so we can act, that is best.

Senator HELLER. So if there was regulatory relief, that would be it for you.

Mr. MONTGOMERY. Yes.

Senator HELLER. It would be.

Mr. Chairman, thank you.

Senator BLUNT. Thank you, Senator Heller.

Senator Cruz.

STATEMENT OF HON. TED CRUZ,
U.S. SENATOR FROM TEXAS

Senator CRUZ. Thank you, Mr. Chairman. And I want to thank you for holding this hearing today, and thank the witnesses for their testimony.

And I want to especially thank Bob Montgomery for being here. Bob is born and raised in Lubbock and is a lifelong and proud Texan. And I want to, in particular, congratulate Bob on I understand recently achieving his 40th anniversary working at Southwest Airlines.

Mr. MONTGOMERY. They have not gotten rid of me yet.

Senator CRUZ. I hope they do not pay you in peanuts.

Mr. MONTGOMERY. The day is not over yet.

Senator CRUZ. Well, welcome to the both of you. Thank you for being here.

Ms. Hamm-Niebruegge, I want to take a minute to discuss the use of airport Passenger Facility Charges. And Mr. Montgomery's prepared written testimony states, "Allow me to address the role of political decisions when it comes to airport investments. In many cases, politics has hindered progress. For instance, local opposition in Kansas City, which desperately needs a new terminal for connecting traffic, has prevented the construction of a new terminal building, which we are willing to pay for. And several cities have diverted airport revenues for decades, including St. Louis, which every year siphons off millions of dollars in airport funds to support nonaviation programs off airport. Both are examples that show that the money is there for increased airport spending."

Do you share Mr. Montgomery's concern about diverting airport funds to nonaviation uses?

Ms. HAMM-NIEBRUEGGE. We were the first municipally owned airport in the country. In 1927, the city bought the airport and the land, and eventually, they invested a lot of money and built that terminal. And so we were one of the grandfathered markets that has about $6 million a year in gross receipts of our revenues that go into the city. As the airlines like to call it, it is the GRP, the gross receipts payment.

But for that particular purpose, I understand that because of the investment that the city made into our airport, an opportunity for them to be able to regain some of the investment that they made, so I think that is a unique example of it.

As a whole, I would agree that airport revenue should not be diverted to any other forum. I mean, it should stay within the airports.

Senator CRUZ. So I want to understand your testimony. You said it is about $6 million a year that is being spent in St. Louis on nonaviation purposes.

Ms. HAMM-NIEBRUEGGE. Well, it goes directly into the city of St. Louis, into their general revenue fund. Again, it is a complicated formula. It is a gross percentage of our nonaeronautical revenues that come in.

But the reason for that was, again, it was bought by the city in 1927. The city invested a great deal of money in building an airport originally. And so it was a way to be able to allow them to recoup some of that investment.

Senator CRUZ. Do you have any sense nationwide what the volume of funds are that are diverted to nonaviation purposes?

Ms. HAMM-NIEBRUEGGE. Not exactly. I do know that there are 12 sponsor airports that are grandfathered similar to how St. Louis is,

not all in the same way that we are. But I do believe it is a decent amount of money that is probably going into cities.

Senator CRUZ. Mr. Montgomery, would you care to respond to this issue and share your thoughts on it?

Mr. MONTGOMERY. Yes, thank you, Senator.

I think that one of the great things that has been included in all of our legislation about airports is that money on an airport needs to stay on an airport. We need to reinvest with the resources because it is so expensive to build runways and to operate our airports.

Nationwide, with the airports that are allowed to divert revenues, close to $1 billion a year is diverted. That is a significant resource that could be redirected to spending. I look at it akin to having the unspent balances in the AIP fund. And these are resources that we have to address, infrastructure that we should make use of.

Senator CRUZ. Now, Mr. Montgomery, another component to the Passenger Facility Charge that you bring up in your testimony is not just the diversion of funds, but the request by some to increase the Passenger Facility Charge.

In your judgment, what will the impact be on small-market airports, if we were to increase the Passenger Facility Charge?

Mr. MONTGOMERY. Thank you, Senator. I think that what will happen is we will have fewer customers. If we increase the cost to those customers in the small cities, their options would be fewer. There is less of a population to support 737 service that Southwest Airlines flies. So our profitability is very critical there, and we believe that an increase in cost causes customers to decide to do something else, which is going to take them out of the whole formula.

We need more customers to provide more of the customer-based resources so that we can spend them.

Senator CRUZ. Ms. Hamm-Niebruegge, do you agree with that?

Ms. HAMM-NIEBRUEGGE. Not really. I think it is a twofold question. And again, Southwest is one of the carriers that does not do this. But if the airlines were so concerned about the $4.50 PFC, then they ought to be concerned about the bag fees they are charging, and the preferred seat fees they are charging, and the changing a ticket itinerary charges that are there. Those are far more significant than the PFC. Again, not all airlines do that, but the majority do.

So that is one way to look at that argument. The other would be is that, and I said this earlier, you know, free market enterprise is great, and we want to make sure that we are competitive. And the cost per enplaned passenger is important to us because we know that that is important to the airlines.

So raising the PFC or out-costing ourselves so that we would not be competitive with other airports that are trying to connect passengers from these small communities would be in spite for us. I mean, there would be no reason for us to make sure that we are being noncompetitive in that sense.

So I think it does put a burden back on the airport to make sure that you know what the markets can handle, that you know what your competitors are doing, that you know what the customers are

willing to pay for, so that you do not lose those customers. But it does go to the free enterprise market, which I think makes competition great.

Senator BLUNT. Thank you, Senator Cruz.

Senator Hassan is going to allow us to move to the next panel.

And, Senator, if you can stay, we will give you the first round of questions for the next panel.

So thanks to both of you for being here.

Ms. HAMM-NIEBRUEGGE. You are welcome.

Mr. MONTGOMERY. Thank you.

Senator BLUNT. A great discussion. I think one of the things that comes out of that discussion, as we are transitioning panels here, is this really is a partnership, and partners do not always agree on everything, but they still have to be partners to make this work, and we are glad to see that element of your conversation today as well. So thank you for being here.

I will mention that my prepared remarks will be inserted in the record, and the opening remarks of any other members will as well.

[The information referred to follows:]

PREPARED STATEMENT OF HON. ROY BLUNT, U.S. SENATOR FROM MISSOURI

In regards to the second panel on aviation manufacturing, the Subcommittee is eager to examine additional steps we can take to enhance safety, and U.S. competitiveness.

Civil aircraft manufacturing continues to be the top net exporter in the U.S., with a $59.9 billion positive impact on the trade balance.

Moreover, the FAA's mission—first and foremost—is to ensure our Nation has the safest and most efficient aerospace system in the world.

Safety is paramount, but when FAA uses its limited resource to review and certify all products and aspects of manufacturing—even those not directly related to aviation safety—it needlessly slows down the whole process.

If everything is a priority, then nothing is a priority.

Bureaucratic inertia and inconsistent interpretation of regulations by different FAA field offices create inefficiencies that may result in the delay of newer, safer technologies and systems that can be deployed on our aircraft.

Recognizing this, Congress directed the FAA to refocus its efforts on areas that have the highest impact on safety and to rely more on technical expertise and resources of the private sector.

FAA should be applauded for the progress it's made, but we are still dealing with many of the underlying inefficiencies that result in long wait times and cost increases for approval of new designs.

The inability of the FAA certification process to approve aircraft and components in a timely manner has a direct bearing on the ability of U.S. manufacturers to deliver safer products in an increasingly global marketplace.

The purpose of this hearing is to examine ways we can further improve the FAA's certification processes, expand FAA's use of underutilized Organization Designation Authorizations, and encourage FAA to engage more on foreign validation of its certificates.

I look forward to working with our Committee Chairman, John Thune, our Ranking Member, Bill Nelson, and my Subcommittee counterpart, Maria Cantwell, on continued bipartisan success in advancing a comprehensive FAA reauthorization this year that is pro-growth, pro-jobs, and, most importantly, pro-safety.

I turn now to Ranking Member Cantwell for any remarks she would like to make.

Senator BLUNT. The second panel is on aviation manufacturing. The Subcommittee is eager to examine additional steps we can take to enhance safety, but also to enhance U.S. competitiveness. This is an important area for us to be competitive in.

Obviously, we do not want to give away anything on the safety front. But when the FAA uses its limited resources to review and

certify all products and aspects of manufacturing, we need to be sure that we are doing that in a way that does not needlessly slow down the whole process.

So we are pleased to have with us today, as Senator Cantwell has already pointed out, Ms. Peggy Gilligan, who has been the Associate Administrator for Aviation Safety at the FAA for a significant amount of time and knows this area better than anybody. But even with that said, while not testifying today, Ms. Gilligan has with her, Dorenda Baker, who is the Director of Aircraft Certification Services, who will be available for questions.

Dr. Gerald Dillingham, the Director of Civil Aviation issues at the Government Accountability Office is here, as is Greg Fedele, the President of Sabreliner Aviation.

So, Ms. Gilligan, we will start with you.

STATEMENT OF MARGARET GILLIGAN, ASSOCIATE ADMINISTRATOR, AVIATION SAFETY, FEDERAL AVIATION ADMINISTRATION; ACCOMPANIED BY DORENDA BAKER, DIRECTOR, AIRCRAFT CERTIFICATION SERVICES, FEDERAL AVIATION ADMINISTRATION

Ms. GILLIGAN. Thank you, Chairman Blunt, Senator Cantwell, and members of the Committee.

Let me thank you, Senator Cantwell, for the kind words.

I am very proud of my service to the FAA, but I want to thank this Committee for the strong support that you have always given for our efforts and also for the opportunities I have had over the years to appear before you, including this chance to discuss the aircraft manufacturing community in the United States.

And it is quite clear that the state of American aviation manufacturing is strong. The FAA is proud to partner with industry to find ways to make it stronger and to continue to support innovation.

As has been noted, civil aviation manufacturing is the strongest trade sector for net exports at $60 billion. The manufacturing sector supports 1.5 million jobs in the U.S. economy and contributes $165 billion to our GDP.

But more importantly, from my perspective, it contributes to our outstanding aviation safety record where we have seen no passenger fatalities in U.S. airline operations for more than 8 years. This accomplishment, our safety record, is not the result of luck or happenstance. It is the result of FAA, manufacturers, operators, and labor working together to establish sound safety standards and practices. And the bedrock of this achievement of our safety record is the FAA certification process itself, which ensures the American public and this Congress that our manufacturers are meeting safety standards.

Now this Committee has asked FAA to improve the process for certifying aviation products, and we have done just that. You wanted performance objectives and metrics. We have developed a joint industry-agency certification scorecard.

The sample scorecard you have in front of you has three sections. At the bottom, we track the manufacturer's noncompliance and implementation of corrective actions. In the middle, we measure how

well FAA is optimizing delegation based on the company's capabilities. And at the top, we actually rate each other's performance.

We recognize the need to institutionalize this partnership, and we have created an office that will regularly interact with industry to monitor these metrics. You wanted us to delegate more responsibility to manufacturers.

According to GAO, FAA designees performed more than 90 percent of certification activities. With the scorecard, FAA and our certificate holders are identifying areas where we can safely expand delegation. That means FAA is optimizing our involvement and holding manufacturers accountable.

And our industry has been clear. They appreciate these efforts. But we know that to respond to new business models and innovations, like additive manufacturing and electric propulsion, we need to be agile, and that is why we are transforming the Aircraft Certification Service.

You wanted a process to resolve disputes that slow certification. Based on industry recommendations, we developed a regulatory consistency communication board that allows for unresolved issues to be addressed in a timely fashion by a team of safety and legal experts.

You wanted us to provide support when our manufacturers sell products overseas. Starting with Europe and Canada, we have agreed to accept each other's approval of repairs, parts, and basic aftermarket modifications with no further technical review. We intend to extend this approach to Brazil.

We are also working with other national aviation authorities, countries that do considerable business with U.S. companies. For example, Ms. Baker was in China recently working with her counterpart to expand and improve the use of our bilateral agreement because the prompt validation of U.S.-designed aircrafts like the 737 MAX is among our top priorities, and because the more our international partners can rely on FAA certification, the more efficient it will be for U.S. manufacturers.

You wanted us to make it easier for the GA fleet to get safety equipment into the cockpit. First, we enabled the installation of the angle of attack indicator to address loss of control accidents, the leading cause of fatalities in general aviation. We built on that experience and issued a policy for installing other nonrequired safety-enhancing equipment.

We are also working with two applicants to introduce a streamlined approval process for low-risk articles. Once completed, we will be able to make the approval process easier for low-risk articles to be approved even faster, and that will get safety enhancing and modern safety replacement equipment into GA aircraft.

And with this Committee's strong support, we issued a new set of design standards for GA aircraft, the revision to Part 23. This rule will allow innovation and efficiency in GA aircraft design and manufacturing while ensuring the right level of safety.

As you see, we have made tremendous progress, but there is more to do. We have kicked off a committee with industry to foster collaboration in an open and transparent manner. We committed to develop a blueprint to establish shared objectives and priorities.

This will allow FAA to meet future needs and ensure aviation manufacturers remain competitive in the global marketplace.

Thank you again for this opportunity. I am happy to answer your questions.

[The prepared statement of Ms. Gilligan follows:]

PREPARED STATEMENT OF MARGARET GILLIGAN, ASSOCIATE ADMINISTRATOR, AVIATION SAFETY, FEDERAL AVIATION ADMINISTRATION

Introduction

Chairman Blunt, Senator Cantwell, Members of the Subcommittee:

Thank you for the opportunity to appear before the Subcommittee on Aviation. I look forward to providing you with updates on our progress about the aviation manufacturing industry. As you will see, even though the system and its components have become increasingly more complex, working together with industry and Congress, we nevertheless have been able to raise the safety bar.

As my career in Federal service draws to a close, I look back with pride and a great sense of accomplishment knowing how far we have come. I would be remiss not to mention the role of Congress in helping us operate and maintain what has become the world standard for safety and efficiency. Government needs to be a catalyst for innovation; we cannot put industry in the place where it must sit on its hands while the bureaucracy catches up. Thankfully, that is not the case.

The Federal Aviation Administration (FAA) has testified before Congress a number of times on manufacturing and certification issues. We made commitments, and today we come before this subcommittee having kept those commitments. We have accomplished much, and in fact, have moved well beyond what this committee contemplated as we strengthen our efforts to work with industry. The FAA Modernization and Reform Act contains provisions requiring that the FAA work more closely with industry. We are, and I would like to highlight briefly a few examples.

Keeping Our Commitments

We set the policy for expanding delegation to companies regarding the processes by which aircraft are maintained. We expanded the framework to delegate noise and emissions compliance findings. We eliminated the delay in certification project initiation by developing a new resource management process. We've also created a new training program to minimize subjectiveness in our audits of industry.

We are also taking steps to allow applicants that have demonstrated a history of technical competency in certain aspects of a certification program to be allowed to work through certification approvals without a specific finding by the FAA. This policy gives applicants greater control over their business schedules and highlights their responsibility to design and produce safe compliant products.

We have previously highlighted an initiative where, under specified conditions, the FAA and EASA would accept each other's approvals without further review. We concluded the agreement with EASA in 2016, thereby reducing time to market and fees associated with validation of the approvals by EASA. We have also reached an agreement with Transport Canada Civil Aviation for similar improvements and savings in time. We are looking to expand this agreement with Brazil. With these agreements, parts made by U.S. manufacturers move more quickly and easily in international commerce.

AIR Transformation

The FAA Modernization and Reform Act also highlighted the need for government to work better and smarter. As part of our commitment to keep pace with industry, we are transforming our Aircraft Certification Service. As you know, the Aircraft Certification Service (AIR) works to continuously improve within today's dynamic aviation environment, which is heavily characterized by change. Aviation products are designed and produced in locations around the world, and an international web of networks and complex business arrangements challenge AIR's traditional regulatory model. Technological advances and business model changes are precipitating higher rates of change and increasing the need for organizational agility as the environment shifts. The industry is both expanding and contracting much faster than the FAA can ever respond. Meanwhile, the expectations of industry, government and the flying public continue to increase, demanding we do things faster—and with greater levels of safety.

The FAA Modernization and Reform Act sought to review and reform the certification process and make it more nimble, but we are moving beyond simple reform to transformation.

To meet these demands AIR is undergoing a transformation focused on 3 goals:

- Refresh the certification strategy,
- Invest in management systems to improve performance, and
- Improve our organization and invest in our people.

Refreshing the certification strategy means FAA will take a systems approach, relying on industry's processes and competencies based on risk management. This minimizes our involvement along the certification path to those areas of higher risk.

We cannot move to managing risk unless we have systems that will focus on the use of data. Information technology will allow us to adjust our level of involvement based on risk, and assign our resources accordingly.

Investing in our people is the most important aspect of our ability to improve the organization. Our geographically based approach was established in the early 80s and was organized around the products we certify. Over the last 40 years, the industry's expansion and diversification has made that structure outdated and unable to keep up with rapidly changing global market. By moving to an organization built around the functions we perform we will better match industry's demands and global needs. Our emphasis will be placed on up front planning on new technologies with industry, development of reusable compliance techniques adaptable to industry and a shared risk-based oversight program with industry.

As we work with industry to implement our transformation, we must establish metrics to measure our success. AIR recently created a new Organizational Performance Division that will oversee our roadmap to transformation, tracking outcomes expected by both FAA and industry. The new division will establish with industry agreed upon metrics and effectiveness measures for both FAA and industry. Then we will hold each other accountable to meeting these metrics. We encourage you to visit our AIR Transformation webpage (*www.faa.gov/go/AIRTransformation*) to obtain regular updates.

Industry Collaboration

Safety is a shared responsibility, not a solitary journey. The last foundational element in our strategy recognizes that successful transformation requires industry's commitment to engage early on innovative ideas, embrace systems safety, place value on compliance, and work collaboratively with us to develop tools and measures to improve both FAA and company performance.

Working with industry, and leveraging the expertise that resides in the aviation community, continues to be advantageous to us both. In 2013, the International Civil Aviation Organization (ICAO) established a requirement for organizations that design and manufacture aircraft to have a Safety Management System (SMS). U.S. companies, looking to remain competitive on the global market, wanted a way to be recognized as having an SMS to meet the ICAO requirement. The FAA turned to industry to develop a standard that met the requirements of ICAO Annex 19. A government-industry team under the auspices of the Aerospace Industries Association and the General Aviation Manufacturers Association collaborated and published National Aerospace Standard 9927 on May 31, 2016. Less than a month later, the FAA determined the standard to be consistent with our SMS regulation and that it could be used as a voluntary means to satisfy the ICAO SMS requirement. We have developed a process to accept applications from companies that seek recognition for their design and manufacturing systems. This is just one more example of where the agency and industry are striving to reform and streamline certification in a global market.

We've also been successful working with industry to address the environmental impact of leaded fuels. Thanks to Congressional support, FAA and industry established the Piston Aviation Fuels Initiative (PAFI). Under that initiative, the FAA has made significant progress in qualifying and testing potential unleaded fuels for general aviation use. But that is just the first step. FAA will need continued Congressional support to streamline the process to approve the use of the new fuels in the more than 160,000 general aviation aircraft. We are working with aircraft and engine manufacturers, fuel producers, the Environmental Protection Agency (EPA) and industry associations to overcome technical and logistical challenges to ensure the supply of aviation gasoline is not interrupted.

Congress has shown unwavering support to our effort to streamline certification of small aircraft by rewriting Part 23 of our regulations. A major endeavor in conjunction with our Part 23 revision is streamlining the cost and timelines associated with getting safety enhancing equipment into the general aviation cockpit. We are

trying to "right size" the level of certification rigor, based on the overall risk posed by the new technology, balanced by the potential safety enhancement introduced. We have certified angle of attack equipment allowing the use of an industry-developed standard. This technology helps address loss of control, which is the most prevalent accident category in general aviation. We've gone on to streamline the process of installing other non-required safety enhancing equipment (or NORSEE) in the general aviation cockpit. Now we are beginning a prototype program with industry that looks at replacing required equipment with more modern equipment with better, safer features. As we gain more experience in weighing risk and safety value, we will rely more and more on industry to help identify the next technology that will enhance general aviation safety and save lives.

Measuring Success

We are taking steps to measure the success of our efforts to work with industry. In 2015, FAA worked with industry and developed a set of metrics aimed at measuring the overall performance and health of the Organization Designation Authorization system called ODA. The objectives were to define mutually agreed measures, identify areas that were in need of greater focus and identify issues and concerns with respect to FAA and ODA holders' performance. In collaboration with industry, the FAA initiated an ODA Scorecard Prototype to resolve implementation issues and obtain data to support implementation of the metrics nationwide. Twenty-four companies participated in this pilot project, which was concluded in December 2015.

The results of the ODA Scorecard indicated that the initiative was successful. Privately and publicly, industry leaders endorse this approach. Our industry stakeholders agree that this is the right thing to do and the right way to do it. Over 80 percent of participants indicated they experienced value in the pilot and recognized the greater potential the scorecard could present to all stakeholders. With overwhelming support and encouragement from industry, the FAA implemented the metrics nationwide for 40 ODA design approval holders in 2016.

National rollup of the Scorecard data demonstrates that FAA and industry are successfully working together to meet each other's needs. We are also identifying actions to improve how we work together. For example, over 75 percent of the companies rated the FAA as "green," or "meeting their expectations," and the trend is improving. Over 75 percent of the companies were also rated "green" by their overseeing Aircraft Certification Office, and the trend is improving there as well.

Together, we have identified areas in which additional work is needed and have developed joint action plans to improve those areas. In 2016, we completed 97 percent of the local joint action plans from the 2015 Prototype. We have chartered a joint ODA Metrics FAA-Industry Certification Improvement Team to move this initiative forward. The team's goal is to improve the reliability and accuracy of indicators. That, in turn, will help decrease the involvement of the FAA in lower risk areas and maintain industry's compliance expectation.

The ODA Scorecard is both a tool and a process to help the FAA and industry institutionalize how we improve our relationships at the local and the national level. Going forward, it is important to keep an open, constructive dialogue to be successful in this common effort. Industry and FAA need to work together to improve the product approval processes and define the timing for transition to more advanced methods of product approval.

International

As you know, our efforts to partner with industry must acknowledge the nature of the global marketplace. To that end, we continue to work toward an improved validation process, placing greater reliance on the certification systems of our bilateral partners. These improved processes are beneficial to the FAA and our international partners such as EASA when streamlining the acceptance of repairs, parts and modifications to aircraft through supplemental type certificates. Reliance on these types of agreements with emerging aviation authorities requires an up-front investment to be successful and allow U.S. industry to succeed in the global marketplace. This translates directly to enhancing the safety of the flying public.

We would also like to extend this reciprocal approach to the approval and use of foreign state-of-design continued operational safety information. As the state-of-design for U.S. manufacturers, we issue Airworthiness Directives (ADs) when there is an unsafe condition on a U.S. product. Many foreign countries that own or operate U.S. products use our ADs and immediately adopt the corrective methodology that they describe. As the certifying authority, we work with the manufacturer to develop the corrections for the unsafe conditions and have the best information to assess the risk, the corrective action, and proper timeline for implementation. The foreign equivalent of our AD is a mandatory continued airworthiness information

(MCAI), from a foreign State of Design. Just as we have the best insight into the continued safety of our products, foreign manufacturers and their certifying authorities have the best technical knowledge of their products and how to maintain the intended level of safety. Unfortunately, our rulemaking process makes it impossible for us to simply adopt corrective actions from other aviation authorities, like EASA. Instead, we have to conduct repetitive assessments and issue our own corrective action. This repetition costs FAA time and money that could be working on the next safety issue for the U.S. fleet. It also delays the implementation of the safety fix, resulting in a U.S.-operated foreign product that could be less safe than the same product operated by foreign users. Allowing the FAA to leverage the work done by a competent foreign authority would result in a safer global aviation system.

The industry is changing rapidly, and the threats that face it are evolving equally quickly. To counter one such threat, we are working with industry on cyber security. We have taken allegations of successful cyber vulnerabilities to civil aircraft very seriously.

Since 2005, we have been addressing cyber vulnerabilities during the design and certification process using two Special Conditions. These Special Conditions, which carry the weight of regulations, were first applied to the Boeing 787 program. The 787 was the first "e-enabled" aircraft, meaning that it had Internet protocol-based (IP-based) systems that are accessible from within the airplane and externally. Our two Special Conditions focused on those access points, both inside and outside the aircraft. Since the certification of the 787, these Special Conditions have been applied to other certification programs, as well as to aircraft that are being updated to add passenger features, like Internet access and Wi-Fi.

Realizing that we potentially needed more protection for important aircraft systems, the FAA tasked the Aviation Rulemaking Advisory Committee (ARAC) to form a working group to provide recommendations on cybersecurity. ARAC answered our request and the Aircraft Systems Information Security and Protection (ASISP) working group was formed in 2015. The working group membership was comprised of a wide range of domestic and international industry and government experts. We also invited three international aviation authorities to be observers—Transport Canada, EASA, and ANAC, the Brazilian authority. The working group delivered its report to the ARAC in mid-September and the ARAC forwarded it to us in early October.

There are 30 recommendations that range from rulemaking to developing best practices. The recommendations were aimed at the full spectrum of civil aviation products—from transport aircraft to general aviation aircraft to engines. We will take the working group's recommendations and work together to establish an internationally harmonized basis to protect civil aircraft from cyber vulnerabilities. We need to work as one to establish a set of common requirements that can be institutionalized globally, so that aircraft designers and operators are confident that their aircraft are protected in domestic and foreign airspace.

We also intend to engage ICAO and its membership to help inform a regulatory framework for cyber protection. ICAO provides a unique ability to leverage foreign expertise and an invaluable forum that fosters international acceptance. We are sending a delegation to Montreal later this month to initiate this effort. Cybersecurity of civil aircraft is a priority for us.

Conclusion

We have been diligent in our efforts to address what is at the heart of your direction: that the system be responsive, flexible and safe. We are making sure that our own organization is among the first to adapt to the new world market. AIR is transforming to improve its efficacy to meet the needs of industry while advancing the FAA's mission to provide the safest, most efficient aerospace system in the world. As a result, to respond to the drivers of change, we are moving forward with a *comprehensive* approach to increasing efficiency and effectiveness, known as *AIR Transformation.*

This concludes my statement. I will be happy to answer your questions at this time.

Senator BLUNT. Thank you, Ms. Gilligan.
Dr. Dillingham.

STATEMENT OF GERALD L. DILLINGHAM, PH.D., DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Dr. DILLINGHAM. Thank you, Mr. Chairman, Ranking Member Cantwell, members of the Subcommittee.

At the request of this subcommittee and other committees of the Congress, GAO has tracked and reported on several occasions on FAA efforts to improve its certification and approval processes, as well as its efforts to achieve greater consistency in the interpretation of its regulations.

In 2015, during the course of examining certification issues, we also heard from industry stakeholders that they were experiencing some serious difficulties in getting their U.S. certificate products approved or validated for sale and export to foreign markets.

My statement today is our latest status report on FAA's efforts in these areas and focuses specifically on FAA's progress in implementing the recommendations issued by the aviation rulemaking committees that were established as a result of the 2012 FAA Modernization and Reform Act and FAA's responses to the challenges that some U.S. companies reported to us that they were facing when attempting to obtain foreign validations for their products.

Mr. Chairman and members of the Subcommittee, this is largely a good news story for FAA and industry. FAA has made significant progress in addressing both committees' recommendations. FAA has completed 13 of the 14 initiatives it developed to address the 6 *certification process* committee's recommendations. It is worth noting that five of the completed initiatives involve improving and expanding the ODA program.

For FAA, these changes can mean being able to do more with its limited resources. And for industry, these changes can mean potentially fewer delays in completing certification tasks.

As you just heard from Ms. Gilligan, FAA is planning to roll out the outcome of the 14 initiatives into a large organizational transformation concept for its Aircraft Certification Service. We think this is an extremely important step forward.

Regarding the *regulatory consistency* committee's recommendations, FAA has initiated or completed actions to address five of the six committee recommendations. The agency's actions to date include finalizing the order to create a Board to provide clarification on regulation-related questions from FAA inspectors and industry stakeholders, and improve the training curriculum for agency personnel who are charged with developing the relevant policies and guidance documents.

FAA is continuing work on a very critical recommendation to develop an electronic platform that will allow agency and industry users to access consolidated information on FAA's regulations and guidance.

Regarding the challenges that U.S. companies face when seeking foreign validation and approval of their products, as FAA has testified, the agency's efforts to date include working with the civil aviation authority for the European Union to develop a roadmap of various initiatives aimed at reducing the time and cost involved in obtaining approvals of U.S. and European aviation products. According to FAA, changes completed to date have already begun to

eliminate some fees for parts approval and reduce the approval time for simple, low-risk modifications of product design from weeks to days.

FAA officials tell GAO that it plans to use this roadmap as a template for working with other countries on these issues. The industry representatives that we interviewed said that they consider this a very viable plan if implemented as designed.

Mr. Chairman, Ranking Member Cantwell, and members of the Subcommittee, as we said earlier, this is largely a good news story. However, we would be remiss if we did not point out some of the very difficult challenges that FAA must address to continue its progress and achieve the stated goal of efficient certification and validation processes.

First, FAA must maintain its commitment at all levels of the organization to the changes that have been described here this morning and keep going forward with implementation of its plans. Success will also require continued stakeholder communications and involvement, and continued congressional oversight.

Second, FAA's initiatives and plans will mean doing business in a different way. This will require a cultural change for FAA and industry stakeholders. Cultural change and organizational transformation are very difficult and can require a significant amount of time and resources to achieve.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Dillingham follows:]

GAO HIGHLIGHTS

Why GAO Did This Study

FAA issues certificates approving new U.S.-manufactured aviation products, such as new aircraft, engines, and propellers. GAO has previously reviewed the efficiency of FAA's certification process and the consistency of its regulatory interpretations. As required by the 2012 FAA Modernization and Reform Act, FAA chartered two aviation rulemaking committees—one to improve certification processes and another to address regulatory consistency—that recommended improvements in 2012. FAA also assists U.S. aviation companies seeking approval of their FAA-certificated products in foreign markets. FAA has negotiated agreements with many of its counterparts in other countries to provide a framework for the reciprocal approval of aviation products. However, GAO testified in April 2015 that selected U.S. aviation companies reported challenges in obtaining such approvals, citing delays and cost.

This testimony discusses (1) the status of FAA's progress in implementing the aviation rulemaking committees' 2012 recommendations and (2) FAA's responses to the challenges that selected U.S. companies reported in 2015 that they faced when attempting to obtain foreign approvals of their products. It is based on GAO products issued from 2010 to 2015, selectively updated in March 2017 based on FAA documents and information from FAA officials and three key industry stakeholder organizations.

AVIATION CERTIFICATION

FAA Has Made Continued Progress in Improving Its Processes for U.S. Aviation Products

What GAO Found

The Federal Aviation Administration (FAA) has made progress in addressing two rulemaking committees' recommendations regarding its certification process and the consistency of its regulatory interpretations.

- FAA has completed 13 of 14 initiatives for addressing the 6 *certification process* recommendations. For example, 5 of the 13 completed initiatives involved improving and expanding its program that authorizes other organizations to act on its behalf in issuing certificates. The remaining initiative—issuing a final

rule on regulations dealing with the certification of aircraft products—will likely not be issued this calendar year due to internal delays and the administration's efforts to review agencies' rules and regulations. FAA's Aircraft Certification Service (AIR) is responsible for implementing the certification process initiatives and the outcomes of the 14 initiatives are intended to be rolled into a larger organizational transformation concept. The initial phase involves restructuring AIR's organization, shifting its structure from a product-based focus to a function-based focus, with a new division responsible for monitoring and managing performance. FAA expects to complete this realignment in 2017, and noted that the overall aim of this transformation is to create a process that is more responsive to stakeholder expectations and more efficient and effective.

- FAA has completed efforts to address 2 of the 6 *regulatory consistency* recommendations, has efforts underway to address three, and is not planning to implement one. Completed efforts include ensuring better clarity in final rules and improvements in regulatory training for FAA personnel and industry. FAA is continuing work on an electronic platform to allow agency and industry users to access consolidated information on regulations and on creation of a consistency board to provide clarification on regulation-related questions from FAA and industry stakeholders. FAA did not establish a centralized support center to provide guidance to FAA personnel and industry, noting the consistency board would do this.

FAA has also made progress in developing measures for assessing the outcomes of the actions being taken for most of the initiatives. In addition, industry stakeholders GAO spoke to indicated a better sense of progress being achieved by FAA and better communication and collaboration from FAA.

FAA has continued efforts to address challenges that selected U.S. aviation companies reported facing when seeking foreign approval of their products. In April 2015, GAO testified on these challenges, which included the length and uncertainty of some approval processes, difficulty with communications, and high fees. FAA's efforts to address these challenges include working with its counterpart in the European Union to develop a "roadmap," approved in February 2016, of various initiatives aimed at reducing the time and costs of European approval of U.S. aviation products. According to FAA, completed changes have already eliminated approval and associated fees for all approved aircraft parts and reduced the approval time for simple low-risk modifications of product design from weeks to days. FAA plans to use this roadmap as a template for working with other countries on these issues.

PREPARED STATEMENT OF GERALD L. DILLINGHAM, PH.D., DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Chairman Blunt, Ranking Member Cantwell, and Members of the Subcommittee:

I am pleased to be here today to testify on the status of the Federal Aviation Administration's (FAA) efforts to improve its processes for certifying new aviation products for domestic use, and the challenges faced by U.S. aviation companies seeking product approvals in foreign countries. Studies published since 1980,[1] our prior work,[2] industry stakeholders, and experts have long raised questions about the efficiency of FAA's certification processes and varying interpretations and applications of its regulations in making compliance decisions during certification. The 2012 FAA Modernization and Reform Act required FAA to work with industry to resolve issues related to the efficiency of its certification processes and varying interpretations and applications of its regulations in making compliance decisions during certification.[3] In response, FAA chartered two aviation rulemaking committees—

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[1] See National Academy of Sciences, *Improving Aircraft Safety: FAA Certification of Commercial Passenger Aircraft,* National Research Council, Committee on FAA Airworthiness Certification Procedures (Washington, D.C.: June 1980); Booz Allen & Hamilton, *Challenge 1000: Recommendations for Future Aviation Safety Regulations* (McLean, VA: Apr. 19, 1996); RTCA Task Force 4, *Final Report of the RTCA Task Force 4 "Certification"* (Washington, D.C.: Feb. 26, 1999; and Independent Review Team Appointed by Secretary of Transportation Mary E. Peters, *Managing Risks in Civil Aviation: A Review of FAA's Approach to Safety* (Washington, D.C.: Sept. 2, 2008).

[2] GAO, *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.: Oct. 7, 2010); and GAO, *Aircraft Certification: New FAA Approach Needed to Meet Challenges of Advanced Technology,* GAO/RCED–93–155 (Washington, D.C.: Sept. 16, 1993).

[3] FAA Modernization and Reform Act of 2012, Pub. L. No. 112–95, §§ 312, 313, 126 Stat. 11, 66, 67 (2012).

one to address *certification process* issues (the Certification Process Committee) and another to address *regulatory consistency* issues (the Regulatory Consistency Committee)—which recommended improvements in 2012. FAA also assists U.S. aviation companies in getting their U.S.-certificated products approved for sale and export to foreign countries. However, in a January 2015 testimony, we noted that representatives of 15 selected U.S. aviation companies we interviewed reported that their companies faced challenges related to process, communications, and cost in obtaining such approvals.[4] For example, some raised concerns that some countries do not accept the FAA certification and conduct their own approval processes for U.S. products, which they said can be lengthy and provide no additional safety benefit.

My statement today discusses (1) the status of FAA's progress in implementing the aviation rulemaking committees' 2012 recommendations regarding its certification process and the consistency of its regulatory interpretations and (2) FAA's responses to the challenges that selected U.S. companies reported to us in 2015 that they faced when attempting to obtain foreign approvals of their products. This testimony is based on several GAO products issued from 2010 through 2015[5] and selected updates of this work conducted in March 2017. These updates are based on FAA documents and information from FAA officials and selected industry stakeholders, including the Aerospace Industries Association, Aeronautical Repair Station Association, and General Aviation Manufacturers Association.[6] Each of these products contains detailed information on our objectives, scope, and methodology for performing this work. The work on which this statement is based was performed in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

FAA Has Made Continued Progress in Addressing the Certification Process and Regulatory Consistency Committees' Recommendations

FAA Has Completed All But One of the Initiatives to Improve Its Aircraft Certification Processes and Has Implemented a Tool to Help Measure the Outcomes of Some Initiatives

As you know, among its responsibilities for aviation safety, FAA's Aircraft Certification Service (AIR) grants approvals (called type certificates) for new aircraft, engines, and propellers. Certification projects, which involve the activities to determine compliance of new products with applicable regulatory standards and to approve products for certificates, are typically managed by one of AIR's local offices (generally known as aircraft certification offices).[7]

In 2012, the Certification Process Committee made six recommendations. As of March 2017, FAA has made significant progress in addressing these recommendations, but as we testified in April 2015, challenges remain that could affect their successful implementation.[8] AIR has been primarily responsible for addressing these recommendations. FAA's plan for addressing them involves completing 14 initiatives. According to a March 2017 update that FAA provided to us, 13 initiatives have been completed. These initiatives included developing a roadmap for change initiatives and a tracking system for certification initiatives, improving and expand-

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[4] GAO, *Aviation Safety: Issues Related to Domestic Certification and Foreign Approval of U.S. Aviation Products,* GAO–15–327T (Washington, D.C.: Jan. 21, 2015).

[5] GAO, *Aviation Certification: Issues Related to Domestic and Foreign Approval of U.S. Aviation Products,* GAO–15–550T (Washington, D.C.: Apr. 21, 2015); GAO–15–327T; *Aviation Manufacturing: Status of FAA's Efforts to Improve Certification and Regulatory Consistency,* GAO–14–829T (Washington, D.C.: July 31, 2014); *Aviation Safety: FAA's Efforts to Implement Recommendations to Improve Certification and Regulatory Consistency Face Some Challenges,* GAO–14–728T (Washington, D.C.: July 23, 2014); *Aviation Safety: Status of Recommendations to Improve FAA's Certification and Approval Processes,* GAO–14–142T (Washington, D.C.: Oct. 30, 2013); GAO–11–14.

[6] The Aerospace Industries Association represents the U.S. aerospace and defense industry. The Aeronautical Repair Station Association is the international trade group that represents certificated repair stations and the global civil aviation maintenance industry. The General Aviation Manufacturers Association represents leading global manufacturers of general aviation airplanes and rotorcraft, engines, avionics, and components.

[7] AIR has local offices that serve geographic areas across the United States for aircraft certification-related activities: Anchorage, AK, Atlanta, GA; Boston, MA; Chicago, IL; Denver, CO; Fort Worth, TX; Los Angeles, CA; New York, NY; Seattle, WA; and Wichita, KS.

[8] GAO–15–550T.

ing FAA's organization designation authorization (ODA) program,[9] improving the project sequencing process, improving the validation process,[10] expediting the rulemaking process, and reorganizing the regulations for the certification of small airplanes.[11] The one initiative that is not complete involves a revision of regulations dealing with the certification of aircraft products and parts to include a systems safety approach.[12] FAA had planned to issue a final rule with these revisions in June 2017. However, FAA officials told us that given internal delays and the administration's efforts to review agencies' rules and regulations, the notice of proposed rulemaking will not be issued in the 2017 calendar year.

Five of the completed certification process initiatives were related to ODA. In January 2015, we noted that industry stakeholders favored expanding the ODA program, while the employee unions were concerned about FAA resources to effectively expand it.[13] With completion of all five ODA-related initiatives, FAA has completed all items in its ODA action plan, deployed specialized audit training for personnel conducting supervision of ODA inspections, and expanded delegation to authorize designees to approve instructions for continued airworthiness,[14] emissions data, and noise certification.

Based on an update from FAA in March 2017, FAA also developed an ODA scorecard as a measure of the outcome of all of the ODA-related initiatives. The scorecard was developed in collaboration with industry and to determine how well the ODA program is doing. Specifically, the scorecard is used to monitor performance metrics for both manufacturer compliance to the standards related to delegated activities, and FAA utilization and delegation oversight. FAA created a prototype of the scorecard, with consultation with industry stakeholders, and conducted a test trial with industry volunteers in 2015. The trial led to several national level improvement initiatives. For example, the scorecard revealed that FAA policy required its staff to review low-risk design changes and mandated that project notification letters be created for almost all ODA project activity. FAA issued a policy amendment to eliminate the letters, where appropriate; this should result in reducing FAA involvement. By the end of 2016, FAA had implemented the scorecard across all ODAs that have design approval authorization.

According to FAA officials, they chartered an ODA Scorecard Continuous Improvement Team comprised of FAA and industry representatives to conduct analyses of the ODA scorecard data across each year, and to jointly consider recommendations and options for continually improving areas of the certification process.

AIR Is in the Process of a Major Transformation, Including an Organizational Realignment, to Improve Its Certification Process

Based on an update from FAA in March 2017, AIR has initiated the AIR Transformation, envisioned as a holistic approach to creating a certification process that is more responsive to stakeholder expectations and changes in the environment and that increases efficiency and effectiveness. AIR plans that this transformation concept will include the 14 certification process initiatives discussed above, as well as take into account a variety of other sources affecting this process—such as previous GAO work, congressional hearings, industry and market drivers of change, and international commitments. According to FAA, the transformation seeks to focus AIR's contributions to safety in ways that will be more effective for achieving safety improvements, such as supporting industry's innovation by engaging companies early to understand new concepts and ensure a viable path to compliance. FAA expects benefits from the transformation to include a more agile and adaptable AIR organization as well as a streamlined certification process and improvements to consistency in how the process is carried out.

According to FAA's plans, the key enabler of the reorganization is the organizational realignment and it will initially involve AIR shifting from its product-based structure to one that is functionally aligned. For example, the current directorates (*e.g.,* small airplane, rotorcraft) will be replaced by five functional divisions (see

[9] FAA's ODA process is used to authorize organizations (designees) to act on behalf of FAA in conducting some safety certification work. 14 C.F.R. § 183.41(a).

[10] The approval (*i.e.,* validation) process is a form of certification to establish compliance for aviation products designed outside the country for which the products are being developed in order to issue a type certificate for these products.

[11] Small airplanes are certificated under 14 C.F.R. Part 23.

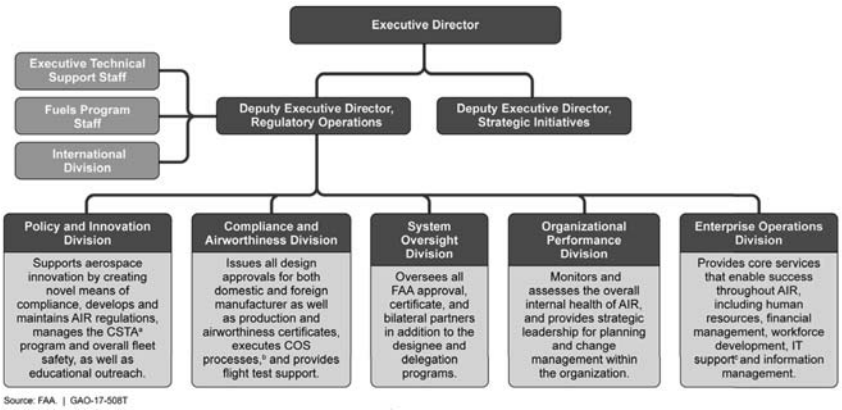
[12] Certification Procedures for Products and Articles, 14 C.F.R. pt. 21 (2017). A system safety approach is an organizational oversight philosophy to identify and control the hazards and risks associated with the various elements of a system on an individual and system level.

[13] GAO–15–550T.

[14] Instructions for continued airworthiness include such things as maintenance manuals and inspection programs for maintaining operational safety of aviation products.

fig. 1). Three of the divisions—policy and innovation, compliance and airworthiness, and system oversight—will perform essential regulatory functions. Two other divisions—organizational performance and enterprise operations—will provide strategic leadership for planning and change management and core services to the organization, respectively. Specifically, the organizational performance division will be tasked with establishing practices for monitoring and managing the performance of AIR. AIR plans to complete the realignment process in calendar year 2017. In March 2017, AIR published its AIR Blueprint that outlined the strategic vision for the AIR transformation and included 8 vision elements, and which was reviewed by industry in draft. AIR has begun working with industry in developing a Comprehensive Strategic Plan (the what). Also, AIR has begun working with industry in developing a *Comprehensive Strategic Plan* for the entire transformation. Industry participants are co-leading 4 of the 8 elements to further develop what is needed to be achieved for each of those vision elements. AIR officials told us that until the strategic plan has been completed, they cannot estimate when the transformation will be expected to be completed. They noted that the strategic plan will allow them to determine the needed implementation steps (the how) and time frames, which they intend to document in an implementation plan.

Figure 1: Proposed Realignment of the Federal Aviation Administration's (FAA) Aircraft Certification Service (AIR)



Source: FAA. | GAO-17-508T

[a] Chief Scientific and Technical Advisors. This program consists of a cadre of specialized technical experts involved in certification, research & development, education & training, and technical advising.

[b] Continued operational safety (COS). COS processes refer to oversight of the people and products already operating within the national airspace system.

[c] Information technology.

As part of the transformation, FAA, in conjunction with industry, has also revised and updated the Certification Process Improvement guide, which would be the first revision since 2004. The updated guide will contain a description of the purpose and vision of the certification process and also includes an overview of the phases for product certification. The revised guide will also include the ODA Program, including the roles related to expanded delegation authority from FAA to ODA holders. According to FAA, this tool will help to improve the efficiency and effectiveness of the product certification process by establishing a clear, up-front understanding of the needs and expectations of all parties involved in the product certification process. The revised guide is currently out for comment.

The three aviation industry groups we contacted recently to discuss FAA's progress in implementing the certification process initiatives recognized FAA's success in completing the bulk of the initiatives, and in general, its efforts to remain transparent while doing so. However, one group was concerned that "completion" meant that a task had been completed, not necessarily that the actions taken to complete the initiative produced observable benefits to FAA or industry. For instance, even though FAA developed its roadmap for the change initiatives, it is difficult to determine what has been achieved and whether or not the initiatives are efficient and effective. However, FAA officials said the AIR realignment and transformation efforts will help address these concerns. For instance, the AIR organiza-

tional performance division was put in place last year and will monitor and assess the overall internal health of AIR and provide strategic leadership for planning and change management—including implementation of the certification process initiatives—within the organization. Regarding the AIR transformation, the groups had mixed reactions. Two groups were generally supportive, but cautiously skeptical, of the forthcoming functional organizational structure. One group was concerned that it would spread responsibility and accountability across newly-created function offices, which they said could present challenges for companies to resolve certification problems with FAA when they arise. This group was also concerned that there was little industry engagement before the plan for the transformation was unveiled. However, FAA officials told us they had been engaging with industry all along on AIR Transformation and a potential reorganization of AIR. FAA officials also noted that the new organizational structure is changing the reporting hierarchy, and allowing AIR to provide more consistent responses to companies during the certification process. In addition, they said companies would maintain the same points of contact for undergoing certification of their aviation products.

FAA Has Made Progress in Addressing the Remaining Recommendations to Improve the Consistency of Its Regulatory Interpretations

In 2012, the Regulatory Consistency Committee made six recommendations to address issues it had found related to FAA's consistency in interpreting and applying its regulations when making decisions during certification regarding compliance with these regulations. As of March 2017, FAA has made progress in addressing these recommendations. FAA's Flight Standards Service (AFS) has been primarily responsible for addressing them. As you know, AFS issues certificates and approvals allowing individuals and entities to operate in the national airspace system. Based on our previous work [15] and an update that FAA provided to us in March 2017, FAA has completed efforts to address two of the six recommendations, has efforts underway to address three, and is not planning to implement one, as discussed below:

Completed FAA Efforts

- *Clarity of final rules.* The Regulatory Consistency Committee had recommended that FAA ensure that each final rule includes a comprehensive explanation of the rule's purpose and how it will increase safety. In response, FAA implemented a rulemaking prioritization process and tool in 2013. FAA officials told us in 2015 that they considered this recommendation addressed through those efforts as well as other process elements already in place to ensure clarity in final rules.
- *FAA and Industry Training Priorities and Curriculums.* The Regulatory Committee had recommended that FAA, in consultation with industry stakeholders, review and revise its regulatory training for applicable agency personnel and make the curriculum available to industry. According to an update provided to us by FAA in March 2017, it had addressed this recommendation through a number of course requirement and programmatic changes made by AFS and AIR that will enable them to continually evaluate, improve, and align course content with workforce needs. Specifically, over the past 2 years, they have created a more agile course development and management system by introducing new course development and revision request procedures, adding needs analyses requirements, and expanding course offering assessments. FAA also reported that it had received concurrence from the committee members on July 1, 2015 that this recommendation was addressed.

Ongoing FAA Efforts

- *Master Source Guidance System.* The Regulatory Consistency Committee had recommended that FAA develop a master system that would consolidate rules and guidance to improve access to them by FAA and industry users. In response, FAA is developing the Dynamic Regulatory System (DRS), an electronic platform that will allow users to search the content of various sources—such as the Code of Federal Regulations and FAA's internal systems dealing with regulations and guidance, FAA legal interpretations, and exemptions, through a single interface. The DRS is currently being tested by internal and external stakeholders, including the Aeronautical Repair Station Association and the General Aviation Manufacturers Association. FAA plans to roll it out in phases with an initial roll out to internal users to be completed by the end Fiscal Year 2018. The rollout for external users has not yet been determined.

[15] GAO–15–550T.

- *Develop instructions for FAA personnel with policy development responsibilities.* The Regulatory Consistency Committee had recommended that FAA ensure consistency in the interpretation and application of regulations by developing a standardized method for developing policy and guidance documents based on them. In response, in January 2016, FAA issued an order on guidance document development.[16] This order outlines the role and correct usage of guidance documents within a regulatory schema. According to FAA, the Regulatory Consistency Committee members concurred that the order was responsive to the recommendation.
- *Regulatory Consistency Communications Board (RCCB).* The Regulatory Consistency Committee had recommended that FAA establish such a board comprising various FAA representatives that would provide clarification on questions from FAA and industry stakeholders on the application of regulations. The RCCB consists of a chair, liaison, and points of contact—who are staff from each AFS and AIR policy office, each Aircraft Evaluation Group, and the Regulations Division. The RCCB also includes subject matter experts to support resolution of the issues. The RCCB process was introduced with an initial submission of 12 issues in 2015 for the RCCB to consider. The RCCB has addressed all but one of the issues. FAA expects the RCCB process to complement other issue resolution mechanisms, such as the Consistency and Standardization Initiative,[17] and the RCCB does not replace this internal process or other issue-resolution processes available to internal and external stakeholders. FAA finalized an order establishing the RCCB on March 9, 2017.[18]

Not Implemented

- *Regulatory Operations Communication Center.* The Regulatory Consistency Committee had recommended that FAA determine the feasibility of establishing a full-time Regulatory Operations Communication Center as a centralized support center to provide real-time guidance to FAA personnel and industry certificate and approval holders and applicants. Based on an update from FAA in March 2017, FAA chose not to address this recommendation because, according to FAA officials, the agency has addressed the intent of this recommendation with its plan to establish the RCCB, as described above.

FAA Has Taken Steps to Address Challenges to Implementaton of the Committees' Recommendations

While FAA has continued to make progress in addressing the committees' recommendations, it is still too soon for us to determine whether the recommendations have been adequately addressed. Challenges that could affect the successful implementation of FAA's planned actions remain, and FAA has taken steps to address them. Industry stakeholders we interviewed remained concerned about FAA's ability to measure the benefits and effectiveness of the actions being taken as a whole. Though most of the initiatives have been noted as completed by FAA, stakeholders raised concerns that completion, in many cases, means that a document or process was completed and not whether the outcome of its efforts will successfully address the committees' recommendations. FAA officials acknowledged that there are challenges ahead that could affect the successful outcomes of its planned actions, but said they had begun to put measures in place to monitor potential outcomes. FAA's implementation plans for addressing the recommendations include "measures of effectiveness" for most of the initiatives, and according to FAA, will to be used for measuring the outcomes of FAA's efforts. Also, to its credit, FAA has been more active in communicating its work on these initiatives. FAA has held regular meetings with industry representatives and has kept the committees' members apprised of their accomplishments.

In our July 2014 statement, we noted that for organizational transformations, implementing large-scale change management initiatives—like those the committees tasked FAA with—are not simple endeavors and require the concentrated efforts of both leadership and employees to realize intended synergies and accomplish new or-

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[16] FAA Order 8000.96, *Flight Standards Service Guidance Document Development,* January 2016.

[17] The FAA Office of Aviation Safety implemented the Consistency and Standardization Initiative in 2004 to provide industry stakeholders with a mechanism for appealing certification and other decisions. For more information, see GAO–11–14.

[18] FAA Order 8000.70, *Regulatory Consistency Communication Board (RCCB),* March 2017. FAA indicated on March 20, 2017 that this order had been signed by FAA's Aviation Safety Organization, which houses AFS and AIR, but that permission to post it on the FAA website had not yet been granted.

ganizational goals.[19] The best approach for these types of initiatives depends upon a variety of factors specific to each context, but there has been some general agreement on a number of key practices that have consistently been found at the center of successful change management initiatives. These include, among other things, securing organizational support at all levels, developing clear principles and priorities to help change the culture, communicating frequently with partners, and setting performance measures to evaluate progress. Based on our prior work and updates from FAA in March 2017, FAA has taken some necessary steps to address these additional challenges to successfully implementing the committees' recommendations.

- *Organizational support.* We have previously found that successful organizational transformations and cultural changes require several years of focused attention from the agency's senior leadership.[20] Top leadership's clear and personal involvement in the transformation represents stability for both the organization's employees and its external partners. According to one stakeholder group we interviewed in March 2017 and updates from FAA, it is clear that FAA's senior leadership has been focused on the transformations and cultural changes emanating from the certification process and regulatory consistency initiatives.
- *Commitment to cultural change.* We previously found that FAA's organizational culture was a primary challenge for successfully implementing the initiatives and cultural shifts were necessary for FAA staff in how regulations, policy, and guidance are applied, and ultimately how certification and approval decisions are made. AIR established the organizational performance division with dedicated staff to facilitate change management and the cultural shift. In March 2017, FAA officials emphasized that for the AIR transformation to succeed, industry has to forgo past perceptions about negative experiences with FAA inspectors and engineers on certification issues. They told us that success of the transformation will depend, in part, on industry's buy-in, engagement, and recognition that they are a key part of the cultural shift. FAA officials emphasized that for the AIR transformation to succeed industry also has to commit to change. However, FAA and industry must hold themselves accountable to building a compliance culture within their organizations and to engage in constructive dialogue to resolve issues at the lowest level possible.
- *Communication with stakeholders.* We have previously found that successful agencies we have studied based their strategic planning, to a large extent, on the interests and expectations of their stakeholders, and that stakeholder involvement is important to ensure agencies' efforts and resources are targeted at the highest priorities.[21] In March 2017, industry representatives we spoke to indicated that communication has been a higher priority for FAA as it has kept the industry and committees apprised of the progress of its initiatives. According to FAA officials, they have conducted numerous briefings to industry stakeholders on the status of the certification process initiatives and the realignment/transformation, as well as to congressional committees and subcommittees.
- *Setting performance measures.* We found in 2014 that FAA had not fully developed performance metrics to ensure the initiatives are achieving their intended outcomes. For this statement, we observed that AIR and AFS are developing such outcome-based performance measures. For instance, AIR has consulted a report by a leading expert in organizational performance metrics—as we suggested to them. The officials told us that the realignment and transformation efforts are an opportunity for AIR to incorporate outcome-based performance measures intended to better align resources, address industry needs, and ensure staff accountability and consistency for decisions being made across the group functions. The organizational performance division is to monitor and assess the operational performance of AIR to ensure continuous improvement within the organization. As we have noted since 2014, it is critically important that FAA develop outcome-based performance measures to determine what is actually being achieved through the current and future initiatives.

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[19] GAO–14–728T.

[20] GAO, *National Airspace System: Transformation Will Require Cultural Change, Balanced Funding Priorities, and Use of All Available Management Tools,* GAO–06–154 (Washington, D.C.: Oct. 14, 2005).

[21] GAO, *Executive Guide: Effectively Implementing the Government Performance and Results Act,* GAO/GGD–96–118 (Washington, D.C.: June 1, 1996).

FAA Has Taken Additional Steps to Address Challenges U.S. Companies Face Obtaining Foreign Approvals of Their Aviation Products

As counterparts to FAA, other countries' foreign civil aviation authorities (FCAA) approve U.S.-manufactured aviation products for use in their respective countries. These approvals (known as "validation") are typically conducted within the parameters of bilateral aviation safety agreements (BASA), which are negotiated between FAA and other FCAAs. As we testified in April 2015, some countries accept the FAA approval outright as evidence that the product is safe for use in their country.[22] Some countries, however, do not accept the FAA certification and conduct their own approval processes for U.S. products, which can be lengthy, according to some U.S. industry stakeholders. Specifically, at that time, we identified several challenges related to FCAAs' approval processes that selected aviation companies had reported to us. These challenges included (1) the length of and uncertainty about some FCAA approval processes, (2) the lack of specificity and flexibility in some of the BASAs negotiated between FAA and FCAAs, (3) difficulty with or lack of FCAA communications, and (4) high fees charged by some FCAAs.

We testified in April 2015 that FAA had taken some actions to address these challenges. Since we last testified, FAA has taken further actions to address them. Most notably, FAA has worked with the FCAA for the European Union, the European Aviation Safety Agency (EASA), to improve the process for EASA approval of U.S. aviation products. One key outcome of this effort was the development of a "roadmap" for improving the validation process. This roadmap, which was approved in February 2016, aims to reduce the time and costs of EASA approval of U.S. aviation products by 20 percent compared to a 2011 agreement under the BASA. The roadmap includes a number of initiatives, including the release of the revised implementation procedures that are planned for completion in April 2017, and extend through the 2022 time-frame established by the roadmap. According to FAA, changes completed to date have already eliminated approval and associated fees for all approved aircraft parts and reduced the approval time for simple low-risk modifications of product design from weeks to days.

Based on an update from FAA in March 2017, the agency plans to use this roadmap as a template for working with other countries on these issues. FAA is planning to work with Canada and Brazil to reduce validation approval time, and is working with other partners to incorporate a risk-based approach to validation into BASAs to promote streamlined validation of approvals. FAA is also engaging with the International Civil Aviation Organization[23] on specific validation initiatives to gain global recognition of its best practices. One industry group that we recently spoke to indicated that FAA should focus its efforts on countries with less mature civil aviation authorities, and ensure that FAA resources are spent on high-risk and new technology and innovative products.

FAA provides assistance to U.S. companies by facilitating the application process for foreign approvals of aviation products. In April 2015, we also testified on several challenges related to FAA's role in this process that selected aviation companies had reported to us. These challenges involved (1) FAA's process for facilitating validation approval applications, which sometimes delayed the submission of applications to FCAAs; (2) limited availability of FAA staff for facilitating approval of applications; and (3) lack of FAA staff expertise in issues unique to foreign approvals, such as intellectual property concerns and export control laws. We testified that FAA's efforts to increase the efficiency of its foreign approval process could help address reported challenges related to FAA's process and its limited staff and financial resources. Since that time, FAA has made further progress in addressing these types of challenges. Specifically, in September 15, 2015, FAA signed agreements with EASA and Transport Canada Civil Aviation (Canada's FCAA), that allow the authorities to rely on each other's regulatory systems to approve products. The new safety agreements allow reciprocal acceptance of the majority of Technical Standard Order (TSO)-approved articles. According to FAA, this change benefits the U.S., Canadian, and European aerospace industries by eliminating fees and time required to get the other authorities' approval. FAA has also continued efforts to improve the

[22] GAO–15–550T.

[23] ICAO was formed following the 1944 Convention on International Civil Aviation, and in 1947 it became a specialized agency of the United Nations. A primary objective of ICAO is to provide for the safe, orderly, and efficient development of international civil aviation. There are currently 191 signatory nations to the Chicago convention, including the United States. ICAO members, including the United States, are not legally bound to act in accordance with ICAO standards and recommended practices. Nations that are signatories to the Chicago convention, however, agree to cooperate with other member countries to meet standardized international aviation measures.

robustness of its data on foreign approvals, to further improve the efficiency of its process for supporting these approvals. FAA officials reported in March 2017 that they have established basic performance metrics, such as acknowledging receipt of validation applications and identifying missing information within a specific time period.

We plan to continue to monitor FAA's progress, highlight the key challenges that remain, and identify potential steps that FAA and industry can take to find a way forward on the issues covered in this statement as well as other issues facing the industry. Some initiatives will likely take years to implement and, therefore, will require FAA's sustained commitment as well as congressional oversight.

Chairman Blunt, Ranking Member Cantwell, and Members of the Subcommittee, this concludes my prepared remarks. I would be happy to answer any questions you or other members of the Subcommittee may have.

Senator BLUNT. Thank you, Dr. Dillingham.

Mr. Fedele.

STATEMENT OF GREGORY J. FEDELE, EXECUTIVE VICE PRESIDENT—CORPORATE DEVELOPMENT, INOVA AEROSPACE

Mr. FEDELE. Chairman Blunt, Ranking Member Cantwell, and distinguished members of the Subcommittee, thank you for the opportunity to testify today. My name is Greg Fedele, and I appear before the Committee representing a growing aviation business focused on many aspects of the industry.

On behalf of the manufacturing industry, I would like to thank Peggy as we appreciate your leadership in promoting aviation safety not only in the U.S. but globally.

Innova Aerospace is headquartered in San Antonio, Texas, and is a niche company in the aerospace industry focused on aircraft modernization, performance enhancement, and life extension, with over 600 supplemental type certificates developed in the past.

Innova Aerospace started with the acquisition of Sabreliner Aviation based in Missouri. The Sabreliner name holds a significant place in aviation history as the world's first twin engine business jet.

Innova has been designing and preparing for certification the world's first all-composite, light single gas turbine powered helicopter, the C630. Originally intended to be certified in New Zealand, we are in the process of moving the program to the U.S. to be certified by the FAA. Overall, Innova Aerospace employs several hundred people in the aviation industry in Missouri, Texas, Colorado, Massachusetts, and Florida.

Innova's main business focus is on modernizing older aircraft. As you are most likely aware, current engine and avionics technology have improved dramatically from what was installed when most aircraft flying today were developed and sold, and need to be replaced or changed to meet FAA requirements, mandates, or for operational reasons. Certification reform can have a positive impact on all these initiatives.

Innova is currently developing two major cockpit retrofits that bring modern technology to the cockpit, and three major engine retrofit STCs. These programs replace the current engines with more environmentally friendly and efficient engines, bringing lower fuel burn, improved maintenance, and longer range to the airplane.

Every opportunity we have in front of us will require an FAA certification approval before we can bring the opportunity to market.

A key priority from Innova's perspective is our ability to deliver products to our customers in a timely and efficient manner.

Utilization of the FAA's ODA process is a way to effectively manage certification programs by leveraging both public and private resources. Today, Innova Aerospace does not hold an ODA. However, to meet our business needs, we have decided to utilize another company with an ODA to better manage schedule for products.

As a small business, our margin of error to schedule is narrow and our customers demand performance. A significant schedule delay and the costs associated can have a significant impact on our business. Use of an ODA allows us to protect our schedule and get our products to market while maximizing the return on our investments.

We have been investigating and preparing for the rigorous application process of becoming an ODA. However, we need to believe that the payback on the investment will be achieved.

Our STC programs address thousands of aircraft flying all over the world. Once certified by the FAA, our products are ready for introduction into the marketplace. While the majority of the aircrafts our products address are U.S.-registered, there are several hundred aircraft all over the world that can be addressed with our modifications.

Our C630 helicopter will receive an FAA Type Certificate and will be marketed all over the world, which will require validated TCs in the countries in which it will operate. The demand for validations of the FAA TC from other countries and turn times can be very long and costly without corresponding safety or operational benefits in many cases.

Innova supports the efforts of GAMA, AIA, and the FAA to work toward a more effective and efficient certification and regulatory process. Innova also supports the certification title passed by the Senate in 2016 as part of the Senate FAA reauthorization bill.

Fully embracing the ODA authorization, driving acceptance of FAA standards in product approvals globally, and ensuring an effective risk-based aviation safety system, we believe these reforms need to be passed by Congress and signed by the President this year to have maximum impact.

Chairman Blunt, Ranking Member Cantwell, thank you for the opportunity to talk about the aviation industry and certification from a small company perspective. Innova's overall vision is that we can create value for aircraft owners and improve the efficiency and safety of their aircraft over the short and long term.

We appreciate your focus on aviation manufacturing and look forward to working with you to bring meaningful change and improve safety, industry competitiveness, and exports.

I would be glad to ask—answer any questions you may have.

[The prepared statement of Mr. Fedele follows:]

PREPARED STATEMENT OF GREGORY J. FEDELE, EXECUTIVE VICE PRESIDENT—CORPORATE DEVELOPMENT, INNOVA AEROSPACE

Introduction

Chairman Blunt, Ranking Member Cantwell, and distinguished members of the Subcommittee, thank you for the opportunity to testify today. My name is Greg Fedele and I appear before the committee representing an aviation business focused on many aspects of aviation, including general aviation, commercial aviation, and

military aviation as an Original Equipment Manufacturer (OEM), a Maintenance Repair and Overhaul (MRO) provider, and an Engineering Services provider.

Innova Aerospace is headquartered in San Antonio, TX and is a niche company in the aerospace industry focused on aircraft modernization, performance enhancement, and life extension. We apply advanced design, technology, engineering, and creative thinking to develop products and services that increase safety and deliver real value to customers. We focus on:

1. Avionics Retrofits/Upgrades
2. Engine Retrofits/Upgrades
3. Aerodynamic Enhancements
4. Structural Life Extension Programs
5. Aircraft Manufacturing

Innova Aerospace started with the acquisition of Sabreliner Aviation. The Sabreliner name holds a significant place in aviation history. The Sabreliner aircraft was first developed by North American Aviation in 1959 as the T–39 Trainer for the U.S. Air Force. In 1963, the Sabreliner was developed into a commercial variant that was the world's first twin-engine business jet. From 1963 to 1986 over 800 aircraft were built, most of them in Perryville, Missouri. After production ceased, Sabreliner continued to support the fleet and several other types of aircraft as a Maintenance, Repair, and Overhaul facility in Missouri. To date, Sabreliner has two Type Certificates, and has developed and owns 282 Supplemental Type Certificates.

In 2015, Innova Aerospace acquired Sierra Industries in Uvalde, TX. Sierra's main focus was as an MRO facility, however, over the past twenty years, Sierra developed and introduced to market 296 Supplemental Type Certificates mainly for performance and enhancement modifications of Cessna Citation jets. However, they also designed and developed many STCs for large commercial aircraft. Sierra has performed Engineering Services helping OEMs certify engines in new and used aircraft. In addition, Innova acquired the SkyPlace Fixed Base Operation (FBO) at the San Antonio International Airport where we perform FBO services along with MRO services for several different types of aircraft. This has become the corporate headquarters for Innova Aerospace. Innova has also recently committed to a large capital investment towards the expansion of aviation related facilities at the airport.

For the past 18 months, Innova has been designing and preparing for certification the world's first all composite light single gas turbine powered helicopter, the C630. Originally designed and developed in New Zealand, the initial intent was to certify the helicopter with the New Zealand CAA, with a shadow program performed by the FAA for validation once the helicopter was certified. Innova made the decision earlier this year to move the program from New Zealand to San Antonio and change our focus to an initial certification with the FAA. The program is in the process of being reconstituted in the US, with an in house and external U.S. team of engineers, designated engineering representatives (DERs), and certification experts with a target date of certification of 2019.

Overall, Innova Aerospace employs several hundred people in the aviation industry in Missouri, Texas, Colorado, Massachusetts, and Florida. We have the distinction of re-engining more jet aircraft than any non-OEM. We are currently leveraging our expertise in avionics, engines, and structures as we invest heavily in several major retrofit STC programs. Innova is committed to long term growth in the aviation industry, has a solid backing to invest in the future, and intends to continue to make additional acquisitions where it will support and strengthen our long-term growth plans.

Modernization of Older Aircraft

As you are all most likely aware, current engine and avionics technology have improved dramatically from what was installed when most aircraft flying today were developed and sold. With the correct care and maintenance, the fuselage of an aircraft can last many decades. However, other aspects of the aircraft need to be upgraded for efficiency, capability, government mandates, and safety. For instance, fuel consumption of older gas turbine engines are not as efficient as what we see today and need to be replaced. The round dial cockpits of yesterday have been replaced in new aircraft with beautiful large glass displays that are more reliable, easier to maintain, and provide much more capability improving safety by increasing pilot situational awareness and reducing pilot workload. Also, older Cathode Ray Tube displays are becoming obsolete and spare parts are becoming more difficult to find, leading to aircraft on ground (AOG) situations due to unavailable parts. Lastly, many aircraft are not compliant with the FAA NextGen mandates

that are quickly coming upon us. Certification reform can have a positive impact on all these initiatives.

Innova is currently developing with our Honeywell/BendixKing partner two major cockpit retrofits that replace obsolete parts, bring modern technology to the cockpit, and satisfy all mandate compliance needs. These are significant investments by both Innova and Honeywell/BendixKing creating STCs for the Beechcraft King Air 90 and the Cessna Citation 560 Series aircraft. We also have plans to expand these products into other aircraft in the near future.

Innova is also working on three major engine retrofit STCs. We currently own an STC to re-engine the King Air 90 with General Electric's H80 engine, and are now modifying that STC for even better performance and ease of installation. In addition, we are working with Williams International to re-engine the Cessna CitationJet and Cessna Citation V and Ultra. These programs replace the current engines with more environmentally friendly and efficient engines bringing lower fuel burn, improved maintenance, and longer range to the aircraft.

The Innova focus on retrofits and modifications will be leveraged from these initial programs to larger business jets, commercial aircraft and military applications. The value we can bring to a customer by extending the life and improving the performance and safety of an aircraft versus acquisition of a new aircraft, is exciting. However, every opportunity we have in front of us will require an FAA certification approval before we can bring the opportunity to market.

Innova's Approach to STCs—ODA Utilization

Another key priority from Innova Aerospace's perspective is our ability to deliver products to our customers in a timely and efficient manner. We have very deep contact with the FAA, through the Flight Standards District Offices (FSDO) that manage and support our Repair Stations, the Manufacturing Inspection District Offices (MIDO) that manage and support our Production Certificates, and the Aircraft Certification Offices (ACO) that manage and support our retrofit and modification projects. Our ability to do business depends on the FAA's timely approval of our design and production systems which manifests in the awarding of Type Certificates and Production Certificates for our new aircraft programs along with Supplemental Type Certificates for our modification programs. We respect the role the FAA plays and we respect the people we work with.

One approach many companies and FAA use to manage certification programs in a more effective and efficient manner is an Organization Designation Authorization (ODA). This has benefits to the FAA and companies by better leveraging both public and private resources. Today, Innova Aerospace does not hold an ODA. However, to meet our business needs we have decided to utilize another company with an ODA to better manage the schedule for our projects. While this may appear to be a costlier approach, our analysis is that by using an ODA, we can limit project delay and costs, and therefore, have decided to trade dollars for schedule certainty. As a small business, our margin of error to schedule is narrow and our customers demand performance. A significant schedule delay and the costs associated can have a significant impact on our business. If the ODA's authorization is not being fully utilized by FAA for our programs, it will impact costs, schedule, and our customers. Furthermore, even if we were not utilizing ODAs in this manner, we recognize the importance of them being effectively used since it will allow FAA to focus more of their resources on small businesses like ours that are trying to move through the certification process.

We recognize the long-term the advantages of an ODA, and for the past two years we have been investigating and preparing for the rigorous application process of becoming an ODA. For us to justify the investment, we need to first achieve critical mass in our programs. The investment is so great, along with the cost to keep the system up and running, that it will take time until we have grown to the point where our own resources and capabilities support an ODA. As a board member of the General Aviation Manufacturers Association (GAMA), I am aware that many manufacturers who have spent significant expense and effort to become an ODA did not see adequate benefits. Industry and the FAA are aware that improvements are needed to take fuller advantage of the system and are working collaboratively to that end. Innova supports intense focus on ODA efficiency. We look forward to working with the Committee on this important issue. If you can help us bring efficiencies through reform, the industry will respond with growth and improved safety technology. If costs can be reduced, and efficiencies enhanced, it would help Innova move towards proceeding to become an ODA which would benefit my and other companies and help FAA increase the effectiveness of their safety oversight.

As I said before, as we are investing in our programs, unforeseen delays can be devastating for several reasons. As for any business, we need to see a return on our

investment as quickly as possible. Delays due to the FAA having limited resources, varying direction, and/or interpretive requirements can significantly lower our return as the revenue from a project is delayed.

Additionally, one of our major programs addresses compliance with an FAA safety mandate. By design, these programs have a shelf-life because we must complete these programs in a time-frame to allow customers to take advantage of our solution for mandate compliance. If our programs were to be delayed beyond a mandate compliance date, there is potential that the investment could be wasted as customers will find other solutions or decide to stop flying the airplane altogether.

Certification in a Global Marketplace

Aviation is an incredibly competitive, global marketplace and first to market is essential for many of our projects. In our industry, there are many ways to solve a problem for our customers. Those who have the idea first should be rewarded. Unfortunately, a good idea can be squandered if the implementation of that solution is not timely. As one solution is being certified, others may enter the market, and for many different reasons may even get to market faster if their certification program is completed more efficiently.

Our STC programs address thousands of aircraft that are flying all over the world. Once certified by the FAA, our products are ready for introduction into the marketplace. While the majority of the aircraft our products address are US-registered, there are several hundred aircraft all over the world that can be addressed with our modifications.

Innova is developing all our modification programs as kits. This approach allows us to ship kits worldwide for installation either at a maintenance shop or in the field. We have designed these kits specifically because we want to make it easier for our customers to take advantage of our products. FAA's international relationships with foreign civil aviation authorities and the establishment of agreements to facilitate efficient processes for acceptance and import of FAA certified products and STCs is paramount to the success of our business and other U.S. companies in the industry.

Our C630 helicopter will receive an FAA Type Certificate (TC). The initial market for the helicopter will be training, tourism, and general utility. As a gas turbine helicopter, the C630 will operate all over the world wherever Jet-A fuel is available. While we expect significant orders from the United States, we are expecting orders worldwide. The demand for validations of the FAA TC from other countries and turn times can be very long and costly. I am not aware of any FAA certified aircraft that has not been accepted or validated by any country in the world, yet even with this safety record, we often face significant delays in getting our projects validated in other countries. This is a high priority for industry and a focus of the FAA and we would appreciate any support you can give us to address these challenges.

Risk-Based Decision Making

In our industry, Safety is the absolute. Anyone who works in this industry knows that accidents and incidents still sometimes happen, however, we do everything in our power to make sure our customers are safe.

I truly believe that as we look to improve the efficiency and effectiveness of the certification process, we need to incorporate risk analysis tools and techniques to inform the level of involvement of FAA's limited resources. We need to drive consistent decision making and eliminate redundant activities throughout the system.

As I discussed earlier, Innova is currently working on a new cockpit upgrade for the King Air 90. This cockpit uses the BendixKing AeroVue system which is an Electronic Flight Instrument System (EFIS). The BendixKing AeroVue system—a commercial off the shelf system—was not specifically developed for the King Air, and has been installed in several other aircraft types. The FAA-approved ODA procedures manual does not require a Project Notification Letter to the FAA for this type of project. This is very good for our program because it means all processes and authorizations are fully delegated to the ODA and that FAA participation is not necessary. Despite all of this, the local FAA office required the ODA to submit an Issue Paper explaining this system which has already been certified on several other aircraft before. The issue paper turnaround time is typically 60–90 days and could be much more which adds delays and uncertainty. The impact to our program is still unknown, but it has added schedule risk. This appears to us as an area where a more effective risk-based safety oversight system would be beneficial and the FAA's time and resources better applied elsewhere.

Where We Would Like To See Reform Go

As a GAMA member, Innova supports the efforts of GAMA, AIA, and the FAA to work towards a more effective and efficient certification and regulatory process.

We believe the development of the ODA scorecard and the Aircraft Certification Service (AIR) transformation initiative, if effectively implemented, will bring real benefits. Innova also supports the certification title passed by the Senate in 2016 as part of the Senate FAA Reauthorization bill. This would help support FAA certification reform by addressing the key issues I have discussed in my testimony—fully embracing the ODA authorization to the benefit of industry and the FAA, directing FAA engagement and leadership with other aviation authorities to help facilitate efficient validation and acceptance of FAA safety standards and product approvals globally, and ensuring an effective risk-based aviation safety system. We believe these reforms need to be passed by Congress and signed by the President this year to have maximum impact.

Conclusion

Chairman Blunt and Ranking Member Cantwell: thank you for the opportunity to talk about the aviation industry and certification from a small company perspective. Innova's overall vision is that we can create value for aircraft owners and improve the efficiency and safety of their aircraft over the short and long term. We anticipate rapid growth as we believe this business model is applicable to all aircraft owners from private aviation to commercial and military. We are excited about the opportunities this brings and becoming a leader in the aviation industry while bringing significant employment opportunities in the future. I value the opportunity to speak to you as a business leader of a growing company that does all its work in a federally regulated system. We appreciate your focus on aviation manufacturing and look forward to working with you to bring meaningful change and improve safety, industry competitiveness, and exports.

I would be glad to answer any questions that you may have.

Senator BLUNT. Or ask them.

Mr. Fedele, thank you for being here.

Senator Hassan.

STATEMENT OF HON. MAGGIE HASSAN,
U.S. SENATOR FROM NEW HAMPSHIRE

Senator HASSAN. Thank you very much, Mr. Chairman.

And thank you to all the panelists for being here this morning and for the work you do.

You know, New Hampshire is the home of a growing aerospace component part industry sector, so I am very grateful for the insight you have provided this morning. I did though want to go back to an issue that I think was touched on by the last panel, but I thought you all might comment on it as well.

I will start with you, Mr. Dillingham. It goes back to the fact that we were talking about improvements we could make in certification, ways we can help our manufacturing folks in this sector see a return on their investment earlier and invest in new technologies. But at the same time, we have been presented with a budget blueprint by the Administration that causes a lot of constituents in my small state of New Hampshire concern.

Specifically, the proposal that we saw and is particularly relevant to today is the Administration's proposal to eliminate a program known as Essential Air Service, or EAS, because, obviously, if everybody in our country cannot have access to aviation services, a lot of what we are talking about becomes less pressing, at least for my constituents.

So the EAS program was designed to ensure rural communities still receive commercial air service even in areas that would otherwise not be profitable for the airlines because of their geographic location. Entire communities depend on this program, which makes travel possible where it otherwise might not be.

The Lebanon Airport in Lebanon, New Hampshire, for example, provides services for 10,000 to 11,000 Granite Staters every year. Without this critical funding source, these passengers would be left with less options, higher ticket prices, and lengthy commutes to other airports.

So, without objection, Mr. Chair, I would like to enter a letter from the Lebanon Airport into the hearing record.

Senator BLUNT. Without objection.

[The information referred to follows:]

LEBANON AIRPORT
West Lebanon, NH, March 21, 2017

Hon. MARGARET WOOD HASSAN,
Washington, DC.

Re: Essential Air Service

Dear Senator Hassan:

The EAS Program provides a subsidy to air carriers providing scheduled airline service to certain airports where scheduled air service has long been in-place and proven to be required for the welfare of the area. The EAS subsidy to air carriers allows carriers to offer much needed service at reasonably affordable prices. Without the subsidy, the airline would pass on the costs to passengers, making use of EAS routes cost-prohibitive. Specifically, the EAS program provides timely, world-wide connection and access to rural areas that would not be possible otherwise. The City of Lebanon, NH and the Upper Valley (central-western New Hampshire and eastern Vermont) realize these benefits daily.

At present, Cape Air is the LEB's only airline. Cape Air provides LEB with 9-seat aircraft and four daily round trips to Boston Logan International Airport; and two daily round trips to Westchester County (White Plains) Airport/New York City. The flight to Boston is 55 minutes and the flight to White Plains is 1:30 and to Manhattan, an additional 1:00. This level of airline access, (only possible with EAS) provides the following to Lebanon and the Upper Valley.

After a 55-minute flight to Boston on Cape Air, we have cost-effective, timely access to:

- 75 domestic non-stop destinations from Boston.
- 54 International non-stop destinations from Boston.
- 84 destinations by Low-Cost Carriers from Boston.

The trip to White Plains/New York City in 2:30 provides cost-effective and timely access for:

- a round trip to the financial capital of the world in one day.

The LEB Airport tracks revenues monthly. The attached table shows the airport's monthly revenues for 2016. If EAS to the LEB Airport were to cease; the following would occur:

- Cape Air would cease service.
- Transportation Security Administration (passenger screening) would leave the airport.
- Our on-airport rental cars (Avis and Hertz would leave the airport.
- As a result, revenue from Air Carrier Landing Fees, Rental-A-Car Fees, current Terminal Building Rent, current Parking Lot Rental (from the rent-a-cars), Air Carrier Fuel Flow Fee would all decrease to $0.00.

We track revenues monthly. This is from CY 2016. The yellow-shaded numbers on the attached table show the revenue accounts that would go to "0" if Essential Air Service to LEB Airport ceased and Cape Air ceased. That would mean:

- An average monthly revenue loss of $37,216.
- An annual revenue loss of $446,592 which would be approximately 52% of our 2016 operating revenue.

Without scheduled passenger service, the LEB Airport would lose our Passenger Facility Charge (PFC) revenue. In 2016 this was $42,685. This has paid the 5% City share of FAA-funded airport improvements for a number of years and would serve

to decrease cost to the taxpayers of more expensive capital improvements for the next number of years.

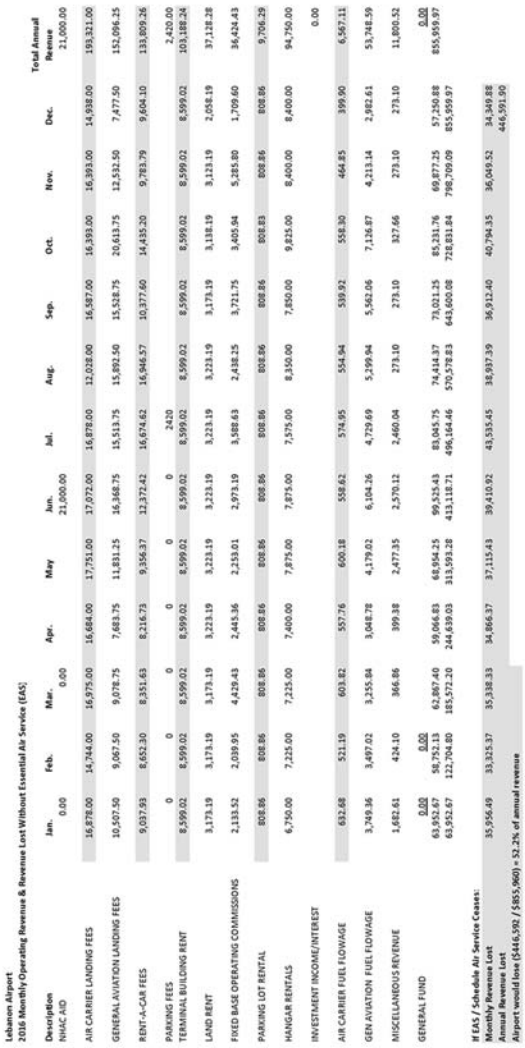
We are in hopes that the initiative to do away with this critical Essential Air Service program is defeated.

Please let us know if you need any further information.

Sincerely,

RICHARD J. DYMENT,
Airport Manager.

encl
cc: Paula Maville, Interim City Manager



Lebanon Airport
2016 Monthly Operating Revenue & Revenue Lost Without Essential Air Service (EAS)

Description	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total Annual Revenue
HVAC AID	0.00		0.00			21,000.00							21,000.00
AIR CARRIER LANDING FEES	16,878.00	14,744.00	16,975.00	16,684.00	17,751.00	17,072.00	16,878.00	12,028.00	16,587.00	16,393.00	16,393.00	14,938.00	193,321.00
GENERAL AVIATION LANDING FEES	10,507.50	9,067.50	9,078.75	7,683.75	11,831.25	16,368.75	15,513.75	15,892.50	15,528.75	20,613.75	12,532.50	7,477.50	152,096.25
RENT-A-CAR FEES	9,037.93	8,652.30	8,351.63	8,216.73	9,356.37	12,372.42	16,674.62	16,946.57	10,377.60	14,435.20	9,783.79	9,604.10	133,809.26
PARKING FEES	0	0	0	0	0	0	2420						2,420.00
TERMINAL BUILDING RENT	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	8,599.02	103,188.24
LAND RENT	3,173.19	3,173.19	3,173.19	3,223.19	3,223.19	3,223.19	3,223.19	3,223.19	3,173.19	3,138.19	3,123.19	2,058.19	37,128.28
FIXED BASE OPERATING COMMISSIONS	2,133.52	2,039.95	4,429.43	2,445.36	2,253.01	2,973.19	3,588.63	2,438.25	3,721.75	3,405.84	5,285.80	1,709.60	36,424.43
PARKING LOT RENTAL	808.86	808.86	808.86	808.86	808.86	808.86	808.86	808.86	808.86	808.83	808.86	808.86	9,706.29
HANGAR RENTALS	6,750.00	7,225.00	7,225.00	7,400.00	7,875.00	7,875.00	7,575.00	8,350.00	7,850.00	9,825.00	8,400.00	8,400.00	94,750.00
INVESTMENT INCOME/INTEREST													0.00
AIR CARRIER FUEL FLOWAGE	632.48	521.19	603.82	557.76	600.18	558.62	574.95	554.94	539.92	558.30	464.85	399.90	6,567.11
GEN AVIATION FUEL FLOWAGE	3,249.36	3,497.02	3,255.84	3,048.78	4,179.02	6,104.26	4,759.69	5,299.94	5,562.06	7,126.87	4,213.14	2,982.61	53,748.59
MISCELLANEOUS REVENUE	1,682.61	424.10	366.86	399.38	2,477.35	2,570.12	2,460.04	273.10	273.10	327.66	273.10	273.10	11,800.52
GENERAL FUND	0.00	0.00											0.00
	63,952.67	58,752.13	62,867.40	59,066.83	68,954.25	99,525.43	83,045.75	74,414.37	73,021.25	85,231.76	69,877.25	57,250.88	855,959.97
	63,952.67	122,704.80	185,572.20	244,639.03	313,593.28	413,118.71	496,164.46	570,578.83	643,600.08	728,831.84	798,709.09	855,959.97	
If EAS / Schedule Air Service Ceases:													
Monthly Revenue Lost	35,956.49	33,325.37	35,338.33	34,866.37	37,115.43	39,410.92	43,535.45	38,937.39	36,912.40	40,794.35	36,049.52	34,349.88	
Annual Revenue Lost												446,591.90	
Airport would lose ($446,592 / $855,960) = 52.2% of annual revenue													

S:\AIR\Admin\[Customer listing> 2016-EAS.xlsx]2016-Actual Summ

Senator HASSAN. Thank you.

And this is not just a concern for New Hampshire. I know Senator Klobuchar touched on it a little bit, but places as well like Montana, Colorado, and Alaska, Americans in rural communities will find it extremely hard to access alternative airports if EAS service is disconnected. Over time, eliminating EAS will kill jobs and hurt commuters and hurt the industry. And I simply do not think we should be balancing the budget on the backs of rural Americans who need access to aviation services.

So, Mr. Dillingham, in your analysis of rural air service, what would the impact of eliminating the EAS program be?

Dr. DILLINGHAM. Thank you, Senator.

We have looked at the EAS program several times over the last few years, and the total elimination of the program will have differing impacts on different airports. But as you spoke, one of the most serious concerns is for those communities, rural communities, small communities where that is the only connection that those communities have to the larger national transportation network, and it could be disastrous in that case.

At the other end of the spectrum, we have also suggested that, should the EAS program be eliminated, it will be very critical to establish other means, other links to link those communities, and not only just for passenger traffic but usually those airports are also very critical to the economic well-being of the communities.

Senator HASSAN. Absolutely. Thank you.

Anyone else like to comment on it, on the panel?

Thank you, Mr. Chair. I yield my time.

Senator BLUNT. Thank you, Senator.

Senator Cantwell.

Senator CANTWELL. Thank you, Mr. Chairman.

To any of the witnesses, this notion of how you keep pace with innovation and yet keep pace with certification without making the FAA 40,000 people, so, I do not know what your thoughts—but obviously, the organization design authorization has been one of those tools, and I do not know if people want to comment on that. But obviously, we want to utilize it but at the same time make sure that we are enhancing safety. But I just keep thinking about, for example, where we were with composites, and we used the integration of outside research and development as well I think in helping to advise the FAA.

So anyway, anybody have thoughts on where we go again with keeping pace with innovation?

Ms. GILLIGAN. If I may?

Senator CANTWELL. OK.

Ms. GILLIGAN. First, we will take 40,000 people, but if not, you are right, we need some alternatives, and I actually would like to ask Ms. Baker to give you some details.

But I think you have heard that we are transforming the aircraft certification organization, and we call it that because this is not a sort of minor rejiggering of some processes. We have done a lot of that. We have fixed individual processes. We have addressed individual concerns. But we have realized that we really do need to take a whole new look at how we provide these certification services.

So if I could ask Ms. Baker to walk you through very quickly what we are doing, and we would love to come and brief you or your staff in more detail.

Ms. BAKER. Thank you.

One of the things that I think really helps us get started on opening the doors for innovation is to do something like we did with Part 23, which Congress was very instrumental in helping us to get through. It allows us to have performance-based rules rather than prescriptive, so it leaves it open for innovation. And then we use industry standards where we can get the means of compliance much more easily and not have to go through the regulatory process to get there.

To even further innovate, what we have been doing is thinking about our organization and how we can align it functionally. One of the things that we decided to do was to designate a division called "policy and innovation" where the people in that division would be reaching out to industry and think tanks and any opportunity that we can have to understand what is coming.

We talked about additive manufacturing. 3D printing was something you could see on the horizon. It is going to reduce the cost of aviation. It is going to make things lighter. It is something that we should get ahead of instead of waiting for someone to have it in their design and then walk in the door with an application.

Senator CANTWELL. Thank you.

Mr. FEDELE. I will just add, as the manufacturer, from the manufacturer side, two things.

One, as I talked about in my testimony, truly embracing the full ODA authorization program, any time that we can limit the FAA resources and delegate out, use the full delegation, will speed the process.

The other thing is we have talked about, in the transformation program, about risk-based decisionmaking. We need to start really utilizing risk-based tools to analyze what resources we actually need to put toward the projects.

At the end the day, safety is ultimate. I mean, we will never compromise on that. But there are ways we can be more effective and efficient in the way we do things.

Senator CANTWELL. Well, I hope that—I do not want us to fall behind where, say, the Europeans are. I want us to be the innovators and continue to have a process that allows us to innovate. I know I had this experience walking through one of our training programs. We had gotten an air—now I cannot remember the exact terminology. But it was about training more people in air transportation jobs, part of the Department of Labor.

But when we were walking through, we saw some of the students working on wood, and we said, why are you working on wood as opposed to other types of metals or composites? And they said, well, it is because the FAA still requires this level and this certification on wood.

So maybe that has come and gone now. I do not know for sure. But I just hope that we can figure this out.

And I do like the universities and other organizations advising the FAA on the latest and greatest technology, because I think that is a way for them to understand some of the dynamics.

But anyway, we are very proud of aviation manufacturing in the United States. We want to stay very competitive in it.

Mr. Fedele, I definitely want us to have the safety standards that are the pride of the aviation world, and I think this is a calling card for the U.S.

But I think the challenges are becoming more real because there is such a great—let me even take the biofuels area. We definitely want to stay ahead on that as well.

So I thank the witnesses.

Thank you, Mr. Chairman.

Senator BLUNT. Thank you, Senator Cantwell.

Dr. Dillingham, did you want to say something on that?

Dr. DILLINGHAM. Thank you, Mr. Chairman.

I just wanted to respond to Senator Cantwell's original comment about composites, because the GAO led a study that looked at composites on the Dreamliner. And at that point in time, there were concerns about whether FAA, indeed, had the skills to oversee that kind of new technology. And we followed up on that and found that FAA has really gone into a full court press in terms of that kind of—making sure they have that kind of expertise, and as you said, bringing in universities, developing training plans for the workers, strategic plans for all kinds of new technology.

So the recommendations we made in that area, FAA has met those recommendations. So we would say that they are definitely on the cutting edge.

In addition, we all know that FAA has some of the smartest people in the world in some areas, and they are really trying to keep up with the new technologies as well.

Senator CANTWELL. Thank you. I appreciate that. I do think the center of excellence that we have been establishing at the FAA, which is that partnership between universities and the FAA and businesses to look at those emerging technologies, has been a very, very helpful tool, so I think we should keep that in mind with what Ms. Gilligan was saying about resources and people.

Thank you, Mr. Chairman.

Senator BLUNT. Mr. Fedele, in your submitted testimony, you cited an incident where you needed to get an issue paper done on an electronic flight information system that had already been certified on several other aircraft.

Do you think that was necessary?

Mr. FEDELE. No, we do not believe that was warranted. The system we were installing, it is currently installed in other aircraft and new build aircraft that are coming off the line today. It has been certified on many different airplanes. It has a long pedigree.

Our project did not require what is called a project notification letter from the ODA, so what that really means is it was fully delegated to the ODA to run the program, run the certification program.

This now brings the FAA back to having to put resources into the project, which will lead to delays, hopefully not too much, but their involvement is now there. And we will move quickly through it, but it is something that we did not feel really we should have had to have done.

Senator BLUNT. Your point is that it had already been certified, the exact same system, to go into other aircraft? Is that——

Mr. FEDELE. Correct. The hardware, the electronic hardware, the glass panels, are already in other airplanes. So to us, it is, OK, why now?

Senator BLUNT. Ms. Gilligan, do we need to give you more authority in this area, or is there a reason here that Mr. Fedele and I don't quite understand?

Ms. GILLIGAN. Senator, I do not think we need more authority. We did see the reference in Mr. Fedele's testimony, and we are trying to track back to see just what it is.

But I would make the comment, and I know Mr. Fedele would agree, that certification of a system in a particular make and model of aircraft does not mean that the same system will work in all makes and models. And there is a requirement that they be able to demonstrate, when you want to put it in a different make and model of aircraft, that, in fact, it meets those standards. And I believe that is a piece of the issue that was involved here.

I do not know if Dorenda wants to comment further, but we are looking to see if there is something that we should have done differently. And if not, we will be sure to explain why we believe that that was a necessary step.

But, Dorenda, if you would like to comment?

Ms. BAKER. I do not have much to add, but I did talk to Mr. Fedele before the hearing, and I felt that we should get a few more details before we can determine what exactly happened in this particular case.

Mr. FEDELE. And we will work with them to get the full details of why we were asked to do it. Hopefully, we can get an answer to you.

Senator BLUNT. And you will get back to us on how this works out?

Ms. GILLIGAN. Oh, yes, Senator. Of course. And it also is really a process that, with the new organizational structure, we are looking at how we can make sure that these kinds of issues are elevated, if necessary, early enough in the process that, if there is to be a change, it can be made. Or if there is an explanation or rationale that needs to be provided to the applicant, that that can be provided as well.

But, yes, we will look into this and be sure to inform you with outcome.

Senator BLUNT. And Ms. Gilligan mentioned, Mr. Fedele, what they were doing with Brazil and other countries. Any thoughts you have on what we can do to more adequately make sure certification of other countries is quicker for things that we have already certified?

Mr. FEDELE. Overall in our experience, we found that many foreign airworthiness authorities, they do not necessarily have the technical expertise in certain areas, and that is a challenge.

At the end of the day, the FAA is the gold standard in the world. This is important because, for us, we see exports as a way of growth, and we need to leverage our investment.

We have been in discussion with many of our peers in the industry, and we have heard about the struggles they have to take these

products outside the U.S. The challenges we face are when foreign authorities want to recertify the entire project. This can be very expensive. It is redundant and has little-known value. And we know of no time that an FAA-certified product was turned down by a foreign authority.

To be clear, we recognize that foreign authorities have their own different requirements and risks that they want to address. We understand and welcome that, but we need to focus on eliminating the redundant and unnecessary review.

Senator BLUNT. And I think we see cooperation from Ms. Gilligan with these other countries trying to achieve that.

Ms. GILLIGAN. Absolutely, Senator. We could not agree more. We do believe that certification by the FAA should be sufficient for many of our partners to simply do what we call validation, to confirm for themselves that we have, in fact, found compliance with the standards but not to repeat the work.

We have made great strides with our European partners and with our Canadian partners. We are just about there with our Brazilian partners. But those three states, like the U.S., have been major manufacturing states for a long time. We do see new states that are trying to elevate their competence in this area. But we are always interested in working closely with our manufacturers to support them and assist them in those validations.

We believe that our partner countries should come to the FAA, if they believe there is a question or issue about the validation of a product.

Senator BLUNT. Well, thank you.

Senator Duckworth is here to ask questions, and I am going to let her gavel out and give the proper notice at the end of the hearing and, again, thank all of you for attending.

Senator Duckworth.

STATEMENT OF HON. TAMMY DUCKWORTH, U.S. SENATOR FROM ILLINOIS

Senator DUCKWORTH [presiding]. Thank you, Mr. Chairman. I want to thank both the Chairman and the Ranking Member for convening this important hearing to examine how we can enhance our airport infrastructure and strengthen American aviation manufacturing.

I proudly represent the state of Illinois, home of Chicago O'Hare International Airport, one of the busiest airports in the world, along with Midway, Quad City, and other vital airports. And I understand how important it is for our Nation to invest in our airports to make sure we can move both people and goods effectively and efficiently.

I am also very aware of how important airports are to the local economy, having represented in my congressional district the area outside of O'Hare, and that is an issue I would like to address this morning.

Mr. Dillingham, would you concur that airports are important to surrounding communities' economies?

Dr. DILLINGHAM. Absolutely, Senator. I think in almost all occasions, the airport is an economic generator for both business as

well as bringing the communities together and tying those communities to the larger transportation network of the country.

Senator DUCKWORTH. Thank you. I do agree that airport infrastructure is a win-win for American aviation manufacturers, the tourism industry, and just general job creation.

I also want to make sure that, if we bolster investment in our airports, we use that opportunity to strengthen our small businesses as well. I strongly support the Airport Improvement Program's Disadvantaged Business Enterprise Program. This incorporates a 10 percent goal for DBE firms to participate in airport procurement, capital improvement, and concession contracts.

I am very concerned that some may seek to weaken or even eliminate this critical small business program during the upcoming FAA reauthorization.

I would like Mr. Dillingham and Mr. Fedele—did I pronounce that correctly?

Mr. FEDELE. It is Fedele, but you are not the first or the last.

Senator DUCKWORTH. I am sorry. My last name is "Duckworth."

So, Mr. Dillingham and Mr. Fedele, would you each be able to speak to the importance of small businesses in supporting airport operations, concessionaires, and the like, and how small businesses can be used to enhance the traveler experience while supporting local job creation?

Dr. DILLINGHAM. Oftentimes, small businesses are the businesses that provide services to the airports either through the concessions or the opportunities that are surrounding the airport. So they are a very critical element of the support for airports.

What we are finding is sort of non-aeronautical revenues are becoming an increasingly important source of revenue for airports, and those sometimes are operated by small businesses.

So, again, it is a very critical element both for the community as well as resources for the airports. And airports, in turn, can use those resources for infrastructure construction.

Senator DUCKWORTH. Very interesting. So actually, revenue from the small business DBEs are actually helping with vital infrastructure projects to keep the planes running.

Dr. DILLINGHAM. Absolutely, as part of the non-aeronautical revenues, the revenues that they do not get from the planes landing and taking off, it is an increasingly large share of the revenues that airports are using or have available to them.

Senator DUCKWORTH. Thank you.

Mr. Fedele?

Mr. FEDELE. So I have a slightly different take on that. We are a small business. We have our main location in San Antonio, Texas, right on the other side of the airport from the commercial side, and we have just partnered with Customs and Border Protection to build a Federal inspection station at the airport. We partnered with them. We built the building.

Now, when it opens in the next month or so, general aviation traffic will not have to go get in line with commercial traffic to clear Customs. They will actually come to the other side of the field.

And that is something we, as a small business, did to invest in the airport. And as part of our agreement with the airport, we will

be making other major investments in the airport infrastructure to help bring jobs on the general aviation side.

Senator DUCKWORTH. Great. I am glad you brought up general aviation. My next question is going to be more on general aviation, which is, according to a recent FAA report on the economic impact of civil aviation to the U.S. economy, civil aircraft manufacturing was America's top net exporter, with a positive trade balance of almost $60 billion in 2014. U.S. aviation manufacturers such as Boeing continue to produce technologically advanced products that create high-quality jobs here in our country and fuel the growing demand for aircraft all around the world.

Despite their best efforts to stay ahead of the competitive international market, U.S. manufacturers continue to face delays from international civil aviation authorities when seeking validation of FAA approved certificates. While I appreciate FAA's initiatives with Transport Canada, the European Aviation Safety Agency, and others to improve the validation process, delays persist even with countries with which we have bilateral aviation safety agreements.

Ms. Gilligan, how would you assess the success of some of these bilateral agreements, given the challenges faced by U.S. aviation manufacturers? And what the FAA specifically—what is it specifically doing to improve their effectiveness?

Ms. GILLIGAN. Thank you, Senator, and thank you for acknowledging that we have made great headway with our more mature partners in Europe, Brazil, and in Canada.

What we do see around the world are emerging aviation authorities that want to build their competency at being able to evaluate that products they are taking into their aviation system meet an appropriate level of safety. So we are encouraged, in fact, that, in some regards, they are becoming more informed and more capable.

But we do see where sometimes they ask for more information and more verification of the work that FAA has already done than we think is appropriate. In those cases, we reach out directly to our partner to explain how they can take advantage of the work we have already done and minimize the amount of resources that they may need to apply to the project as well.

And we have been very successful, in many circumstances. But there are still some cases where we are struggling. Right now, the Boeing 737 MAX is a project that we have focused on with our Chinese partners.

Ms. Baker was in China just a few weeks ago to make sure that that project was moving along, so I would like to ask her to comment on how we handle that kind of example, as you just asked.

Senator DUCKWORTH. Ms. Baker?

Ms. BAKER. Thank you.

First of all, I will take it out to a much more general situation. We work with 10 partners in the Asia-Pacific region, and we have convened a group called the Asia-Pacific Bilateral Partners, and I will be meeting with all of them next week in Long Beach, California.

What we did was with them is to charter a group that looked at the risk. If it is a mature thorough authority, a mature technology, and a mature company, there should be very, very little intervention by the other authority into work that the FAA has done.

And on the other end of the spectrum, where there is an emerging authority, of course, everybody recognizes there needs to be more intervention.

So what we have done is propose a spectrum and taken it up to ICAO to propose as a best practice for everyone to use.

For the Boeing 737 MAX, I was in China and I talked to them about the certification of that aircraft and now their validation, and they will be meeting with us in Seattle, Washington, the second and third week of April. What I will be doing is going out there to meet with the team and the equivalent of me in the Chinese authority to ensure that this program keeps moving forward.

So that is the kind of action that we take when we know that there needs to be a little bit more emphasis on the progress of the program.

Senator DUCKWORTH. Thank you so much.

And I have no other colleagues here, and I have gone way over my time, but I guess that is the advantage of having the gavel. As a freshman, it is kind of interesting to do this.

So let me just say that the hearing record will remain open for 2 weeks. During this time, Senators are asked to submit any questions for the record. Upon receipt, the witnesses are requested to submit their written answers to the Committee as soon as possible.

I would like to thank the witnesses for your time and preparation for this on this very important issue and again extend my thanks to the Chairman and Ranking Member for convening this hearing.

Again, thank you, and the hearing is now adjourned.

[Whereupon, at 11:57 a.m., the hearing was adjourned.]

A P P E N D I X

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DEB FISCHER TO RHONDA K. HAMM-NIEBRUEGGE

Question 1. How would you address the very serious concern that a PFC increase places a higher burden on passengers from rural and smaller communities in our country, who often have to fly multiple-leg journeys to get to their destination? Ultimately, rural Americans would pay higher PFC's than Americans living near large-city airports with many direct flights.

Answer. Increasing or eliminating the PFC statutory cap to fund much needed airport safety, security, and capacity infrastructure projects does not necessarily mean that rural Americans would pay higher PFCs than those living near large-city airports. First, just because the PFC statutory cap is increased or eliminated does not mean that airports, particularly large and medium hub airports that serve connecting passenger, will increase the PFCs they charge. Hub airports compete with each other for passengers and service. If St. Louis were to raise its PFCs too high, it would lose connecting passengers to perhaps Chicago Midway or DFW. Eventually, once enough connecting passengers begin to avoid St. Louis, airlines will reduce or eliminate service through St. Louis and use other less expensive hubs. And for hub airports, losing a passenger is more than just losing the PFC income from that passenger; it also means losing concession revenue and, ultimately, risking the reduction or loss of airline service.

Second, while PFCs are included in the ticket prices, it does not mean that higher PFCs result in higher ticket prices. Airlines compete with each other, and price their tickets pragmatically, based on what the market will bear. A higher or lower PFC at any particular airport does not mean a correspondingly higher or lower ticket price. This was most vividly demonstrated in 2011 when the Federal Aviation Administration budget authority expired and with it, also the authority for airlines to collect excise taxes on tickets. From July 22 until August 7 of that year, the airlines did not collect excise taxes. But, for the most part, ticket prices did not change. Instead, as it was widely reported at the time,[1] most airlines simply raised the "air fare" component of the ticket price by roughly the same amount that they would have remitted to the Federal Government had the excise taxes not expired. In other words, the market price of tickets did not change; the airlines continued charging what the market would bear and pocketed the tax savings. As airlines compete with each other, through different hubs, the prices they charge for tickets are a function of the other choices passengers have, not the level of PFCs at different airports.

Lastly, increasing or eliminating the PFC cap would directly benefit passengers at smaller, rural airports in Nebraska and elsewhere. Providing new funding resources would allow hub airports that are currently space constrained to build new essential facilities, including new gates, which, in turn, should lead to more air service options to a wider variety of destinations.

All of these factors suggest that higher PFCs would not necessarily impose an undue burden on travelers from rural America. On the contrary, having a mechanism to fund much needed airport infrastructure projects should benefit the entire Nation and all passengers alike—both rural and urban.

Question 2. Ms. Hamm-Niebruegge, last year in the Senate FAA bill, I advocated for expanding the critical resources provided by the Airport Improvement Program. Although the extension bill did not include these provisions, I was pleased that it included provisions to protect the AIP funding for small airports like Scottsbluff, Nebraska. Fortunately, our Airport and Airways Trust Fund faces a surplus, something not many areas of our government can say. Can you please tell us how important it is that Congress continue to support a robust AIP program for all airports across our country?

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[1] *See e.g.,* Jane Engle, *Airline ticket tax holiday is windfall—for airlines,* L.A. Times, July 23, 2011; *and* Joe Sharkey, *A Bonanza for Airlines as Taxes End,* N.Y. Times, July 25, 2011.

Answer. As you know, the Airport Improvement Program provides Federal grants to airports for projects that enhance safety, capacity, security, and address environmental concerns. The program has a proven, decades-long record of success. It is funded entirely by users of the aviation system through various taxes that are deposited into the Airport and Airway Trust Fund. No general fund revenues are appropriated to fund the program.

AIP grants are of critical importance to airports of all sizes, but play a crucial role in funding infrastructure upgrades at smaller airports that often are limited in their ability to raise revenue and access capital markets to finance necessary improvements.

The distribution of AIP funds among national system airports is based on a combination of formula apportionments (often referred to as "entitlements") that take into account the number of passengers and amount of cargo at each airport, and discretionary grants that FAA awards for selected eligible projects. Under current law, whenever the program's total annual appropriation is $3.2 billion or more, the amount of entitlement grant funding distributed to all primary airports is doubled, and non-primary airport entitlements are created from state apportionments. Also, since 2000, large and medium hub airports that collect PFCs have had their AIP entitlement funding reduced—if collecting a PFC of $3 or less, by 50 percent; if collecting a PFC of $4 or $4.50, by 75 percent. Most of these reductions are then redistributed to smaller airports.

I am a strong advocate for reauthorizing a robust AIP program that will benefit all airports. The airport I manage in St. Louis, Missouri, relies on the great network of airports served by our airlines, including small Essential Air Service airports in Arkansas, Illinois, Kentucky, Missouri, and Tennessee. Without spoke airports like the Western Nebraska Regional Airport in Scottsbluff, Nebraska, hub airports like St. Louis would not exist as they are today.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. DEB FISCHER TO BOB MONTGOMERY

Question. How would you address the very serious concern that a PFC increase places a higher burden on passengers from rural and smaller communities in our country, who often have to fly multiple-leg journeys to get to their destination? Ultimately, rural Americans would pay higher PFC's than Americans living near large-city airports with many direct flights.

Answer. We could not agree more. In my testimony, I included ten reasons for why Southwest Airlines opposes an increase in the Federal PFC cap. In short, there's simply no good reason to raise our Customers' tax and free burden considering commercial airports have sufficient financial resources to meet their capital needs.

Regarding small and midsized communities, the empirical evidence is clear—higher fares destroys air service in those communities. A PFC increase would represent a fare increase because, per DOT rules, we have to embed the PFC increase in our advertised fares.

Because there tends to be fewer nonstop flight options for consumers at small and midsized airports, our Customers in those communities often are required to connect through a larger station to get where they want to go. So those Customers are often paying the PFC four times based on typical roundtrip itinerary.

Moreover, at Southwest, we fly exclusively Boeing 737s. To be successful, at a minimum, we need to fill a 737 with paying Customers a few times a day at any airport we serve. This can be challenging in smaller markets. So, for example, say St. Louis doubles its PFC. Then that's a fare increase in Wichita, Kansas, or in Panama City, Florida, or in Omaha, Nebraska—all cities with nonstop flights to St. Louis. We do not want to raise ticket prices, especially in those smaller markets where large-plane service is harder to sustain.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. TODD YOUNG TO BOB MONTGOMERY

Question. I had the distinct pleasure to meet with four of Indiana's airport authorities from Indianapolis, Fort Wayne, South Bend, and Evansville this week. The availability of revenues from the Airport Improvement Program and Passenger Facility Charges ensure Hoosier airports are able to invest in needed infrastructure, maintain competitiveness, and ensure passenger safety. In fact, these two programs are part of the reason why Indianapolis International was awarded the Best Airport in North America six of the last seven years. Mr. Montgomery, we all recognize

these PFC fees result in higher ticket costs, especially for passenger with multiple flight legs. Could you speak to any scenarios in which you could potentially support minor increases in the PFC? Are there proposals where airport users, including passengers and airlines, could have more of a seat at the table concerning how PFC revenues are spent? Are there ways in which we can better notify passengers of PFC fees and the direct investment they have for airport infrastructure?

Answer. Thank you for your question. It is a good one. In my testimony, I included ten reasons for why Southwest Airlines opposes an increase in the Federal PFC cap. Those reasons include the fact that airline tenants at an airport literally have no seat at the table when an airport decides to increase the PFC or use scarce PFC revenues for a project. Today, we only comment as to whether a project is PFC-eligible. And, the Federal eligibility criteria are quite broad.

Second, in 2012, DOT began requiring airlines to hide all government-imposed taxes and fees into the price of an airline ticket. Overnight, advertised ticket prices increased somewhere in the range of 15 to 30 percent. This DOT regulation—called the Full Fare Advertising Rule—has clearly resulted in the airlines "digging in their heels" to oppose any proposed tax or fee increase on our Customers.

Finally, towards the end of the hearing, there was a discussion about the 1982 grandfather clause to the FAA's anti-revenue diversion rule. Today, because of this 25-year old grandfathering provision, over a dozen commercial airports divert nearly $1 billion in airport funds collectively to finance non-aviation programs. Until this loophole is closed, airlines will be hard pressed to support any new government-imposed tax or fee on our Customers.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. DEB FISCHER TO
PEGGY GILLIGAN

Question. Duncan Aviation, located in Lincoln, Nebraska, is the largest family-owned maintenance, repair & overhaul (MRO) in the world. However, inconsistent interpretation of regulatory compliance by the FAA regional offices has placed serious burdens and delays on Duncan and other general aviation manufacturers. Last year, my office worked with Ducan, GAMA, and the Commerce Committee to include language in the Senate FAA bill. How is the FAA working to ensure consistency in interpreting regulatory authorities across its regional offices?

Answer. The Flight Standards Service (AFS) and Aircraft Certification Service (AIR) launched the Regulatory Consistency Communication Board (RCCB) in March 2017. The RCCB is the result of recommendations made by the Consistency of Regulatory Interpretation Aviation Rulemaking Committee (ARC). The ARC recommended the FAA establish the RCCB to provide clarification to internal and external stakeholders on questions related to the application of regulations. The RCCB consists of members from AFS, AIR, and the FAA Office of Chief Counsel, who review and resolve the issues submitted to the RCCB. Issues related to lack of consistency across AFS and AIR offices would fall under the purview of the RCCB.

Order 8000.70, Regulatory Consistency Communication Board (RCCB), describes the roles and responsibilities of the RCCB, including how to submit issues. To assist external stakeholders in their submissions, the FAA created an online submission form that supports anonymous submission. More information on the RCCB, including the online form to submit topics to the RCCB, can be found at *https://www.faa.gov/regulations_policies/faa_regulations/rccb/*

To proactively help reduce the possibility of inconsistencies in the future, Order 8000.96, Flight Standards Guidance Document Development, was published January 2016. This order clearly describes the role of policy documents within a regulatory scheme and provides an outline for drafting policy documents that support existing regulations and are easy to understand.

Also, to reduce the possibility of inconsistency, AFS reviewed its existing policy documents in 2015. The intent of this review was to cancel documents that were redundant or out of date. As a result of this review nine percent of Advisory Circulars and orders were canceled.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DEB FISCHER TO
GERALD L. DILLINGHAM, PH.D.

Question 1. In your testimony, you provided a generally positive overview of the FAA's progress in addressing the concerns raised by industry stakeholders as it relates to the certification process. Are there any areas of particular concern that GAO has with the FAA's implementation of recommendations to enhance regulatory consistency and the certification process?

Answer. As noted in our written statement,[1] we previously found that FAA's organizational culture was a primary challenge for successfully implementing the certification process and regulatory consistency initiatives. We also found that cultural shifts for FAA staff were necessary in how regulations, policy, and guidance are applied, and ultimately how certification and approval decisions are made. FAA's Aircraft Certification Service (AIR) established an organizational performance division, with dedicated staff, to facilitate change management and cultural shifts. In March 2017, FAA officials emphasized that for the AIR transformation to succeed, industry has to forgo past perceptions about negative experiences with FAA inspectors and engineers on certification issues. FAA officials told us that the success of the transformation will depend, in part, on industry's buy-in, engagement, and recognition that they are a key part of the cultural shift. FAA officials emphasized that for the AIR transformation to succeed industry also has to commit to change. FAA and industry must hold themselves accountable to building a compliance culture within their organizations and engaging in constructive dialogue to resolve issues at the lowest level possible.

Question 2. Dr. Dillingham, in your testimony you talked about industry stakeholders being concerned that the FAA is more focused on completing recommendations, or checking the boxes, than ensuring there are substantial improvements to the certification process. You followed that by saying the FAA is reaching out to stakeholders to update them on the agency's progress. Would you please elaborate on the means and frequency by which the FAA is updating industry stakeholders on the progress it is making?

Answer. As noted in our written statement,[2] FAA has been more active in communicating its work on these initiatives, both by meeting with industry representatives to update them and by involving industry groups in various activities to complete the initiatives. Aircraft Certification Service (AIR) officials told us, and industry stakeholders confirmed, that AIR has conducted numerous briefings to industry stakeholders on the status of the certification process initiatives and the realignment/transformation effort. AIR is working with industry to charter an organization designation authorization Scorecard Continuous Improvement Team—which will include FAA and industry representatives—to conduct analyses of the scorecard data across each year and consider recommendations/options for continually improving areas of the certification process. Recently, the Los Angeles Aircraft Certification Office manager created a team and partnered with the General Aviation Manufacturers Association and the Aerospace Industries Association to rewrite the 2004 FAA and Industry Guide to Product Certification, which contains a description of the purpose and vision of the certification process and an overview of the product certification phases. AIR also periodically updates and publishes its implementation plan for the Certification Process Committee recommendations to show the status of each initiative.

Question 3. Dr. Dillingham, one idea that is frequently brought before this committee is that technology is evolving rapidly, and government is having a difficult time keeping up. This appears to be one of the concerns you stated GAO heard from industry stakeholders when reviewing the Aircraft Certification Service transformation process. Do you believe the recommendations given to FAA will allow for flexibility in the Aircraft Certification Service's rulemakings as new technology is developed?

Answer. Yes, to the extent that FAA fully implements the recommendations from the Future of Aviation Advisory Committee (FAAC)[3] and the Certification Process Committee,[4] it will allow for flexibility in FAA's rulemaking as new technology is developed. Often when new technologies are part of a certification project, FAA uses special conditions to evaluate that technology. For example, FAA applied five special

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[1] GAO, *Aviation Certification: FAA Has Made Continued Progress in Improving Its Processes for U.S. Aviation Products,* GAO–17–508T (Washington, D.C.: March 23, 2017).

[2] GAO–17–508T.

[3] In 2010, in response to these and other challenges, DOT established the FAAC to develop a manageable, actionable list of recommendations for DOT. In April 2011, the FAAC released a report outlining 23 recommendations in five areas: environment, financing, competitiveness and viability, labor and workforce, and safety. GAO was asked to review the status of DOT's efforts to implement the FAAC recommendations. GAO examined 10 of the FAAC's 23 recommendations. For more information see GAO, *Aviation: Status of DOT's Actions to Address the Future of Aviation Advisory Committee's Recommendations,* GAO–13–657 (Washington, D.C.: July 25, 2013).

[4] The Certification Process Committee is one of two aviation rulemaking committees that FAA chartered as required by the 2012 FAA Modernization and Reform Act. Both committees made recommendations to FAA, and the Certification Process Committee recommendations are being address by FAA's Aircraft Certification Service.

conditions to the certification of the Boeing 787 Dreamliner for composite structures (see GAO–11–849).[5] At some point, some special conditions become the subject of rulemakings in order to codify them as regulations. Both the FAAC and the Certification Process Committee have recommended that FAA improve its rulemaking process. The FAAC recommended in 2011 that FAA prioritize its rulemaking program, and the Certification Process Committee recommended to FAA in 2012 that the Aircraft Certification Service (AIR) undertake a review of the continued operational safety and rulemaking processes and implement reforms necessary to improve efficiency, including fast tracking the rulemaking process to update airworthiness standards in cases where special conditions have been used for a period of time and the design is no longer new and novel.[6] In response to both recommendations, FAA developed a rulemaking prioritization tool. This tool considers special conditions and updating airworthiness standards per the FAAC recommendations. AIR adopted the rulemaking prioritization tool to update airworthiness standards for special conditions in September 2014.

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[5] GAO, *Aviation Safety: Status of FAA's Actions to Oversee the Safety of Composite Airplanes,* GAO–11–849 (Washington, D.C.: September 21, 2011).

[6] FAA issues special conditions to address novel or unusual design features during the aircraft certification process. A special condition is a regulation that applies to a particular aircraft design. FAA issues special conditions when the airworthiness regulations for an aircraft, aircraft engine, or propeller design do not contain adequate or appropriate safety standards, because of a novel or unusual design feature. 14 C.F.R. § 11.19.