

PUTTING U.S. AVIATION AT RISK: THE IMPACT OF THE SHUTDOWN

(116-2)

HEARING
BEFORE THE
SUBCOMMITTEE ON
AVIATION
OF THE
COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES
ONE HUNDRED SIXTEENTH CONGRESS
FIRST SESSION

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FEBRUARY 13, 2019
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Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC 20515

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FEBRUARY 8, 2019

SUMMARY OF SUBJECT MATTER

TO: Members, Committee on Transportation and Infrastructure
FROM: Staff, Subcommittee on Aviation
RE: Subcommittee Hearing on “Putting U.S. Aviation at Risk: The Impact of the Shutdown”

PURPOSE

The Subcommittee on Aviation will meet on Wednesday, February 13, 2019, at 10 o'clock a.m., in HVC 210 of the Capitol Visitor Center to hold a hearing titled, “Putting U.S. Aviation at Risk: The Impact of the Shutdown.” The hearing will gather stakeholder perspectives on how the recent 35-day partial shutdown of the Federal Government impacted Federal Aviation Administration (FAA) functions and operations, as well as the U.S. aviation industry and workforce. The subcommittee will hear testimony from the Association of Flight Attendants (AFA), General Aviation Manufacturers Association (GAMA), National Air Traffic Controllers Association (NATCA), Professional Aviation Safety Specialists (PASS), and Airlines for America (A4A).

OVERVIEW

The FAA is the Federal agency responsible for ensuring the safe and efficient operation of the National Airspace System. During the recent 35-day partial shutdown of the Federal Government¹—the longest in U.S. history—due to a lapse in appropriations, between 30 and 40 percent of FAA employees were furloughed,² challenging the agency’s ability to fulfill this critical mandate. Thousands of safety-critical FAA employees, including more than 14,000 air traffic controllers and a limited number of aviation safety inspectors and technicians, worked during the shutdown without compensation.³ In addition to impacts on the FAA workforce, the shutdown negatively affected the U.S. aviation industry, including airlines, general aviation, airports, manufacturers, and passengers.

SHUTDOWN IMPACTS ON FAA WORKFORCE

Air Traffic Controllers. More than 14,000 controllers worked during the shutdown without pay.⁴ During the shutdown, controllers in the busiest U.S. air traffic facilities worked overtime—as much as 60 hours per week.⁵ Controllers handle, on average, more than 40,000 flights daily, across 29 million square miles of airspace.⁶ Yet, according to NATCA, while controllers were performing their safety-critical respon-

¹ Due to a lapse in Federal spending, a partial shutdown of the Federal Government occurred, from December 22, 2018, to January 25, 2019.

² See DOT, *Operations During a Lapse in Annual Appropriations Plans by Operating Administration*, at 3 (Dec. 2018), <https://cms.dot.gov/sites/dot.gov/files/docs/mission/budget/328471/consolidated-december-2018-shutdown-plan-final.pdf> and revised on Jan. 11, 2019, <https://www.transportation.gov/sites/dot.gov/files/docs/mission/budget/328471/usdot-consolidated-december-2018-shutdown-plan-01-11-19-red-line.pdf>.

³ Id.

⁴ Figure provided to committee staff by the FAA on Dec. 21, 2018.

⁵ See Letter, Air Traffic Controllers, Pilots, Flight Attendants Detail Serious Safety Concerns Due to Shutdown (Jan. 23, 2019), available at https://www.natca.org/Images/NATCA_PDFs/Publications/20190123-AFA-ALPA-NATCA-Joint-Statement-FINAL.pdf.

⁶ See FAA, Air Traffic by the Numbers, https://www.faa.gov/air_traffic/by_the_numbers/ (last visited Feb. 4, 2019).

sibilities, some were concerned about when they would receive their next paychecks and how they would pay expenses.⁷

According to NATCA, controller staffing at FAA air traffic control facilities is already at a 30-year low, due in part to the Government shutdown in 2013, and more than 20 percent of the current controller workforce is eligible to retire.⁸ During the 35-day shutdown, the FAA's controller training academy was closed, preventing a pipeline of new controllers from completing the training needed to enter an FAA facility for on-the-job-training.⁹

Inspectors and Technicians. According to PASS, during the 35-day shutdown, the majority of FAA aviation safety inspectors were furloughed. These inspectors are responsible for oversight of commercial and general aviation aircraft, pilots, flight instructors, and repair stations in the United States and abroad.¹⁰ In addition, FAA manufacturing inspectors—who oversee the manufacturing of aircraft and aircraft components—and engineering services technicians—who implement air traffic control operation projects—were furloughed,¹¹ potentially impacting the FAA's ability to ensure the highest level of aviation safety. Despite the FAA recalling inspectors and engineers during the shutdown, these employees, like controllers, did not receive pay until the shutdown ended.

Other FAA Employees. Despite contract authority provided by the FAA Reauthorization Act of 2018, multiyear appropriations, and use of franchise funds, allowing the FAA to pay and keep on the job approximately 2,300 FAA employees, in total, more than 17,000 employees with positions at the FAA were furloughed at the start of the shutdown. The furlough of these employees, across all of the agency's lines of business, temporarily ceased, disrupted, or delayed important work and agency oversight of the industry. Below are examples, provided by various aviation stakeholders, of how the furlough of FAA employees impacted agency operations and the U.S. aviation industry.

- *Airspace Modernization:* The FAA's work on NextGen—the modernization program for the U.S. air traffic control system—was suspended,¹² further delaying the anticipated safety and efficiency benefits for airspace users and the traveling public.
- *Important FAA Rulemakings:* Planned and ongoing aviation rulemaking activities were suspended.¹³ Many of these rules, such as safety rules to address the risks posed by drones in U.S. airspace, are needed to advance the U.S. aviation industry and make our skies safer.¹⁴
- *Certification and Validation:* The shutdown prevented the aviation industry from receiving important FAA approvals. For example, airlines were unable to add new planes to their fleets, delaying or disrupting services,¹⁵ and manufacturers could not receive the FAA-approval needed to get new aircraft, aviation equipment, and products to market.¹⁶ In addition, the furlough of FAA employees temporarily halted FAA-inspection and certification of repair stations and training manuals for pilots.¹⁷ Combined, the lack of FAA-approvals cost companies, especially small businesses, financially.¹⁸
- *Airport Infrastructure:* The FAA issued no new Airport Improvement Program grants to U.S. airports during the shutdown, and the furlough of FAA employ-

⁷See TIME, "We're All Human." Air Traffic Controllers Are Missing Another Paycheck, and It's Taking a Toll, Jan. 24, 2019, <http://time.com/5512249/air-traffic-controllers-paychecks-shutdown/>.

⁸See Letter, *supra* note 5.

⁹Id.

¹⁰PASS, *Aviation Safety Inspectors Grounded During Government Shutdown* (Dec. 22, 2018), <https://www.passnational.org/index.php/news/706-aviation-safety-inspectors-grounded-during-government-shutdown>.

¹¹Id.

¹²Id. at 5.

¹³Id.

¹⁴See DOT, *Report on DOT Significant Rulemakings*, Nov. 2018, available at https://www.reginfo.gov/public/do/eAgendaMain?operation=OPERATION_GET_AGENCY_RULE_LIST¤tPub=true&agencyCode=&showStage=active&agencyCd=2100&Image58.x=25&Image58.y=14 (listing more than 20 FAA-significant rulemakings).

¹⁵Letter from more than 30 aviation and aerospace organizations to the President of the United States, Speak of the U.S. House of Representatives, and Majority Leader of the U.S. Senate, Jan. 10, 2019, <https://www.iata.org/pressroom/Documents/letter-us-aviation-shutdown-impacts.pdf>.

¹⁶GAMA, *FAA Shutdown Impacts on General Aviation Manufacturing and Maintenance* (Jan. 22, 2019) (on file with committee staff).

¹⁷Id.

¹⁸Id.

ees who work with airports on upcoming construction projects may cause unnecessary delays and increased costs of infrastructure projects.¹⁹

- *Congressional Mandates*: Nearly all of the FAA’s implementation of congressional mandates in the recently enacted FAA Reauthorization Act of 2018 and prior laws was brought to a halt. Such mandates include requiring 10 hours of minimum rest between duty periods for U.S. flight attendants, FAA review of its current cabin evacuation procedures, requiring the installation of secondary cockpit barriers on each new aircraft that is manufactured for delivery to passenger airlines, general aviation safety provisions, and other important FAA reform mandates.²⁰

OTHER SHUTDOWN IMPACTS ON U.S. AVIATION

Civil aviation plays a central role in the United States, supporting more than \$1.5 trillion of economic activity and more than 11 million jobs, according to industry groups.²¹ The unprecedented 35-day partial shutdown negatively affected the U.S. aviation industry, including airlines, general aviation, airports, manufacturers, and passengers. The shutdown also affected:

- *Aviation Security*. More than 50,000 Transportation Security Administration (TSA) airport security agents worked during the shutdown without paychecks.²² As the shutdown stretched on, an increasing number of TSA agents took unscheduled leave or quit their jobs, leaving airports worried about staffing at security checkpoints.²³
- *Air Travel*. One U.S. airline reported losing an estimated \$25 million in business due to fewer Government employees and contractors traveling during the shutdown.²⁴ In addition, airport security lines at the Nation’s busiest airports grew due to fewer TSA agents on duty, causing longer than normal wait times.²⁵ The shutdown also resulted in the furlough of all employees in the Department of Transportation’s aviation consumer protection division—the office responsible for monitoring compliance with and investigating violations of U.S. consumer protection and civil rights requirements.²⁶
- *Accident Investigations*. The furlough of employees at the National Transportation Safety Board (NTSB)—the independent agency responsible for investigating transportation accidents and advocating for safety improvements—stopped work on more than 1,800 ongoing general aviation and limited aviation safety investigations, and prevented the Board from working with the FAA to investigate 15 general aviation accidents that occurred during the shutdown.²⁷

WITNESSES

- Mr. Paul Rinaldi, President, National Air Traffic Controllers Association, AFL-CIO
- Mr. Mike Perrone, National President, Professional Aviation Safety Specialists
- Mr. Nicholas E. Calio, President and CEO, Airlines for America
- Ms. Sara Nelson, International President, Association of Flight Attendants-CWA
- Mr. Pete Bunce, President and CEO, General Aviation Manufacturers Association

¹⁹ See Letter, *supra* note 15.

²⁰ See sections 335–337, and sections 392–396 of the FAA Reauthorization Act of 2018 (Pub. L. 115–254).

²¹ See Letter, *supra* note 15.

²² N.Y. TIMES, *T.S.A. Agents Refuse to Work During Shutdown, Raising Fears of Airport Turmoil*, Jan. 11, 2019, <https://www.nytimes.com/2019/01/11/nyregion/tsa-shutdown.html>.

²³ *Id.*

²⁴ USA TODAY, *Delta CEO: Government Shutdown Tab \$25 Million and Counting*, Jan. 15, 2019, <https://www.usatoday.com/story/travel/flights/2019/01/15/delta-ceo-government-shutdown-costs-25-million-lost-business/2576031002/>.

²⁵ See N.Y. TIMES, *supra* note 22.

²⁶ See Operations During a Lapse, *supra* note 2.

²⁷ NTSB, *NTSB Resumes Normal Operations—Updated* (Jan. 29, 2019), <https://www.ntsb.gov/news/press-releases/Pages/NR20190129.aspx>.

PUTTING U.S. AVIATION AT RISK: THE IMPACT OF THE SHUTDOWN

WEDNESDAY, FEBRUARY 13, 2019

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON AVIATION,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m., in room 210, House Capitol Visitor Center, Hon. Rick Larsen (Chairman of the subcommittee) presiding.

Mr. LARSEN. The subcommittee will come to order. Before we start, I want to recognize Chairman DeFazio.

Mr. DEFAZIO. Well, thank you, Mr. Chairman. In commemoration of this long-anticipated occasion, your first chairing of the Subcommittee on Aviation, I have here a small gift. So hopefully that will come in handy.

Mr. LARSEN. Craft brewery from Oregon.

[Laughter.]

Mr. DEFAZIO. That is after the hearing.

Mr. LARSEN. Then we had better finish after noon. Very nice. Thank you very much, Peter.

Mr. DEFAZIO. A gavel, which is commemorative.

[Applause.]

Mr. LARSEN. It has got my name on it, so I never have to give this one away.

Mr. DEFAZIO. Right.

Mr. LARSEN. Well, then, we will take a recess and come back into order with the new gavel.

[Laughter.]

Mr. LARSEN. Thanks, Pete. Appreciate it. Garret will take the other one.

So I ask unanimous consent that Members not on the subcommittee today be permitted to sit with the subcommittee at today's hearing and ask questions. Without objection, so ordered.

And I want to say good morning to everyone and welcome to the first Aviation Subcommittee hearing of the 116th Congress. Nineteen days ago, the partial Government shutdown ended but left significant consequences to the U.S. aviation workforce, industry, and economy in its wake.

But we have a forward-looking aviation and aerospace agenda for this Congress. In fact, it was my intention for the first hearing of this subcommittee to be exploring that agenda that included ensuring aviation safety, fostering innovation in the U.S. airspace, im-

proving U.S. competitiveness in the global marketplace, and enhancing the air travel experience for passengers.

This agenda is still my agenda; the subcommittee will continue to pursue it. However, the recent shutdown shed new light on its impacts on the aviation industry and the workforce. But the roots of this hearing go back at least to 2013 and that shutdown under a Democratic administration, when FAA employees were furloughed and air traffic controllers worked without pay.

Even then we were trying to find a way to shield this most critical part of the Government from future shutdowns. So the purpose of this hearing, then, is twofold. First, I want to ensure that this subcommittee creates the public record of shutdown impacts on the aviation and aerospace industry. The panel assembled here today is in the best position to explain these impacts.

I would note that the shutdown has also delayed the subcommittee's work. FAA furloughs have delayed implementation of last year's FAA reauthorization, which in turn delays the oversight mission of this subcommittee. The shutdown also delayed planning for the subcommittee's trip to the FAA Tech Center to observe their critical research to improve the safety of the national airspace.

The second purpose of this hearing is to build a case for H.R. 1108, the Aviation Funding Stability Act of 2019. I want to ensure that the FAA has resources and funding stability needed to preserve the safety of the Nation's aviation system.

Throughout this most recent shutdown, I met with the dedicated women and men of the aviation workforce and did hear about the harmful impacts the shutdown had on their lives. One constituent from Bellingham, Washington, shared with me that her brother, an air traffic controller, worked more than 60 hours a week without pay during the shutdown. Her brother faced severe mental and physical stress wondering when his next paycheck would come.

Aerospace companies in northwest Washington State let me know that they feared that we needed to suspend production. Local aviation safety personnel showed me their pay stubs for zero dollars. Another air traffic controller with whom I had met had to dip into her children's college savings to get by. During the shutdown, thousands of air traffic controllers, engineers, technicians, and critical safety personnel were working without pay.

U.S. aviation is the gold standard of flight because of these skilled individuals. Their work ensures the safety of the traveling public and efficiency of the U.S. airspace. As I noted, the FAA was unable to begin implementation of congressional mandates in the FAA reauthorization such as requiring 10 hours of rest for flight attendants, further integrating new users in the airspace, and setting up rules to address sexual harassment of employees, passengers, and crew.

Furloughed FAA inspectors were unable to approve new aircraft, aviation products, and infrastructure, hindering U.S. global competitiveness. The FAA's work on streamlining the certification process for aviation and aerospace products came to a halt. No new airport improvement program grants could be issued, hurting projects to modernize and maintain airports.

And as the full committee heard last week, Federal aviation infrastructure investment falls short already of growing needs. Wash-

ington State alone needs over \$190 billion in infrastructure investments, with aviation projects requiring \$12.6 billion.

Congress must do what it can to ensure that the FAA, its employees, and the U.S. aviation economy are protected from another Government shutdown. So to this end, committee chair Mr. DeFazio and I introduced legislation that authorizes the FAA to continue to draw from the Airport and Airway Trust Fund, AATF, during a funding lapse and operate at current levels with no congressional action required.

The partial Government shutdown unnecessarily hurt American families and jeopardized the safety of the largest, busiest, and most complex airspace system in the world. To use the metaphor, the lights must stay on at the runways across the United States.

I appreciate the witnesses for taking the time to join today's discussion and for your work during the shutdown. I look forward to hearing more about the impacts on your members, and how Congress can support you in the future. It is my hope that with this hearing, the subcommittee will have made its case that the shutdown impacts are harmful to the economy and that the Aviation Funding Stability Act is the mechanism to shield the FAA and the aviation and aerospace economy from detrimental impacts of future shutdowns.

And I look forward to getting this subcommittee back to its forward-looking agenda of ensuring aviation safety, fostering innovation in U.S. airspace, improving U.S. competitiveness in the global marketplace, and enhancing the air travel experience for passengers. And with that, I yield back 17 seconds. Thank you.

[Mr. Larsen's prepared statement follows:]

**Statement of Hon. Rick Larsen, a Representative in Congress from the
State of Washington, and Chair, Subcommittee on Aviation**

Good morning and thank you to today's witnesses for joining the first Aviation Subcommittee hearing of the 116th Congress.

Nineteen days ago, the partial government shutdown ended, but left significant consequences to the U.S. aviation workforce, industry and economy in its wake.

We have a forward-looking aviation and aerospace agenda for this Congress.

In fact, it was my intention for the first hearing of this Subcommittee to begin exploring an agenda that included: ensuring aviation safety, fostering innovation in U.S. airspace, improving U.S. competitiveness in the global marketplace; and enhancing the air travel experience for passengers.

This agenda is still my agenda, and this Subcommittee will continue to pursue it.

However, the recent shutdown shed new light on its impacts on the aviation industry and workforce.

But the roots of this hearing go back to the 2013 shutdown under a Democratic Administration when FAA employees were furloughed, and air traffic controllers worked without pay.

Even then, we were trying to find a way to shield this most critical part of the government from future shutdowns.

The purpose of this hearing, then, is two-fold.

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And I look forward to getting this Subcommittee back to its forward-looking agenda of ensuring aviation safety, fostering innovation in U.S. airspace, improving U.S. competitiveness in the global marketplace, and enhancing the air travel experience for passengers.

Mr. LARSEN. And I want to now call, though, on the ranking member of the full committee, Mr. Sam Graves, for the ranking member's statement.

Mr. GRAVES OF MISSOURI. Thank you, Chairman Larsen, and congratulations on being appointed to chairman. It is always good.

I guess if you think about it, we have probably averted another shutdown. That is the good news. But with the Green New Deal or the Green Dream, I guess we are not going to have to worry

about that in aviation anymore because we are going to shut down the whole aviation sector and all 11 million jobs that go along with that.

Mr. LARSEN. A point I have made myself.

Mr. GRAVES OF MISSOURI. My actual purpose today is I want to thank the NATCA employees, the PASS employees, and all the Federal employees who worked without pay during the shutdown to keep the economy moving and our skies safe. And I understand that during the entire duration of the shutdown, while the number of operations were up from the same time as last year, there was no increase in serious safety incidents. And we owe a tremendous debt of gratitude for the professionalism that was displayed under some very difficult circumstances.

As we learn more about the short- and long-term impacts of the shutdown, Congress has to hear, I believe, from the FAA and the Department of Transportation about how the shutdown played out and what efforts are underway to recover from those obvious impacts. This information, I think, is vital to us to truly understand the scope of the situation.

[Mr. Graves of Missouri's prepared statement follows:]

Statement of Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure

Thank you, Chairman Larsen for holding this hearing and congratulations on being named Subcommittee Chairman.

Fortunately, it looks like another shutdown will be averted. Although if some in Congress get their way, we may not have to worry about shutting down the aviation system in the future—because apparently, under the Green New Deal, there wouldn't even be an aviation system anymore. Imagining replacing our aviation system—a cornerstone of our economy that provides approximately 11 million Americans with jobs—is just ludicrous, but that's a topic for another day.

Today, I want to thank NATCA employees, PASS employees, and all Federal employees who worked without pay during the shutdown to keep our economy moving and our skies safe. I understand that during the duration of the shutdown, while the number of operations were up from the same time last year, there was no increase in serious safety incidents.

We owe you all a tremendous debt of gratitude for your professionalism under very difficult circumstances.

As we learn more about the short- and long-term impacts of the shutdown, Congress must hear from the FAA and the Department of Transportation about how the shutdown played out and what efforts are underway to recover from those impacts. This information is vital for us to truly understand the scope of the situation.

Mr. GRAVES OF MISSOURI. So with that, I thank you again for having this important hearing, and appreciate the opportunity very much.

Mr. LARSEN. Thank you, Mr. Graves.

I now recognize the chair of the full committee, Mr. DeFazio, for a statement.

Mr. DEFazio. Thanks, Mr. Chairman. Your election—we do not appoint them on our side, Sam; we elect them—is a high point, and I think it is going to benefit aviation and the industry very well.

Like the two before me, I want to thank all of those who worked without pay during the 35 days. I also want to thank those who were furloughed and have come back to a mountain of work, and feel like maybe that they are not essential. They are essential, and

I want to assure them that that, in part, is why we have this legislation before us today.

I met with local employees, including air traffic controllers, and one younger, newer controller was working overtime because my tower, like many across the country, is understaffed so they are already working overtime shifts. But he also, because of a lack of pay, had to take a job as an Uber driver.

So how rested is that young man if he works extra hours in a very stressful job and then undertakes something else that barely makes him minimum wage so that they can at least put on the table? That just cannot happen again. And that certainly happened to people, and I am sure TSA workers and many others were doing that in addition to the garage sales and all those other stupid things that were recommended they do or they had to do out of necessity.

I am concerned that the system was not as safe as it could and should be during the shutdown because of the reason I already mentioned: people stressed out, not getting paychecks, doing extra work to provide for their families. Aviation is too critical to allow this to happen again.

And we still have not gotten over the impacts of the 2013 shutdown, where the school was closed and a bunch of the people who were in the school, some of them aged out, actually, and others just did not come back. And I imagine this time it might even be worse because it was a longer shutdown and they are going to question, boy, am I going to go through this rigorous training process to get a job where every once in a while I am working for free?

So we are discouraging the next generation, and we are already at a critical point with so many people eligible to retire. And by the way, if they say, "Wow, retirees got paid and I did not; maybe it is time for me to pull the plug," they are not going to be there to train that next generation of air traffic controllers.

So we have got to provide some certainty to those who are working there now and those who want to work there in the future and those who work in other aspects. The critical things that the FAA is working on did not get done.

It took me 3 years to finally push back against the model aircraft people and require that we have remote drone identification, which is absolutely critical, or we are going to be shutting down airports all around the country because some idiot is illegally flying their drone and we cannot find them? And sooner or later they are going to fly one into a turbine engine, and maybe we are going to have a catastrophic failure.

So they have got to get that rule out. The flight attendant duty time rule was delayed. Many other critical rulemakings were delayed at the FAA. So that is why we have introduced this legislation. The FAA is unique. It pays for itself. Why should they be subject to a shutdown?

And it is so critical, and it is so safety critical, and it is internationally critical. So this is, I think, a commonsense piece of legislation. I am hopeful that once we get whatever deal is coming forth this week passed, if we get it passed, and if it gets signed by the President, and we do not have another shutdown, which I am cau-

tiously optimistic, that people will look favorably upon our legislation as a way of preventing this sort of dysfunction in the future.

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

Mr. LARSEN. Thank you, Mr. Chairman.

So I would now like to move to the panel—oh, I am sorry. First I will move to Mr. Graves. The other Mr. Graves is recognized.

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman. And first I want to congratulate you for assuming the chairmanship of the subcommittee. I look forward to working with you and continuing the longstanding bipartisan tradition that this committee and subcommittee has held. And I look forward also, Mr. DeFazio, for continuing to work with you in building on some of the success we have had in recent years on transportation highway bill, the water resources bill, the disaster bill, FAA bill, and others.

And Ranking Member Graves, I want to thank you for the confidence that you have instilled in appointing us to this position, and looking forward to working with you and the other leadership to implement the FAA authorization bill and many other priorities.

First, I want to thank the FAA employees and many other Federal employees who worked during the shutdown without being paid. Let's be clear on what a shutdown is. A shutdown is a failure of elected officials to do their job. I feel very much for the Federal employees that were working without pay because, one, you did not do anything to deserve it; two, you cannot do anything to solve it. And I think that is unfair.

In regard to us, I think that one of the real solutions is actually to force Members of Congress to not get paid during a shutdown, and make it automatic, to where we feel the pain as much or more so than any other Federal employee that is subjected to our inability to come up with solutions. We did donate. We tried to reject our pay from December. We did donate all of our pay from December during the shutdown to various organizations, including Coast Guard Foundation, Coast Guard Mutual Assistance, and others. We worked on a daily basis to bring food to Federal employees at TSA, FAA, Coast Guard, Federal law enforcement agencies, and others, in many cases working together with Congressman Cedric Richmond, in an effort to somewhat temper the blow and also show strong support to the Federal employees that were stuck in the predicament that they were.

While I know that the focus right now is on the last shutdown, and I get it—that is the one that is on everyone's minds—I think it is also important to keep in mind that during the Carter administration, I believe we had 56 days' worth of shutdowns. During the Obama administration, we had a 16-day shutdown. And the second longest shutdown in American history, or in recent history, at least, was during the Clinton administration.

And I say it again: It is a failure of our ability to do our jobs. And I think it is inappropriate. And I hate that the Federal employees ended up carrying the burden of this. But it is important also, as Ranking Member Graves noted, that it looks like we are going to be able to avert a shutdown and provide a full fiscal year budget through September 30th of this year and immediately begin working on the fiscal year 2020 budget. And I am excited and looking forward to the opportunity to work with you all on the author-

ization components of those to make sure that we can continue to have a functional Government moving forward.

So I want to say again I want to thank you for being here. I am sorry that the Federal employees were impacted the way that they were. And I am looking forward to working with Chairman Larsen to continue implementation of the FAA Authorization Act and many other important priorities within the aviation industry. I yield back.

[Mr. Graves of Louisiana's prepared statement follows:]

Statement of Hon. Garret Graves, a Representative in Congress from the State of Louisiana, and Ranking Member, Subcommittee on Aviation

Thank you, Mr. Chairman, for calling this important hearing on the impacts of the shutdown to the aviation system.

I want to start by first congratulating you on your selection as chair of the Subcommittee on Aviation. This Subcommittee has a long history of bipartisan cooperation and of setting aside politics to ensure that our national air transportation system remains vibrant and safe. I look forward to working with you and with all members of the Subcommittee.

Nothing exemplifies this Subcommittee's bipartisanship better than the FAA Reauthorization Act of 2018, which is the longest FAA reauthorization since the 1980's. As this Subcommittee oversees the many mandates included in the law, it is important that we understand the status of the FAA's implementation plans following the shutdown.

It is unfortunate that the FAA is not here today to share that information with us, but I know the Subcommittee will be focusing on the FAA's implementation efforts in the coming months.

It is also important that we understand both the short-and long-term impacts of shutdowns on our system and on aerospace stakeholders. Today's witnesses and the stakeholders they represent can take credit for maintaining the safe operation of the National Airspace System during the shutdown. The professionalism of the men and women who run the day-to-day operations of all aspects of the system is remarkable. Despite very trying circumstances, they continued their work ensuring the safety of the system and are to be commended.

I thank the witnesses for participating in today's hearing.

Mr. LARSEN. Thank you, Mr. Graves, for your comments. Appreciate that very much.

And now let's turn to the panel. I want to welcome our witnesses: Mr. Paul Rinaldi, president of the National Air Traffic Controllers Association, AFL-CIO; Mr. Mike Perrone, national president, Professional Aviation Safety Specialists; Mr. Nicholas E. Calio, president and CEO of Airlines for America; Ms. Sara Nelson, international president, Association of Flight Attendants-CWA; and Mr. Pete Bunce, president and CEO of General Aviation Manufacturers Association.

Thank you for being here today. We all look forward to your testimony. I am going to ask unanimous consent that our witnesses' full statements be included in the record. Without objection, so ordered. And since your written testimony has been made part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes.

So we will proceed with testimony, starting with Mr. Rinaldi.

TESTIMONY OF PAUL RINALDI, PRESIDENT, NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION, AFL-CIO; MICHAEL PERRONE, PRESIDENT, PROFESSIONAL AVIATION SAFETY SPECIALISTS, AFL-CIO; NICHOLAS E. CALIO, PRESIDENT AND CEO, AIRLINES FOR AMERICA; SARA NELSON, INTERNATIONAL PRESIDENT, ASSOCIATION OF FLIGHT ATTENDANTS—CWA, AFL-CIO; AND PETER J. BUNCE, PRESIDENT AND CEO, GENERAL AVIATION MANUFACTURERS ASSOCIATION

Mr. RINALDI. Thank you, Chairman Larsen and Ranking Member Graves, Chairman DeFazio, Ranking Member Graves. Thank you for the opportunity to testify about the negative effects of the 35-day shutdown on the members of the National Air Traffic Controllers Association.

Every day over 70,000 flights and 2 million passengers move through our National Airspace System. Although it is the safest system in the world, during the shutdown many of our programs that reduce the risk and enhance the safety of the system have come to a complete stop.

At the time that the shutdown finally ended, I believe the system was on the verge of unraveling. Even though the system is safer today than it was during the shutdown, it is still less safe than it was before the shutdown. The shutdown eroded critical layers that are necessary to support and maintain the safety of the National Airspace System.

For example, programs to prevent wrong surface landings were paused. Each year we have more than 200 events in which aircraft lands, or attempts to land, on wrong runways, taxiways, or even, believe it or not, the entirely wrong airport. Most recently last week at Philadelphia International Airport, a flight was cleared to land on runway 35, but it had lined itself up with the parallel taxiway of Taxiway Echo.

A runway safety enhancement called ATAP alerted the controller immediately, who instructed the pilot to execute a go-around. The pilot overflew two commercial airplanes on the taxiway by 600 feet. ATAP is deployed in six airports across this country. Prior to the shutdown, the FAA had scheduled to deploy ATAP at 13 major additional airports by the end of March. That implementation is now delayed to the end of June.

In addition, the FAA stopped addressing the risk identified through our voluntary safety reporting program ATSAP. ATAP and ATSAP are just two of a dozen programs that are now significantly delayed and were not functioning correctly during the shutdown. That is what makes the system less safe today.

Mr. Chairman, on January 25th, travelers experienced delays due to decreased capacity. Because the system is complex and interconnected, when delays occur at one facility, it ripples across the entire system. On that day, a small number of controllers in critically staffed areas at two facilities individually determined they were not fit for duty.

NATCA did not coordinate these absences. This was the result of illness and the stress of working over a month without getting paid and not knowing when you are going to get paid. NATCA does not condone or approve any Federal employee participating in a coordi-

nating activity that negatively affects the capacity of the National Airspace System.

Mr. Chairman, the pressure and the extra stress that was inserted into our National Airspace System because of the shutdown was intense. We were getting text messages from controllers with 17 years' worth of experience making mistakes on routine clearances, climbing airplanes into paths of other airplanes at the same altitude because they were distracted because they were thinking about their mortgage. They were thinking about school payments, car payments, food. They were thinking about the shutdown. They were fatigued. They were not focused at the task at hand.

We had controllers going to work every day driving Ubers, waiting on tables, to take care of their family. We have worked really hard to mitigate distractions and reduce the fatigue in our work environment, but this shutdown increased fatigue and inserted all types of distractions in our control rooms.

Add insult to injury, our workforce still has not been made financially whole. This is completely unacceptable, inserting this type of risk into our system. As you know, we are at a 30-year low of fully certified controllers in the system, of which 20 percent of them can retire at any moment. If 20 percent retire tomorrow because we look at another shutdown, we will not be able to run the volume of traffic we do today.

It takes 3 to 5 years to mentor an apprentice to become a fully certified controller. The FAA had to stop their hiring and shut down the training academy because of the shutdown. Our staffing crisis is exacerbated by the shutdown. We need to make sure this never happens again.

I want to thank the Secretary of Transportation Elaine Chao, along with Acting Administrator Dan Elwell and the ATO Chief Operating Officer Teri Bristol, for their leadership through this unacceptable challenge of the National Airspace System.

Chairman DeFazio, Chairman Larsen, I applaud you for introducing the Aviation Funding Stability Act of 2019, H.R. 1108. NATCA strongly supports this bill because it meets our four core principles and it ensures the safety and efficiency of the National Airspace System. It protects the front line workforce. The bill provides stable, predictable funding for our National Airspace System, and it gives the ability to continue to provide service to all the users of the aviation community.

NATCA urges all Members of Congress to support this legislation. I thank you for your time, and I look forward to your questions.

[The prepared statement of Mr. Rinaldi follows:]

**Prepared Statement of Paul M. Rinaldi, President, National Air Traffic
Controllers Association, AFL-CIO**

Thank you for the opportunity to testify on behalf of the National Air Traffic Controllers Association, AFL-CIO (NATCA) about "Putting U.S. Aviation at Risk: The Impact of the Shutdown." NATCA is the exclusive representative for nearly 20,000 employees, including the Federal Aviation Administration's (FAA) air traffic controllers, traffic management coordinators and specialists, flight service station air traffic controllers, staff support specialists, engineers and architects, and other aviation safety professionals, as well as Department of Defense (DoD) and Federal Contract Tower (FCT) air traffic controllers.

GENERAL OVERVIEW

On Friday, January 25, the longest Federal Government shutdown in U.S. history ended after 35 days. However, no one should be under the illusion that it was business as usual for aviation during the shutdown. Every day, 71,500 flights and over 2 million passengers move through the National Airspace System (NAS). Although it is the safest and most efficient system in the world, during the shutdown, many activities and processes that proactively reduce risk and increase safety were suspended. Even though the NAS is safer now than it was during the shutdown, it is less safe today than it was before the shutdown began.

The NAS and the FAA did not revert to normalcy when the shutdown ended. It may take weeks, months, or even years for some aspects of the system to return to normal order. That also is assuming that the 3-week continuing resolution (CR) that ended the shutdown leads to a longer term appropriations bill that averts another shutdown on February 15.

Over 3,000 aviation safety professionals represented by NATCA were furloughed, along with hundreds of thousands of other Federal employees. Another 15,000 NATCA-represented controllers and aviation safety professionals continued to work for more than a month without pay, and without the necessary support staff who provide a critical layer of safety in operating and overseeing the safest, most complex, most efficient airspace system in the world. All of these air traffic controllers and aviation safety professionals were used as pawns in a political fight that had nothing to do with aviation. This is wrong and must not be allowed to happen again.

The safety of the NAS is vital and should never be used as a bargaining tool. Our work needs to be 100 percent right, 100 percent of the time. Air traffic control is an inherently stressful profession and it is wrong that the men and women who operate and oversee the system were forced to worry about how they would feed their families or pay their rent or mortgage while performing their work without pay.

Moreover, nearly 20 percent of all certified professional controllers (CPC) are currently eligible to retire. We know from anecdotal evidence that the shutdown led some controllers to decide to retire earlier than they had planned. We also know that other controllers who were not yet eligible to retire, as well as a few students at the FAA Academy, chose to resign in order to find another way to pay their rent and feed their families. The NAS cannot sustain greater-than-anticipated controller attrition without resulting in reduced capacity—meaning more flight delays for the flying public.

The reality that no one wants to hear is that the NAS was less safe during the shutdown than before it began. The system began to experience decreased efficiency and capacity as a result of the shutdown and was on the verge of unraveling. NATCA sounded the alarm. Our leadership was receiving messages from controllers with decades of experience who had aircraft under their control climbing directly into the path of another aircraft because they were stressed and distracted with the uncertainty on when the shutdown would end, thinking about their mortgage and car payments, medical bills, and feeding their families, rather than their jobs.

On the day the shutdown ended, January 25, travelers experienced a number of flight delays due to decreased capacity. Because the NAS is an extremely complex and interconnected system, when delays occur at one major facility there is a ripple effect across the adjoining airspace and sometimes throughout the entire system. NATCA did not coordinate these controller absences. NATCA does not condone or endorse any Federal employees participating in or advocating for a coordinated activity that negatively affects the capacity of the NAS or other activities that undermine the professional image and reputation of the men and women we represent.

On that day, a small number of controllers from critically staffed areas in two air traffic control facilities individually determined that they were not fit for duty. This was a result of illnesses, the stress of working for over a month without being paid, and not knowing when the shutdown would end and normalcy would return.

Given the unprecedented nature and length of the shutdown, there is no question that it has damaged and will continue to harm the system, which supports 12 million aviation-related jobs and contributes over \$1.5 trillion annually to the U.S. economy. Every time the Government is shut down, or brought to the brink of a shutdown due to political disagreements that have nothing to do with aviation, it has real consequences for real people. Unfortunately, shutdowns and threats of shutdowns have become a common occurrence.

Since the start of Fiscal Year 2018, the FAA has experienced 3 shutdowns and 11 additional threatened shutdowns either due to a lapse in appropriations or a lapse in FAA authorization. Below is a timeline of this stop-and-go funding cycle since the beginning of fiscal year 2018:

- Sept. 30, 2017—Threatened Lapse in both Appropriations and FAA Authorization (CR through 12/8; and FAA Extension through 3/31)
- Dec. 8, 2017—Threatened Lapse in Appropriations (CR through 12/22)
- Dec. 22, 2017—Threatened Lapse in Appropriations (CR through 1/19)
- Jan. 20, 2018—THREE-DAY SHUTDOWN (CR through 2/9)
- Feb. 9, 2018—MULTIHOURLY SHUTDOWN (CR through 3/23)
- March 23, 2018—Threatened Lapse in Appropriations (CR through 9/30)
- March 31, 2018—Threatened Lapse in FAA Authorization; (Extension through 9/30)
- Oct. 1, 2018—Threatened Lapse in both Appropriations and FAA Authorization (received CR through 12/7; and FAA Extension through 10/7)
- Oct. 7, 2018—Threatened Lapse in FAA Authorization (5-year FAA Reauthorization)
- Dec. 7, 2018—Threatened Lapse in Appropriations (CR through 12/2)
- Dec. 22, 2018—35-DAY SHUTDOWN (CR through 2/15)
- Feb. 15, 2019—Threatened Lapse in Appropriations (TBD)

CRITICAL SAFETY CONCERNS

The shutdown was tremendously harmful because it eroded the layers of critical elements necessary to support and maintain the safety of the NAS. Many safety activities that proactively reduce risk and increase the safety of the NAS were suspended as a result of the shutdown. For instance, the FAA Air Traffic Organization's (ATO) Top 5 Hazards in the NAS were not being addressed, which include risks associated with Pilot Weather Reports (PIREPS), Wrong Surface Landings, Safety Alerts, Altitude Compliance, and Operational Risk Management (ORM).

Specifically, safety enhancements that prevent wrong surface landings were suspended because of the shutdown. Each year, there are more than 200 events in which an aircraft lands, or attempts to land, on the wrong runway, on a taxiway, or at the wrong airport entirely. The aviation industry, NATCA, and the FAA are working on the implementation and additional development of new technologies that would provide air traffic controllers with an early warning system designed to mitigate the risk of aircraft landing on the incorrect surface (i.e. runway, a taxiway, or at the wrong airport). Development was significantly delayed because of the shutdown.

Just last week, at Philadelphia International Airport (PHL), a flight was cleared to land on Runway 35, but aligned itself on Taxiway E, parallel to the intended runway. A runway safety enhancement in Airport Surface Detection System—Model X (ASDE-X) called ASDE-X Taxiway Arrival Prediction (ATAP) Alerting System alerted the local controller who immediately instructed the pilot to execute a go-around. The pilot overflew two commercial airplanes on the taxiway by 600 and 700 feet respectively on the go-around.

The ATAP system is currently enabled at five airports in addition to PHL: Hartsfield-Jackson Atlanta International Airport (ATL), Bradley International Airport (BDL), Charlotte Douglas International Airport (CLT), Dallas/Fort Worth International Airport (DFW), and Seattle-Tacoma International Airport (SEA). Prior to the shutdown, the FAA scheduled ATAP to be enabled on March 31, 2019, at 13 additional major airports. However, due to the shutdown, that implementation is now delayed until June 30, 2019, at eight airports: Baltimore/Washington International Thurgood Marshall Airport (BWI), Newark Liberty International Airport (EWR), Honolulu Control Facility (HCF), McCarran International Airport (LAS), Chicago Midway International Airport (MDW), Memphis International Airport (MEM), Chicago O'Hare International Airport (ORD), and Salt Lake City International Airport (SLC).

Voluntary safety reporting programs, such as the Air Traffic Safety Action Program (ATSAP), also were negatively affected. Critical communication between the ATSAP review teams and furloughed staff was deferred, resulting in an inability to properly identify and mitigate safety and training deficiencies. The voluntary safety reporting program for NATCA-represented engineers and service area support staff also was not operating, while all work on existing reported safety issues and associated mitigation activities was suspended.

In addition, some of the critical safety equipment and technology that controllers use every day is decades old and at risk of malfunctioning. Even before the shutdown, the FAA had moved to a "fix-on-fail" maintenance philosophy and had stopped stockpiling critical parts for essential operational equipment. However, because of the shutdown, critical maintenance and repair projects have been delayed even more. There now is a backlog of maintenance projects at facilities around the country. An additional Government shutdown would make this situation worse.

THE NEGATIVE EFFECTS ON THE WORKFORCE AND THE CONTROLLER STAFFING CRISIS

The partial Government shutdown was a disaster for the FAA workforce, including air traffic controllers, traffic management coordinators, and other aviation safety professionals who worked without pay for more than a month. Many of them still have not been made whole financially. It also was disastrous for over 3,000 NATCA-represented FAA employees who were furloughed without pay during the shutdown. Their critical safety work wasn't being performed at all and piled up awaiting their return to duty.

Shutdown Exacerbated Controller Fatigue Problem

In a voluntary survey of NATCA members, we found that many of them started working second jobs because their chosen profession was not paying them. Air traffic controllers are subject to very strict fatigue rules that are intended to ensure that they receive appropriate rest and sleep between shifts. However, in order to make ends meet during the shutdown, many controllers were not resting or sleeping as much between shifts. Instead, they were working second jobs so that they could pay their rent and feed their families. This was a significant problem, because during their non-working time air traffic controllers need to be resting, relaxing, and sleeping in order to counteract the unique stress and fatigue that comes with the job.

FAA Order 7210.3AA prescribes the specific fatigue rules and shift limitations based upon fatigue science studies for controllers, including the 10-hour maximum per shift for all radar facilities and air traffic control towers. It also mandates the duration and frequency of rest periods between shifts. Specifically, that order provides:

Air traffic control specialists whose primary duties are those directly related to the control and separation of aircraft must meet the following criteria:

1. Do not work more than 10 operational hours in a shift.
2. Hours worked before a shift, whether operational or not, will count as operational hours.
3. All work beyond 10 hours must be nonoperational.
4. Have at least an 8-hour break from the time work ends to the start of any shift, except as follows:
 - (a) Employees are required to have a minimum of 9 consecutive hours off duty preceding the start of a day shift. For purposes of this paragraph only, a day shift is generally defined as a shift where the majority of hours fall between 7 o'clock a.m. and 4 o'clock p.m.
 - (b) This requirement applies to all shift changes, swaps, and overtime to include scheduled, call-in, and holdover assignments.
5. Have an off-duty period of at least 12 hours following a midnight shift. (A midnight shift is defined as a shift in which the majority of hours are worked between 10:30 p.m. and 6:30 a.m.)
6. If an employee is assigned more than two (2) consecutive ten (10) hour midnight shifts, all of the consecutive ten (10) hour midnight shifts require a 2100L (Non flex) start time.
7. Ten (10) hour midnight shifts are limited to no more than four (4) in any six (6) day period.
8. No day shift may immediately precede a ten (10) hour midnight shift.
9. Eight (8) hour midnight shifts may be extended by no more than one (1) hour per single shift.
10. A 0530L start time or later is required when working an eight (8) hour day shift prior to an eight (8) hour midnight shift. Employees may not flex to an earlier start time than 0530L.
11. Do not work more than six shifts without taking a regular day off.
12. Authorized leave, compensatory time used, and credit hours used are considered hours of work.
13. These criteria apply to shift adjustments, including the exchange of shifts and/or days off and the change of shifts and/or days off.

Even under normal circumstances, extended workdays and workweeks can lead to significant fatigue concerns for the workforce. Just last week, the National Transportation Safety Board once again identified fatigue on its list of 10 most wanted transportation safety improvements. Although NATCA and FAA, along with other stakeholders, have worked collaboratively to develop a fatigue awareness and education campaign called "Fully Charged," which is part of the collaborative Foundations of Professionalism program, the only long-term solution is sufficient staffing.

NATCA has worked very closely with the FAA in recent years to develop and implement new fatigue risk management tools and to educate the workforce on the need for rest and sleep during non-work time. This shutdown undermined all this

essential work. A tired workforce will make more mistakes. A tired and distracted workforce will make even more. The shutdown injected significant risk into a system that is designed to eliminate risk.

Hiring Freeze and FAA Academy Closure

The FAA Training Academy in Oklahoma City was closed during the shutdown and just began classes again last week. The FAA also suspended hiring and training for all new hires and controller advanced skills classes were canceled throughout the shutdown.

In late December 2018, the FAA gave notices to approximately 440 students at the FAA Academy placing them on furlough or returning them to their facilities where they are partially certified. FAA also gave a stop work order to Science Applications International Corporation (SAIC), the contractor that performs training functions at the Academy. The FAA canceled a month of Air Traffic Basics courses and advised over 100 students not to show up for their scheduled class start dates. The FAA canceled additional classes through February 11. Now that classes have started again, all future students will have to be rescheduled into appropriate classes to begin training later than what would have otherwise occurred.

Prior to the shutdown, the FAA's hiring target for fiscal year 2019 was 1,431 and now we are concerned that the goal will not be attainable. This is unacceptable. Further staffing reductions could have an immediate and detrimental effect on capacity, meaning fewer aircraft in the sky and greater potential for delays.

No Staffing for Integrating New Users and Implementing NextGen Technology

If this staffing crisis continues, the FAA will be hard-pressed to maintain current capacity, let alone modernize the system and expand it for new users, such as commercial space operations, Unmanned Aircraft Systems (UAS), and supersonic jets. Understaffing at air traffic facilities hinders the deployment and training of NextGen programs, procedures, and equipment. Moreover, integrating new users into the NAS was put on hold during the shutdown, and those delays will negatively affect private sector innovation—both big and small companies alike.

Air Traffic Controller Staffing Crisis Background

Air traffic controller staffing has been a concern for many years. It reached a crisis level in 2015 and despite some recent progress within the FAA's hiring, training, and transfer processes, it remains a challenge, one that has been exacerbated by the shutdown.

Since 2015, NATCA has been raising concern and awareness about the staffing issue because of the disastrous effects that further staffing reductions could have on system capacity. On December 8, 2015, NATCA addressed the controller staffing crisis at a congressional Roundtable policy discussion held by this subcommittee. On June 15, 2016, NATCA testified about the controller staffing crisis before this subcommittee at a hearing titled "A Review of the Federal Aviation's Air Traffic Controller Hiring, Staffing and Training Plans." Then, on May 17, 2017, NATCA again testified about the controller staffing crisis, as part of the justification for needing ATC reform, before the full Committee on Transportation and Infrastructure, at a hearing titled "The Need to Reform the Federal Aviation Administration and Air Traffic Control to Build a 21st-Century Aviation System for America."

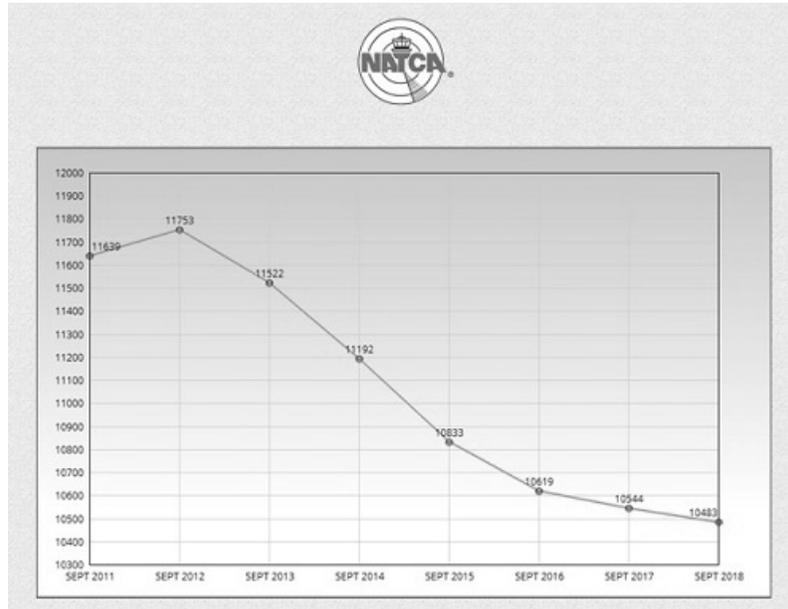
The FAA's CPC workforce has reached a 30-year low. Controller staffing has fallen 10 percent since 2011, and a significant percentage of the certified controller workforce remains eligible to retire (18 percent). Stop-and-go funding for the FAA has made this problem worse. Sequestration forced the FAA to institute a hiring freeze and shutter the FAA Academy between March and December 2013. The hiring freeze compounded an already tenuous staffing situation in which the FAA had barely been able to replace retiring controllers. The FAA never made up for the sequester-related hiring freeze in 2013.

New hires who are admitted into the FAA Academy today will require 2 to 5 years of training before they become fully trained and capable of separating air traffic on their own. Moreover, of those who are admitted, currently only 64 percent of students in either the Tower/Terminal or En Route options will successfully complete their Academy training and screening before moving on to train at their facility. There is additional attrition once Academy graduates begin on-the-job training at their facilities.

Even increased hiring by the FAA in 2015, 2016, and 2017 did not make up for the attrition experienced from 2013 through 2017. Although the FAA has exceeded its hiring targets each of the past 3 years, CPC staffing levels continued to go down by 3.2 percent over that period. One potential solution, as part of a comprehensive hiring and training program, is to utilize the Academy's maximum throughput capacity (approx. 2,000 students per year).

Facilities that are at critical staffing levels (defined as requiring mandatory overtime and a 6-day work week to fully staff all positions) are facing a dire situation, as retirement-eligible controllers continue to retire at a high rate, and those left on the job begin the time-intensive process of training controllers transferring from less complex/busy facilities and/or Academy graduates.

The shutdown caused a ripple effect further delaying Academy training courses throughout 2019. There is no question that this shutdown has and will continue to exacerbate the existing air traffic controller staffing crisis.



Air Traffic Controller Staffing: 2011–2018

	2011	2012	2013	2014	2015	2016	2017	2018
On-Board	15,236	15,063	14,461	14,059	14,010	14,050	14,009	14,285
CPC¹	11,639	11,753	11,522	11,192	10,833	10,619	10,544	10,483
CPC-IT²	965	1,143	1,187	1,200	1,218	1,259	1,205	1,320
DEV³ (Including AG⁴)	2,632	2,167	1,741	1,667	1,959	2,172	2,260	2,482
AG	676	671	440	665	936	878	883	980
Retirement Eligible	3,064	3,224	3,077	2,982	3,355	2,915	2,410	1,842
FAA Planned to Hire	829	981	1,315	1,286	1,772	1,619	1,781	1,701
FAA Actually Hired	824	925	554	1,112	1,345	1,680	1,880	1,787

Source: FAA Finance Staffing Data Snapshot, FAA Controller Workforce Plan

¹ CPC: Certified Professional Controller

² CPC-IT: Certified Professional Controller in Training (fully certified elsewhere, transferred to a new facility and began training there)

³ DEV: Developmental (trainee)

⁴ AG: Graduate of the FAA Initial Classroom Training Academy in Oklahoma City, newly hired, and started at their first facility as a trainee

OPERATIONAL CONSEQUENCES

Air traffic control is a complex, high-consequence profession requiring multiple layers of safety processes and procedures (e.g. safety reporting, quality control, quality assurance, training) to ensure that we deliver the highest level of safety to the flying public. Just as you would not ask a surgeon to perform a surgery without their surgical team, you should not require controllers to perform their work without their support team of approximately 3,000 NATCA-represented aviation safety professionals, many of whom remained furloughed throughout the shutdown.

For example, staff support specialists who work at air traffic control facilities to provide tactical, strategic, and administrative support of training; quality assurance/

quality control of air traffic control and traffic management; manage and redesign airspace and air traffic control procedures; support operational automation, military operations, and air traffic safety management systems. They were furloughed during the shutdown. Aircraft certification engineers assist in design, production approvals, and airworthiness certification of aircraft and their components. They were furloughed during the shutdown. Other NATCA-represented engineers design and construct critical infrastructure necessary for safe flight operations including air traffic control towers, radar maintenance and installation, navigational aids, and communications systems. Many of them also were furloughed during the shutdown. FAA's flight test pilots were furloughed during the shutdown.

WASTED TAXPAYER MONEY AND RESOURCES—DELAYS TO MODERNIZATION AND THE
INTEGRATION OF NEW USERS

As a result of the shutdown, all FAA modernization work and new user integration was stopped. The shutdown has and will continue to cause significant delays to these projects, wasting critical resources and Federal taxpayer money. Even now, delays to the timelines for each project will have a cascading effect on each project as the FAA scrambles to restart work and deconflict waterfall timelines. For instance, we know that the shutdown cost taxpayers up to \$8M in order to repeat training for controllers related to the implementation and deployment of Enroute Controller Pilot Data Link Communications (CPDLC), most often referred to as DataComm. This system is the next generation of communication between pilots and controllers.

In addition, work on integrating new users such as Unmanned Aircraft Systems (UAS), commercial space launches, and supersonic aircraft into the NAS was put on hold, which will negatively affect private sector innovation. Critical construction to the physical infrastructure also stopped at airports and radar facilities across the country.

Delays to Programs that Benefit General Aviation

General aviation also felt the effects of the shutdown as many related programs continue to experience significant delays. Below are some examples of these delayed programs:

- Northeast Corridor quick climb out procedures out of Teterboro and Westchester County.
- Multiple Airport Route Separation (MARS) safety case—The MARS concept will procedurally deconflict departure and arrival flows between multiple adjacent airports, with air traffic control providing radar monitoring instead of radar separation and vectoring.
- Decoupling of approach procedures in LaGuardia (LGA), Newark (EWR), and Teterboro (TEB) to reduce delays.
- Noise reducing departure procedures out of Teterboro.
- Atlantic Coast Routings that will eventually improve flow and throughput along the Atlantic seaboard.
- Use of Performance Based Navigation (PBN) procedures to leverage aircraft avionics and ground infrastructure to maximize safety and efficiency between airports and in congested airspace.
- Las Vegas and south Florida metroplex projects, which are developing procedures for satellite airports like Henderson Executive Airport (HND), Southwest Florida International Airport in Fort Myers (RSW), Palm Beach International Airport (PBI), and Orlando Executive Airport (ORL).

Delays to VOR Network Modernization Program (VORMON)

The NAS is in the process of transitioning away from a standalone VOR network (i.e. Very High Frequency (VHF) Omni-Directional Range radio ground-based navigational aide) to the more-efficient Performance Based Navigation (PBN) system. Very High Frequency Omni-directional Range Minimum Operational Network (VORMON) will eliminate redundant coverage and will provide more efficient routings in congested metropolitan areas. Conventional airways (SIDS, STARS, IAP, etc.) that were previously supported by VOR may be replaced with PBN procedures.

Typically, it takes between 24 to 36 months to design and implement a PBN procedure to replace a conventional VOR procedure. In 2018, 22 VORs were removed. In 2019 and 2020, the FAA was scheduled to remove 27 and 48 VORs, respectively. This schedule is now in serious jeopardy due to the shutdown.

Delays to Performance Based Navigation (PBN) Procedures

The modernization of the U.S. satellite-based network of PBN flight paths will help air traffic conduct Trajectory Based Operations (TBO). PBN services are laying

the foundation for the NAS of the future by enabling many NextGen operational improvements, capabilities, and initiatives. Through these programs, the FAA is beginning to monitor an aircraft's trajectory including its time at points along a 3-D path so that we can anticipate the timing of arrivals at major airports. Ultimately, PBN procedures and routes save time and fuel while reducing emissions.

The FAA has already published more than 9,300 PBN procedures and routes. Before the shutdown, there were over 1,000 procedures that were being developed in collaboration with pilots, air traffic controllers, and airports. This has been significantly delayed and, even now that the shutdown is over, it may take 24 to 36 months to continue the design and implementation process for many of these procedures. For instance, multiple large and small PBN projects will be delayed including projects in south Florida, Las Vegas, Detroit, Cleveland, Denver, the Northeast Corridor initiative, and airspace modernization efforts at Louisville International Airport (SDF).

Time Based Flow Management (TBFM) and Traffic Flow Management System (TFMS) Further Deployment Delayed

TBFM and TFMS will enhance NAS efficiency by using the capabilities of a decision-support tool, which is already deployed at numerous air traffic control facilities. TBFM and TFMS maximize aircraft throughput and capacity within the system in order to maintain a high level of efficiency and predictability by reducing delays, travel time, and fuel expenses. These programs also help reduce the effects on the environment including noise, emissions, and other environmental issues in the implementation and operation of the aviation system.

Improvements in TBFM/TFMS core Time Based Metering capability and its trajectory modeler—an expansion of its departure capabilities to additional locations—and enhancements to departure capabilities, will enhance efficiency and optimize demand and capacity. Moreover, capabilities in this portfolio will be leveraged to enable aircraft to maintain a spacing interval behind a preceding aircraft, further improving capacity and flight efficiency. Improvements also will enable controllers to more accurately deliver aircraft to the Terminal Radar Approach Control (TRACON) facilities while providing the opportunity for aircraft to fly optimized descents.

Approximately 93 FAA facilities currently have TBFM: 20 Air Route Traffic Control Centers (ARTCCs), 28 TRACONs, and 45 Air Traffic Control Towers. However, enhancements and updates that will enable future capabilities will be significantly delayed due to the shutdown.

Delays to Terminal Flight Data Manager (TFDM) Deployment

TFDM is the surface management solution for NextGen. With growing congestion on the airport surface due to the increase in commercial air traffic nationwide, the need for efficient aircraft traffic planning on the airport ground is critical. This program has been delayed due to the shutdown.

Over the life of the system, TFDM is expected to provide 313 million gallons in fuel savings, while reducing over 3 million metric tons of carbon emissions. The flying public also will experience fewer delays, more reliable flight schedules, improved passenger satisfaction, and improved predictability. Airlines and other flight operators will experience improved schedule predictability and crew utilization, less taxi time and fuel burn, increased reliability of connection, and reduced departure lines on the taxiway. Airport operators expect to reduce their CO₂ footprint, reduce engine noise, and experience a more balanced use of airport resources.

Air traffic services expect to benefit through automatically updated flight plans and electronic flight strips, easier rescheduling canceled and delayed flights, fewer aircraft in the movement area and departure queue, and improved surface situational awareness at the TRACON, ARTCC, and Command Center. Most importantly, TFDM will improve safety, as controllers will experience less "heads down" time.

Trajectory Based Operations (TBO) Deployment

TBO is an Air Traffic Management (ATM) method for strategically planning, managing, and optimizing flights throughout the NAS by using time-based management, information exchange between air and ground systems, and the aircraft's ability to fly precise paths (PBN) in time and space. TBO deployment at the first three sites—Northeast Corridor, Denver, and Atlanta—has been significantly delayed due to the shutdown.

Once fully deployed, TBO will leverage improvements in navigation accuracy, communications, surveillance, and automation to decrease the uncertainty of an aircraft's path in four dimensions—lateral (latitude and longitude), vertical (altitude) and time—which will result in significant improvements in strategic planning. However, TBO requires every participant and system to be operating on the same plan.

That plan is expressed and shared through the agreed trajectory, which is used as a reference for the flight and contains estimates for arrival times at key points along the flight.

The time-based parameter provides a common planning reference across all phases of flight, including pre-departure. This facilitates planning integration across ATC domains, enables the FAA to plan against the schedule objectives of users (i.e. departure and arrival times), and allows for more dynamic planning through a constrained area such as a major weather event, metering adjustments across merge points for the convergence of major flows, or for individual aircraft being integrated into congested flows.

FAA Will Struggle to Meet 2020 Mandate for Automatic Dependent Surveillance–Broadcast (ADS–B)

ADS–B is a new type of surveillance dependent on a global navigation satellite system (GNSS), typically GPS, where the position of the aircraft is derived in its avionics and broadcast to a network of ground based radio stations. ADS–B positions are typically more accurate than traditional radar and broadcast much faster, about once per second. ADS–B reports also include more information than simply an aircraft’s position.

The FAA has mandated that all aircraft must be equipped with “ADS–B Out” technology (equipment installed on the aircraft that transmits position information to the ADS–B system) by January 1, 2020. Prior to the shutdown, ADS–B was scheduled to be deployed at the last FAA facility by September 2019. The FAA now will be hard-pressed to meet that target date and full ADS–B deployment is likely to be delayed.

Enterprise Information Display System (E–IDS) Development and Testing Delayed

Development and deployment of E–IDS will allow controllers to access vital information while working an operational position such as approach plates, letters of agreement, weather, airport configurations, standard operating procedures, and Notices to Airmen (NOTAMs). E–IDS is currently in the development phase and, once completed, will combine the five existing information display systems into one. Several of these existing systems are well-beyond their lifecycle and are constantly at risk of failing. This program could be significantly delayed due to the shutdown.

Consolidated Wake Recategorization (CWT)

CWT enables controllers to use more efficient aircraft separation standards (flying planes closer together) without compromising safety, which means that more planes can take off and land throughout the system. Currently, CWT is deployed at seven terminal facilities, with 18 more to come. Further deployment of this program has been delayed due to the shutdown.

NextGen Weather Program (NWP)

NWP is a critical part of NextGen because it helps reduce the negative effects of weather on aviation, resulting in safer, more efficient, and more predictable day-to-day NAS operations. NWP will be able to provide tailored aviation weather products within the NAS, helping controllers and operators develop reliable flight plans, make better decisions, and improve on-time performance. This program has been delayed due to the shutdown.

CONCLUSION

There can be no doubt that the status quo is broken and has been for some time. The 35-day shutdown was just the latest of many instances in which FAA funding, its workforce, and the aviation industry have been held hostage by a political disagreement that has nothing to do with aviation. A second shutdown would be much more disastrous for the system if the 3-week CR does not lead to a longer term appropriations bill on or before February 15.

This shutdown emphasized that a stop-and-go funding stream is unsustainable. Stop-and-go funding crises wreak havoc on the NAS, delay critical modernization and infrastructure projects, and exacerbate the current controller staffing crisis, which has resulted in a 30-year low of CPCs. Every time the NAS is forced to endure another shutdown or a threatened lapse in appropriations or FAA authorization, the United States is at risk of losing its status as the safest, most efficient airspace system in the world. We must not let this happen again and NATCA will continue to fight for a solution to this problem.

As a result, NATCA’s position on air traffic control reform remains consistent. We do not support any one particular reform model and we will meticulously review the details of any proposal before deciding whether to support or oppose it. In order to

receive NATCA's consideration for support, a reform proposal must improve upon the status quo, without adopting a for-profit air traffic control model, and—at minimum—meet NATCA's Four Core Principles for Reform:

1. Any reform model must ensure that the frontline workforce is fully protected in its employment relationship. It is crucial to maintain NATCA members' pay and benefits, including retirement and health care, along with our negotiated agreements for their work rules, and indemnification for our members for acts within the scope of their employment.
2. Safety and efficiency must remain the top priorities within the system. We cannot allow maintenance to lag or a reduction in staffing to save money. The NAS must be fully staffed to ensure both safety and efficiency, and to maintain capacity.
3. A stable, predictable funding stream must adequately support air traffic control services, staffing, hiring and training, long-term modernization projects, preventative maintenance, and ongoing modernization to the physical infrastructure. Stop-and-go funding crises slow the hiring and training process, which exacerbate the current controller staffing crisis. The lack of a stable funding stream also prevents timely implementation of NextGen modernization projects.
4. Any reform model must maintain a dynamic aviation system that continues to provide services to all segments of the aviation community, from commercial passenger carriers and cargo haulers to business jets and to general aviation, from the major airports to those in small communities and rural America. We cannot emphasize enough how important it is that our system continues to provide services to the diverse users of the NAS. The United States has a vibrant general aviation community that relies on us, while the economic success of rural America also is connected to access to the NAS through serving even the most remote areas.

NATCA thanks Chairman DeFazio and Chairman Larsen for introducing the Aviation Funding Stability Act of 2019 (H.R. 1108). We are urging everyone in Congress to support it. NATCA has thoroughly reviewed the Aviation Funding Stability Act of 2019. It would provide a stable, predictable funding stream for the NAS by preventing Government shutdowns from affecting the FAA. NATCA strongly supports this legislation.

Thank you for the opportunity to offer testimony on this critical issue.

Mr. LARSEN. Thank you, Mr. Rinaldi.

Mr. Perrone, you are recognized for 5 minutes.

Mr. PERRONE. Thank you. Chairman DeFazio, Chairman Larsen, Ranking Member Grave, and members of the subcommittee, thank you for inviting me to testify on behalf of the Professional Aviation Safety Specialists to discuss the impacts of the recent Government shutdown.

The impacts of the shutdown resonated throughout the industry as aviation safety inspectors and many others sat idly on the sidelines for weeks. Frustration grew, morale dropped, while modernization was brought to a standstill. In addition, the FAA's ability to recruit and retain highly skilled workers may have been severely damaged.

PASS represents approximately 11,000 FAA employees nationwide, including Puerto Rico, Guam, and American Samoa. They install, maintain, support, and certify complex air traffic control equipment. They inspect and oversee the commercial and general aviation industries. They develop flight procedures and perform quality analysis of aviation systems using air traffic control. They aid in the building and restoring of air traffic control facilities as well.

These employees are the voice of aviation safety. They provide a unique insight into the system in the industry they oversee. Our members are tasked with ensuring that the U.S. aviation system

remains the safest in the world 24 hours a day, 7 days a week. Yet for 35 days, many of them were not performing their duties.

Those who were on the job were working under stressful conditions without pay, while some worked over 10-hour shifts. Dedicated Federal employees, many of them lifelong public servants and military veterans, became collateral damage in a dispute unrelated to aviation safety.

Employees within the FAA's Office of Aviation Safety represent the backbone of the system. They develop regulatory standards and ensure your aircraft and those responsible for keeping it in the sky are up to the task and in full regulatory compliance.

But when the shutdown began, thousands of aviation safety inspectors were furloughed and told not to report to work. They wanted to, but they couldn't. For 35 days the FAA's safety oversight was severely curtailed. With each passing day, a layer of safety was stripped away as the system became more exposed to risk. For example, the FAA was not overseeing foreign repair stations for 35 days, and the world knew it. This is not an acceptable standard.

The aviation industry depends on vital certification work that PASS-represented employees perform. But during the shutdown, important certification activities were on hold. The FAA and the aviation industry will likely feel the effects of this shutdown for years to come.

Thousands of other FAA employees, primarily in the Air Traffic Organization, or ATO, remained on the job without pay. This includes airway transportation system specialists as well as other safety professionals. Modernization of the system was brought to a halt. Implementation of NextGen programs, procedures, and equipment were not being deployed, and training was halted. This will inevitably lead to delays in the implementation of new technologies and procedures. Again, the long-term impacts of the shutdown will resonate throughout the industry.

As stated before, the agency's ability to attract and retain highly skilled employees after the shutdown may have been damaged. Employees trained and certified by the Government will look to the private sector for job security. Inspectors are fleeing to the private sector, and years of experience will be lost. The call to public service may be lost as well.

The human impact must be considered. The timing of the shutdown before and after the holidays could not have been worse. FAA employees needed to be focused on critical duties, not on whether they can pay their bills or if they need a second job to put food on the table.

During the shutdown, I heard from one of my members in Gonzales, Louisiana, who is in the administrative side of the house, and was furloughed during the shutdown. She is a single mother of three and putting two children through college. She is also a veteran, who dutifully served her country. Yet for 35 days, her main concern was the shutdown and when she would be able to pay her bills. She told me of the psychological effects and the stress it put on her and her family. She deserves better than this. All Federal employees deserve better than this.

In closing, PASS emphasizes that every day the Government is shut down, our country is gambling with aviation safety. We cannot subject the flying public to unnecessary risk due to political disagreements. Aviation safety is like a team sport: Without support staff, facilities would not operate at an optimum level. Without technicians, the air traffic controllers would not be able to perform their job. And without inspectors, the aviation system becomes less safe and efficient. The full team needs to be on the job, free of unnecessary burdens unrelated to the mission.

Thank you very much for the opportunity to testify on this important issue, and I look forward to answering any questions.

[The prepared statement of Mr. Perrone follows:]

Prepared Statement of Michael Perrone, President, Professional Aviation Safety Specialists, AFL-CIO

Chairman Larsen, Ranking Member Graves, and members of the subcommittee, thank you for inviting me to testify on behalf of the Professional Aviation Safety Specialists, AFL-CIO (PASS) to discuss the impacts of the most recent Government shutdown and the risk Government shutdowns pose to the safety of the aviation system. The impacts of the shutdown resonated throughout the industry and across the country as aviation safety inspectors sat idly on the sidelines for weeks, morale suffered and frustration grew, and modernization was brought to a standstill.

PASS represents approximately 11,000 Federal Aviation Administration (FAA) and Department of Defense employees throughout the United States. PASS-represented employees in the FAA install, maintain, support and certify air traffic control and national defense equipment, inspect and oversee the commercial and general aviation industries, develop flight procedures, and perform quality analyses of complex aviation systems used in air traffic control and national defense in the United States and abroad. PASS members work behind the scenes to ensure the safety and efficiency of the aviation system that transports over 800 million passengers to their destination each year. The diversity of the PASS-represented workforce provides insight into the safety of the system they maintain and the industry they oversee. PASS members are tasked with ensuring that the U.S. aviation system remains the safest in the world 24 hours a day, 7 days a week.

Yet, for 35 days, many of these employees were furloughed and not performing their duties while others were working under stressful conditions. None of them were getting paid. Thousands of FAA employees went for weeks without a paycheck and worked with the uncertainty of not knowing when that paycheck would come. These FAA employees—from aviation safety inspectors to technicians to administrative staff—are the true victims despite the fact that funding of the aviation system was not at stake. To put it simply, dedicated Federal employees, many of them life-long public servants and military veterans, were treated as collateral damage. As a result, a critical layer of safety was removed, and this is unacceptable.

The following is a detailed discussion of the critical work PASS members do and the far-reaching impacts a Government shutdown has on their ability to fulfill their responsibilities. I am confident that you will agree that these committed, dedicated aviation professionals deserve to be treated with respect and dignity and recognized for the important work they perform every day: ensuring the continued safety of the U.S. aviation system.

OFFICE OF AVIATION SAFETY

Within the FAA's Office of Aviation Safety (AVS), PASS represents employees in the Flight Standards Service and Manufacturing Inspection District Offices (MIDO) within Aircraft Certification. Our Flight Standards bargaining unit is comprised of several thousand aviation safety inspectors who perform a range of duties in the field to ensure safety standards are being followed. There are also inspectors and other highly trained staff that develop regulatory standards and policy. Within the Flight Standards Office of Foundational Business are examiners in the FAA's Civil Aviation Registry as well as analysts to oversee budgeting, staffing, training and other support functions. Collectively, these employees represent the safety net of the aviation system; in other words, these employees ensure your aircraft and those re-

responsible for keeping it in the air are up to the task and in full regulatory compliance.

At the onset of the shutdown, Flight Standards and MIDO employees were furloughed and told not to report to work. Essentially, an entire layer of safety was stripped away as the system became exposed to more risk with each passing day. According to FAA policy and directives, this meant that, among other things, the following tasks were not being performed or being performed at a reduced level:

- Approval of exemptions for unmanned aerial systems operations
- Issuance of airmen certificates
- Development of Next Generation Air Transportation System (NextGen) safety standards, as well as development, testing and evaluation of NextGen technologies
- Aviation rulemaking
- Evaluations, audits and inspections
- Full range of air traffic safety oversight¹

Reduction in Safety Oversight

Aviation safety inspectors are responsible for developing, administering and enforcing regulations and standards concerning civil aviation safety. According to the FAA, these employees set the “standards for certification and oversight of airmen, air operators, air agencies, and designees as well as safety of the flight of civil aircraft in air commerce.”² This is a workforce vital to monitoring the risk of the system—they should be on the job every day performing this work without fear of when the next paycheck will arrive. Without every inspector and safety employee on the job focused solely on their duties, the potential risks to aviation safety increased.

Furthermore, the FAA utilizes a risk-based approach to aviation safety. This is intended to allow the agency to identify, address and mitigate risk in the National Airspace System (NAS) and allocate resources to the areas of greatest concern. While PASS has voiced concerns with this philosophy in the past due to reliability of information and methods for assessing risk, the system was dysfunctional during the shutdown. With aviation safety inspectors off the job, risk was not being identified, addressed or mitigated. Critical safety information received from the airlines was not being entered in the agency’s systems. While a catastrophe did not occur during this most recent shutdown, this should not be an acceptable standard for the safest system in the world.

Aviation safety inspectors are also responsible for inspecting aircraft and work performed at foreign repair stations. The airline industry has significantly increased its reliance on outsourced maintenance to foreign repair stations, and PASS has consistently expressed concern that oversight of this work is lacking. PASS appreciates that lawmakers have worked with the union to increase the number of inspections of FAA-certificated foreign repair stations. However, during a shutdown, this work is seriously curtailed. Simply put, the FAA was not overseeing foreign repair stations for 35 days and the world knew it.

Impacts on Certification and Other Inspector Activities

Commercial and general aviation depend on the work of PASS-represented employees and the vital certification work they perform. During the shutdown, oversight of important certification activities was put on hold. This undoubtedly resulted in a backlog of aircraft and design approvals. Aircraft manufacturers depend on FAA inspectors and engineers being on the job to review and certify new equipment on a timely basis. Yet, no new safety designs could be approved, quality system audits and supplier control audits were delayed, and investigations were postponed. Inspectors had to limit their focus and were not able to certify airplanes, repair stations, airline operators and aviation personnel. A lapse in Government operations seriously affects the FAA’s ability to continue to issue its thousands of design approvals and type certificates on an annual basis, along with the ability to conduct safety-required surveillance and oversight necessary in such a technologically complex system.

There was also a decrease in FAA airworthiness directives during the shutdown, which are legally enforceable regulations to correct unsafe conditions in aircraft, engines and propellers. According to a *Consumer Reports* investigation, since January 1, the FAA has published only two directives compared to 19 during the same period

¹Department of Transportation, Office of the Assistant Secretary for Budget and Programs, and CFO, “Operations During a Lapse in Annual Appropriations Plans by Operating Administration,” December 2018 (revised as of January 11, 2019).

²Department of Transportation, *Federal Aviation Administration, Aviation Safety Workforce Plan 2017–2026*, p. 25, 2017.

last year.³ Normally, these directives stem from the daily work of FAA inspectors. However, with the majority of inspectors furloughed, the flying public could only trust the airlines inspecting themselves, an inherently unwise approach to safety.

Although a portion of the principle inspectors were eventually recalled during the shutdown, a majority of the FAA personnel who certify the safety of aircraft remained furloughed. Certification timelines are tightly configured, and the impact of the shutdown will not be limited to the 35 days of lapsed Government funding. The FAA workforce and the industry will likely feel the lasting effects of the shutdown for years to come.

Impacts to Recruiting and Retaining Employees

The shutdown exacerbated the existing challenges related to recruiting and retaining employees as well as heightening the ongoing concerns over the FAA's lack of clarity over staffing. For years, PASS has been working with lawmakers on this committee and the agency to encourage the development of a staffing model for aviation safety inspectors in order to properly determine the number of inspectors needed to protect the system. During a shutdown, staffing needs become even more apparent since the agency is unclear on its reasoning for calling back a certain number of inspectors and the timing of the call backs is also uncertain. For instance, as the shutdown continued, in mid-January, Flight Standards altered its staffing plan and recalled approximately 1,700 principle inspectors. However, this only reflected about one-third of the inspector workforce within Flight Standards. The most recent FAA reauthorization legislation instructs the FAA to work with PASS to develop a more reliable staffing model. However, due to the shutdown and the threat of yet another closure, and as the FAA plays catch up with the backlog of oversight activities halted during the shutdown, it is unclear if and when a staffing model will be developed.

The shutdown may very well have long-term impacts within Flight Standards, which is already struggling to attract and retain aviation safety inspectors. The FAA is continuously competing with the airline industry that is oftentimes a more viable financial option for inspectors, particularly when airlines are economically sound. To this end, PASS is engaged in discussions with the FAA to identify ways to maintain these indispensable positions. For example, the FAA recently approached PASS with the idea of hiring certain employees at a higher salary level than typically offered due to hiring challenges. There is no guarantee that this modest increase will be enough to lure qualified employees into Government service. Of certainty, the shutdown does not help and will have done nothing to encourage employees to leave industry or select public service. Additionally, Flight Standards continues to lose journeymen level inspectors at a higher rate than it is able to backfill. This is incredibly disconcerting, especially considering that it can take years to fully train an inspector. Inspector staffing is not just about attracting employees; it is about attracting employees with the right skills, training and expertise to perform the work.

UAS Oversight

Finally, it goes without saying that the aviation industry is rapidly evolving. This could not be more clearly displayed than through the growing Unmanned Aircraft Systems (UAS or drones) industry. As of July 2017, there were 879,696 registered UAS and over 21,000 UAS remote pilots.⁴ That number has no doubt risen over the past 19 months. According to the FAA, "Enabling rapid growth in UAS operations while maintaining safety of the NAS for all users has become a significant portion of the AVS mission . . . The success of all these initiatives is embedded in AVS's diverse, highly skilled workforce."⁵ In a 2016 memo to supervisors acquired by PASS, the former AVS director indicated that aviation safety technicians (ASTs) should handle virtually all UAS functions. However, ASTs were furloughed during the entire shutdown, essentially putting UAS oversight, approval and inspection at a standstill for 35 days. This no doubt will have far-reaching economic impacts on both the agency and the UAS industry.

It is indisputable that aviation safety inspectors and other employees in AVS should be on the job every day, secure in the knowledge that they will receive a paycheck, and able to perform their duties to the highest of standards.

³McGee, William J. "In Shutdown's Wake, FAA Inspectors Face Backlog of Safety and Maintenance Issues." *Consumer Reports*, January 25, 2019. Accessed February 10, 2019: <https://www.consumerreports.org/airline-safety/faa-inspectors-safety-maintenance-backlog-government-shutdown/>.

⁴Department of Transportation, *Federal Aviation Administration, Aviation Safety Workforce Plan 2017-2026*, pp. 46-47, 2017.

⁵*Id.*, p. 6.

AIR TRAFFIC ORGANIZATION

PASS also represents employees in the FAA's Air Traffic Organization (ATO) including air transportation systems specialists (ATSS), electronics technicians, engineering technicians (colloquially referred to as the technician workforce) as well as other safety professionals and administrative staff. These employees install, test, troubleshoot, repair and certify radar, communications equipment, navigational aids, airport lighting and backup power systems, as well as maintain other systems, equipment and software associated with the NAS. They are the only people authorized to certify the operation of FAA systems and equipment, a task considered inherently governmental.⁶ In short, and according to the FAA's description of the position, they are responsible for "everything air traffic controllers and pilots use for safe flight."

The majority of these employees were not furloughed—they reported to work every day without pay in order to fulfill their responsibility. Through rain, snow and ice, these dedicated professionals were on the job climbing towers and at the airports repairing and maintaining radio towers, RADAR, navigational aids and other equipment to ensure the NAS was functioning. Contrary to some reports, at no point during the shutdown did these employees engage in fix-on-fail maintenance; however, these employees worked under extreme stress to complete their work. Thanks to their dedication, the system was maintained at the highest standards under the conditions. These employees—many of them military veterans—take their commitment to the United States very seriously and only want to perform their jobs and be recognized for their dedication. When they go to work, they should only have to focus on the job of making sure equipment is properly maintained and certified, not whether their families are financially secure.

Modernization and Restoration

Proper staffing at critical airports throughout the country remains a challenge while hiring and training new technicians is not a quick or easy process. Inadequate technician staffing will no doubt result in increased restoration times during an outage and more air traffic delays. It can also make it difficult to ensure 24-hour safety coverage, a potentially dangerous situation that increases the risk of major air traffic issues. Understaffing of the FAA's technical workforce combined with the daily stress of the Government shutdown only undermines safety. The United States must strive to retain the very best men and women to ensure the safety of the world's most complex aviation system.

Modernization of this complex aviation system is also directly impacted during a Government shutdown. For 35 days, implementation of Next Generation Air Transportation System (NextGen) Modernization throughout the country was halted while NextGen programs, procedures and equipment were not being deployed. These intricate programs and the dedicated professionals carrying them out, all instrumental to NextGen, are sidelined during a shutdown. This halts modernization midstride, producing impacts that will continue to resonate throughout the system and lead to inevitable delays to the implementation of new technologies and procedures.

HUMAN IMPACT

The timing of the shutdown—before and after the Christmas holiday—could not have been worse for those not receiving a paycheck. Even though they were not getting paid, many FAA employees still had to report to work and endure the associated costs, such as transportation and child care. PASS surveyed members on the job during the shutdown to determine morale among coworkers. Phrases and words that appeared most often included "terrible," "stressed," "upset," "frustrated" and "fatigued." That is no type of work environment for the men and women responsible for ensuring the safety of the flying public.

It is also worth noting that a Government shutdown impacts morale among the workforce. Not only are employees being deprived of compensation but forcing some employees to work while others are told to stay at home creates resentment and intensifies the frustration. While there is an attempt to lessen the burden on the public by requiring employees to continue work deemed to be essential, it cannot be lost that this disproportionately burdens employees. It is axiomatic that if the public and aviation industry felt the full brunt of a deprivation of Government services, the pressure to end a Government shutdown would be overwhelming.

⁶Manager, General Law Branch, AGC-110, memorandum to Manager, Maintenance Engineering Division, ASM-100, "Contractor Certification of Navigational Systems in National Airspace System (NAS)," June 18, 1991.

PASS also represents support staff in both AVS and ATO, often unsung employees who make sure facilities run in a safe and efficient manner. Not only are these employees typically lowest paid, they are also deemed to be ineligible to work during a shutdown. According to FAA guidance, “Employees whose sole responsibility is performing policy and operational support work would remain on furlough.”⁷ This is unacceptable. FAA employees—all FAA employees—should be able to focus on the critical duties of the job and not on whether they will be able to pay bills for the month or if they need to pick up a second job. These are real people struggling with real problems—house payments, sick children or parents, health issues, debt—and they should not be pawns in congressional negotiations.

ECONOMIC IMPACT

The impacts of the shutdown were not just felt in the pocketbooks of Federal employees. According to an estimate from the nonpartisan Congressional Budget Office (CBO), the Government shutdown cost the economy \$11 billion. The CBO also projects a slowdown in economic growth as the damage of the shutdown is becoming clearer by the day. When the Government shutdown in 2013 for over 2 weeks, it took the FAA years to recover fully. How long it takes to recover from this shutdown, the longest in history, remains uncertain, especially with the threat of another Government shutdown looming on the horizon. If another shutdown should occur, it will only multiply the effects and impacts on the country.

CLOSING

In closing, PASS emphasizes that every day the Government is shut down and FAA employees are impacted, the aviation system is gambling with aviation safety.

The U.S. aviation system is a well organized, cohesive unit, with all parts working together. As with any functioning system, removing one section or placing unwarranted stress on a particular area will result in weaknesses with the potential to derail the entire system. Without support staff in place, facilities would not operate at an optimum level; without technicians in place, controllers would not be able to perform their job; and without inspectors in place, the aviation system could potentially be less safe and would certainly be less efficient. The full team needs to be on the job, free of unnecessary burdens unrelated to the mission.

Aviation plays a critical role in today’s economy and delivers invaluable services to the flying public and the military. The FAA is simply not operating at full potential during a shutdown. The flying public should not be subjected to unnecessary risk due to political disagreements. The situation must not be repeated. While appropriators have assured that the FAA receives full funding in recent years, congressional disagreements have resulted in uncertainty. PASS calls on those in power to reach a funding deal that will prevent another government shutdown and fully fund the Department of Transportation and the FAA.

Mr. LARSEN. Thank you, Mr. Perrone.

I now recognize Mr. Calio for 5 minutes.

Mr. CALIO. Thank you to Chairman Larsen, Ranking Member Graves, Chairman DeFazio, and Ranking Member Graves, for the opportunity to testify today. On behalf of Airlines for America and its members, the country’s leading passenger and cargo carriers, we appreciate the committee’s leadership and focus on this timely issue of shutdown impacts and potential solutions.

We also want to sincerely thank those Federal employees who went to work every day during the partial shutdown even though they were not being compensated. This includes our partners at the FAA, TSA, and CBP. Despite significant and prolonged hardship, they kept the U.S. aviation system operating and they ensured the safety and security of the traveling and shipping public.

We all are extremely grateful, and our association and carriers were pleased to be able to make significant contributions to the nonprofit groups that were assisting Federal employees as they suf-

⁷Department of Transportation, Office of the Assistant Secretary for Budget and Programs, and CFO, “Operations During a Lapse in Annual Appropriations Plans by Operating Administration,” December 2018 (revised as of January 11, 2019).

ferred through this hardship. Chairman Larsen, as you noted, and Ranking Member Graves, as you noted, this is at least the fourth shutdown that these workers have suffered since 2011, through two different administrations.

I know we are here to memorialize the impacts of the shutdown, and we should. But our hope is that we come out of this united in an effort to make sure that this never happens again. That should be our goal for today and going forward.

So Chairman DeFazio and Chairman Larsen, we want to thank you specifically for your leadership in putting forward a solution that would keep the FAA fully funded and operational with paid employees, thereby alleviating the serious impacts repeatedly experienced by the entire aviation industry.

H.R. 1108, and Chairman DeFazio, your past efforts to redirect diverted TSA revenues, are greatly appreciated. And frankly, there is a silver lining here. Everyone at this table supports the legislation, and the entire industry is galvanized and united as never before.

I would be remiss not to mention and thank Secretary Chao at the Department of Transportation and Acting Administrator Elwell for all they did to guarantee that the FAA continued to operate safely—and I stress safely—and as efficiently as possible for the traveling and shipping public.

For air travel, the impact of the shutdown was particularly acute. While my written testimony contains a broader list of impacts that the shutdown had on our industry, and both Mr. Rinaldi and Mr. Perrone have laid forth many of those impacts, I want to mention just a few.

Alaska Airlines had a delay in the start of commercial service from Paine Field in Washington, forcing already booked travelers to go back through Seattle. Southwest Airlines had new service to Hawaii; it has been delayed. That means less competition and fewer options until the airline can gain FAA approval, which is now delayed.

Federal inspectors were not being paid, reducing the amount of oversight of the industry. Hiring new pilots into the workforce and promoting existing pilots was also frozen since the FAA was not able to process the required checks nor issue new pilot certificates. This is particularly harmful to the regional airlines, who are having workforce issues.

I endorse everything Mr. Rinaldi said. I cannot say it any better about the impact on the air traffic controllers.

Just a couple more overt impacts that are not that visible to the public. New planes were not able to be put into service. Collaborative planning for the summer season, which takes place every year and is critically important to how we handle convective issues in the summer, just like snow in the winter, has not taken place and is behind schedule. We will feel the impact of that come this summer. We won't realize it has happened because of the shutdown.

So with that, I am going to move on and just say, in closing, we have talked about NextGen. The start and stop on NextGen is considerable. Every time the Government shuts down, we have to turn off these projects. It has a real impact, and it is cumulative over

the years, and you cannot make up. You cannot just flick the switch back on. This most recent shutdown? It is over one-twelfth of the entire year.

So again, Mr. Chairman, members of this committee, we cannot allow this to happen again. We have got a \$6 billion trust fund. The money gets paid into that trust fund whether the Government is operating or not. We ought to move forward and find a solution to this. Your legislation is a start. A4A will support any solution that works so that we do not have to worry about another shutdown.

Thank you for your time.

[The prepared statement of Mr. Calio follows:]

Prepared Statement of Nicholas E. Calio, President and Chief Executive Officer, Airlines for America (A4A)

Airlines for America appreciates the opportunity to testify today on the impacts of the most recent partial Federal shutdown. On behalf of our member companies, I first would like to acknowledge and sincerely thank the dedicated employees at the Department of Transportation (DOT), the Federal Aviation Administration (FAA), the Department of Homeland Security (DHS), the Transportation Security Administration (TSA) and the U.S. Customs and Border Protection (CBP). Despite significant and prolonged hardship, they kept our aviation system operating safely and minimized disruption. We are extremely thankful for their efforts and desperately hopeful that neither their professionalism nor their livelihoods will be unnecessarily put to the test again just 2 short days from now.

Chairman DeFazio and subcommittee Chairman Larsen, I also would like to specifically thank you for your leadership in trying to find solutions that would alleviate many of the impacts felt by the aviation community and the traveling and shipping public. Your most recent legislation (H.R. 1108) and your past efforts to redirect diverted TSA revenues are greatly appreciated. Moving ahead, we look forward to working with you to find collaborative and practical solutions that effectively address shutdown related impacts.

Additionally, I would like to recognize Secretary Elaine L. Chao of the DOT and Acting Administrator Dan Elwell of the FAA for their leadership. Their decision to call back safety professionals who would have otherwise remained furloughed, was critical to the operational needs of the U.S. aviation industry and, more importantly, the needs of the traveling and shipping public who sustain it.

SHUTDOWN BACKGROUND AND IMPACTS

This committee knows that shutdowns are not new, and they are not a rare phenomenon. In just the past decade, the FAA has been subjected to several partial or Governmentwide budget reductions and shutdowns.

- In July 2011, the lapse in FAA's authorization caused the FAA to stop work on numerous projects including NextGen modernization projects.
- In April 2013, the Governmentwide sequester caused the FAA to furlough air traffic controllers resulting in massive delays throughout the ATC system and the cancellation of hundreds of flights, impacting hundreds of thousands of passengers.
- In October 2013, the Government shutdown resulted in additional FAA employee furloughs.

The airline industry relies upon the FAA to provide critical safety and operational oversight through approvals of appropriate operational and maintenance specifications. The recent shutdown impacted A4A member airlines in several operational areas from complying with new safety requirements, bringing new aircraft into operation, approvals for new service, flight crewmember certification and checks, training, and the longer term planning for operations and Air Traffic Management modernization. While not exhaustive, below is a compilation of some of the impacts of the most recent shutdown. These examples primarily focus on the short-term immediate impact of the shutdown, but the ramifications of the shutdown, compounded by previous shutdowns, will have dramatic and unforeseen repercussions in the long term.

- *New Operations*—The shutdown resulted in the delay of new authorizations necessary for expanded service. As an example, the lack of FAA approvals has adversely impacted the ability of one carrier to initiate a new extended overwater (ETOPS) route.
- *Aircraft Deliveries/Adding New Aircraft to Operations Specifications (OpSpecs)*—The inability to obtain FAA approval for bringing new aircraft online delayed member airlines' ability to serve customers with new aircraft offerings, and the associated improvements in operational efficiencies, reduced environmental impacts and introduction of advanced technology.
- *Severe Weather Planning/Operational Collaboration*—Based on the commitment by the FAA staff, the shutdown did not, for the most part, adversely affect the Agency and aviation community daily efforts to coordinate the effective allocation of National Airspace System resources. However, operational reviews of what could be done differently did not occur.
 - Looking ahead, we are concerned that the planning process essential for responses to the summer season did not begin. This delays the foundational planning needed to address convective weather that impairs spring/summer operations based on analysis of strategies from last year. It also delays much needed reports and planning associated with the status of staffing, evaluating impacts and timing of new routes as well as new training requirements. Roll-out to the stakeholders and the training process are significantly delayed.
 - The longer term effects of the shutdown may compound significant concerns about staffing and experience levels in key facilities, especially the Northeast Corridor. Our member carriers are warning that this could be a really bad summer for delays.
- *Training Programs Enhancing Safety*—Airlines were unable to receive FAA approvals for revisions to training programs, including complying with new FAA requirements such as Pilot Extended Envelope Training. This training is designed to improve the ability of pilots to address aircraft stall recognition and recovery.
- *Airworthiness Directives (ADs)*—Members of A4A were unable to complete certain ADs due to the inability to obtain FAA approvals for associated revisions to maintenance programs.
- *Voluntary Safety Reporting*—The disposition of voluntary safety reports under the Airline Safety Action Program (ASAP) was curtailed in cases where FAA participation was prohibited. ASAP enhances aviation safety through the prevention of accidents and incidents by encouraging voluntary reporting of safety issues and events that come to the attention of airline employees. ASAP is based on a safety partnership that includes the FAA and the airline certificate holder as well as the employee's labor organization. Without the participation of the FAA's representative, this program was limited in its ability to fully function and address safety concerns within the NAS.
- *Automatic Dependent Surveillance–Broadcast (ADS–B) Equipage*—The FAA was unable to approve Supplemental Type Certificates necessary to complete the updating of aircraft to meet the pending requirement for ADS–B equipage. The industry is on a robust initiative to install equipage to meet the FAA January 2020 mandate. Likewise, airlines were unable to gain FAA approval for associated OpSpecs.
- *NextGen—Air Traffic Control modernization efforts*—Because this is both a planning and implementation initiative, the shutdown has impacted near-term improvements and longer term implementations being supported by the industry essentially halting the development and operational testing of technologies for NextGen.
 - The shutdown is jeopardizing the improvements in the aviation system—capacity increases, predictability for passengers, reduction in flight times, decreases in emissions from the FAA investments of \$20B and the industry's comparable investments. It is directly impacting new technologies for traditional aviation and new users like commercial space and drones, U.S. global aviation leadership, and the path for leveraging new satellite systems that will improve safety.
 - The improvements in the Northeast Corridor, central to recent efforts by the NextGen Advisory Committee, are in jeopardy as a result of the shutdown. We face the potential of the FAA not being able to deliver on commitments of more effective and efficient metering of aircraft at Newark and LaGuardia Airports. There is doubt about the promised anticipated improvements in procedures along with pending improvement to high-altitude routes in question because of delays in EnRoute DataComm that are driven by operational bandwidth of FAA facilities.

CONCLUSIONS AND SOLUTIONS

We are here as an industry and stakeholder community representing more than 7 percent of the U.S. gross domestic product, \$1.5 trillion of economic impact, and more than 11.5 million jobs. We are here today to help develop, discuss and expeditiously implement or enact practical and agreeable solutions that will alleviate future shutdown scenarios.

Having many years of experience in Washington, I have witnessed a number of shutdowns in various forms and circumstances. They all have some common threads. They quickly expose the critical role our Government professionals play in many aspects of our lives that we simply take for granted as standard operating procedure. They are unnecessary. And they are avoidable. This is especially relevant and applicable when it comes to our Federal aviation assets and workforces, which are all supported in one form or another by direct taxes or fees collected from the industries they regulate or oversee.

We are in no manner downplaying the critical role of other Government agencies or employees impacted by the shutdown; what we do believe is that unique nature and funding structure of our aviation system should allow for efficient and effective budgetary contingency plans that would allow the FAA, TSA, and CBP to temporarily operate normally during a shutdown caused by lack of funding.

The most recent shutdown was quickly approaching an unsustainable and detrimental level, as was evidenced by the flight delays on the east coast and reports that a growing number of TSA officers resigned because of financial hardships due to the shutdown and a lack of pay on the day that shutdown ended.

As the pressures and strains on the system documented above are exacerbated by yet another oncoming shutdown this weekend, I predict we will quickly reach an unsustainable point in our system. We will, if we have not already, cause decades of both human and economic consequences that will hamper not only the potential of our system but also the capacity to operate in it—all to the detriment of the traveling and shipping public.

We implore all involved, please heed not only our warnings but the entire stakeholder community's warnings. This vicious budgetary cycle of stops and starts with little to no stability or predictability has simply got to stop. The traveling and shipping public and the dedicated Federal employees who protect and maintain our Nation's aviation system deserve continuity.

We appreciate the opportunity to testify and look forward to any questions. Thank you.

Mr. LARSEN. Thank you, Mr. Calio.

I now recognize for 5 minutes Sara Nelson.

Ms. Nelson?

Ms. NELSON. Thank you, Chairman Larsen, Chairman DeFazio, Ranking Member Graves, and Ranking Member Graves, for the opportunity to testify on the impact of the longest Government shutdown in our history. My name is Sara Nelson, international president of the Association of Flight Attendants, representing nearly 50,000 of aviation's first responders at 20 airlines.

Just last week I attended my annual safety and security training required for my qualifications as a certified flight attendant. And rule number one when performing safety-sensitive work is to remove all distractions and focus. Flight attendants artfully complete safety tasks, shifting on a moment's notice from the emotional intelligence our job requires to the total focus it takes to perform safety and security duties.

And we should talk about addressing the inadequate FAA minimum staffing regulations currently in place once we know our industry is on safe ground. Today, though, we must focus on the distractions created by the shutdown and the impact it had on running a safe and secure system.

For decades, those who want to privatize every Government program have vilified Government workers as nameless, faceless bureaucrats. But the truth is these are the people who keep us safe.

They are the people who live and work in our communities. If they cannot do their job, flight attendants cannot do our job. And no one gets out of this unscathed because aviation is what connects and moves our entire economy. This is about our safety, our security, and our jobs.

Shutdowns are never good. Our current experience is unprecedented. We can never allow it to happen again. Picture this: Airline pilots typically maintain what they call a “sterile cockpit” during takeoff and landing, when no communication is permitted between the cabin and the flight deck. This is to allow pilots to focus on the most difficult and task-intensive parts of the flight.

But during the shutdown, some pilots briefed flight attendants that there would be no sterile cockpit on their flight. They were so concerned that the shutdown had compromised security screening that they felt they needed to alter safety procedures so they could be informed immediately if there was a security issue in the cabin.

Air travel is a fully integrated operation that relies on Government and private industry working together. When any link in this chain breaks down, the whole system suffers. We still feel the shock and horror of losing our flying partners because of gaps in security. We never shake that grief, nor the loss we have experienced for years with furloughs and bankruptcies.

Safety and security is nonnegotiable. It is critical that Washington stop the threat of day 36 and take steps to ensure this never happens again. We hope that does happen this week.

AFA fully supports the proposed Aviation Funding Stability Act of 2019. This legislation makes sense because there is absolutely no argument to close the Government when funding exists, specifically related to the functions of the FAA. And we urge immediate action on this along with all of our colleagues.

Still, we have seen that aviation relies on many areas of Government to keep us safe. We call on lawmakers to ensure Government workers are never locked out again. We also worked with this committee to lock in the FAA Reauthorization Act of 2018, including critical issues that matter for safety of flight attendants, pilots, and our passengers.

The shutdown stopped implementation of this bill. Flight attendant fatigue exists today. The bill includes improved rest, along with implementation of a fatigue risk management plan, to close this safety loophole.

Evacuation standards for certification of aircraft do not take into consideration the current cabin environment for safe evacuations. Secondary cockpit barriers are required to be installed on all new aircraft to help thwart an attempt to breach the flight deck and end the absurd policy of expecting flight attendants to serve as that physical barrier.

The bill addresses these issues, too, along with sexual assault prevention, reporting, and response, among hundreds of other safety initiatives. Again, none of this has been implemented, and the shutdown made it impossible to move forward with accountability.

Flight attendants started to experience the economic impact of the shutdown, as did our communities. For example, delaying the Paine Field opening to commercial traffic caused flight attendants

to lose flying, lose pay, and the same is true for pilots and other workers.

In addition, the economic impact to Everett includes cancellation of over 600 crew room overnights in hotels. This also means other travelers are not staying in those hotels, eating at nearby restaurants, using transportation, or otherwise spending in the community. Many airlines' flights were canceled because the FAA could not sign off on delivery of aircraft, more work lost.

This was the tip of the iceberg, though. Eleven million Americans who do work related to our industry were in jeopardy. This hampered our ability to compete with the world, and it created damage that may last for years.

There is bipartisan support to keep the Government open with stable, long-term funding. Americans overwhelmingly support this. If Washington will not put an end to this crisis, we will take action to save lives and protect U.S. aviation.

I would be happy to answer any questions. Thank you again.
[The prepared statement of Ms. Nelson follows:]

Prepared Statement of Sara Nelson, International President, Association of Flight Attendants—CWA, AFL-CIO

Thank you Chairman DeFazio, Chairman Larsen, Ranking Member Sam Graves, and Ranking Member Garret Graves for the opportunity to testify on the impact of the longest Government shutdown in our history. My name is Sara Nelson, international president of the Association of Flight Attendants—CWA, AFL-CIO (AFA), representing nearly 50,000 of aviation's first responders at 20 airlines.

Last week I attended my annual safety and security training required for my qualifications as a certified Flight Attendant. Rule No. 1 when performing safety-sensitive work: remove all distractions and focus. Shutdowns are never good. Our current experience is unprecedented. Almost 2 million workers were locked out or forced to work without pay for more than a month. Others have been going to work when our workspace is increasingly unsafe. The entire airline industry is in jeopardy. No one will get out of this unscathed because aviation is what connects and moves our entire economy. Lawmakers and people in Government know that. Yet somehow, we are here discussing the 35-day nightmare for Federal workers and those of us who count on them to keep us safe.

Picture this. Airline pilots typically maintain what they call a "sterile cockpit" during takeoff and landing, when no communication is permitted between the cabin and flightdeck. This is to allow pilots to focus on the most difficult, and task-intensive, parts of the flight. But during the recent Government shutdown—the longest in our Nation's history—some pilots briefed flight attendants that there would be no sterile cockpit on their flight. They were so concerned that the shutdown had compromised security screening, that they felt the need to alter safety procedures so that they could be informed immediately if there was a security issue in the cabin.

This is just one of the many chilling stories I heard in recent weeks from flight attendants and the pilots we fly with. The shutdown put our lives and livelihoods in danger, risked the safety of everyone who flies, and threatened our entire economy.

Many Americans breathed a sigh of relief when the shutdown ended, assuming that the crisis had passed. But things will only get worse if the shutdown continues into day 36 on February 16.

Flight attendants are not Federal workers, and people have asked why we are so outspoken on this shutdown. It's simple: aviation doesn't work without Federal workers. Air travel is a fully integrated operation that relies on Government and private industry working together. When any link in this chain breaks down, the whole system suffers. We still feel the shock and horror of losing our flying partners because of gaps in security. We never shake that grief, nor the pain we experienced with furloughs and bankruptcies that erased retirement security, required us to work harder for less, and spurred many stories of personal loss.

We need air traffic controllers to be fully rested and able to focus on their jobs, not worried about losing their homes. We need transportation security officers tuned in to their morning briefing, not wondering if the food pantry will still be stocked when he gets off his shift. We need the intelligence community on the job to identify threats and stop them, not worrying about the means to care for their own kids. We need the Coast Guard flying out over our waters with full view of what's ahead, not just over our borders to serve as the last line of defense.

Safety and security is nonnegotiable. It is critical that Washington stop the threat of a day 36 and take steps to ensure this never happens again. AFA fully supports the proposed Aviation Funding Stability Act of 2019 which would allow the FAA to keep all of its programs running and all of its employees working by drawing from the Airports and Airways Trust Fund during any lapse in typical Government appropriations. This legislation makes sense because there's absolutely no argument to close Government when funding exists specifically related to the functions of the FAA. Still, we've all seen that aviation relies on many areas of Government to keeping flying safe: DHS, DOT, CBP, State, Justice, FEMA, FDA, EPA. We call on all lawmakers to ensure Government workers are never locked out again.

If the shutdown continues, we won't know when or where problems may happen. That's why my union, along with other aviation unions, warned that the risk to aviation posed by the shutdown could not even be measured. Because of the disruption of key Federal systems that support the operation of the airline industry, air travel could be disrupted at any time, anywhere—and that's not even counting the damage if there's a serious incident.

Flight attendants are aviation's first responders and the last line of defense for aviation safety and security. We take our responsibility seriously. That's why, through our unions, we've fought to ban smoking on planes, to keep knives out of the cabin, and so much more. Now, we are once again standing up for safety and security.

We also worked with this committee to achieve long-term authorization for aviation to improve further upon, outside of this current environment, the safest transportation system in the world. The FAA Reauthorization Act of 2018 included critical issues that matter for the safety of flight attendants, pilot, and passengers. Flight attendant fatigue exists today. The bill includes improves rest along with implementation of a Fatigue Risk Management Plan to close this safety loophole. Evacuation standards for certification of aircraft do not take into consideration the current cabin environment for safe evacuation. Secondary cockpit barriers are required to be installed on all new aircraft to help thwart an attempt to breach the flight deck and end the absurd policy of expecting flight attendants to serve as that physical barrier. The bill addresses these issues too, along with sexual assault prevention, reporting and response—among hundreds of other safety initiatives. None of these things have been implemented though and the shutdown made it impossible to move forward with accountability.

Flight attendants started to experience the economic impact of the shutdown, as did our communities. Airlines had scheduled flight to a new commercial destination, Paine Field (PAE), as of February 4, 2019. Horizon flight attendants had schedules reflecting this flying in February, but this work is now canceled. Flight Attendants who had PAE flying were given the options to sit reserve or take time off without pay. Monthly guarantees were reduced. The company stated in a memo to AFA that there would be a negative financial impact on affected Flight Attendants when there isn't any open time to replace the removed flying. While AFA is disputing the lack of pay protection, the immediate impact is felt by these flight attendants.

In addition to the lost wages and per diem to the Horizon Flight Attendants, the economic impact to Everett includes cancellation of over 600 crew overnight hotel rooms. The total lost revenue to the Everett community is unknown as other travelers also aren't staying in these hotels, eating at nearby restaurants, using transportation, or otherwise spending in the community.

At other airlines halted approval aircraft caused canceled flights and less work for flight attendants. This was the tip of the iceberg. If air traffic controllers who are eligible to retire decide that is the only option they have to provide for their families, a significant portion of airline capacity will be grounded. This will result in massive layoffs for flight attendants and directly harm the 11 million Americans who do work related to our industry. It will hamper our ability to compete with the world and it may create damage that lasts years. The consequences for all of our communities is enormous.

CLOSING

There are serious issues we need to debate as a country, but our democracy and economy only work when the basic functions of our Government are in place. It is immoral to put American lives in danger with reckless political games. We cannot allow our airline industry to be decimated by continue the shutdown for day 36 and beyond.

There is bipartisan support to keep the Government open with stable, long-term funding. Americans overwhelmingly support this solution.

As I close, I must leave you with this: if Congress ignores the will of the American people and takes us to day 36 of the shutdown, flight attendants will not risk the lives of our colleagues and our passengers.

We have a duty to protect ourselves and the American people from danger. Working people have power when we come together. If Congress chooses the chaos of a continued lockout, we will use that power. If Congress will not put an end to this crisis, we will take action to save lives and protect U.S. aviation.

I would be happy to answer any questions.

Mr. LARSEN. Thank you, Ms. Nelson.

I now turn to Mr. Peter Bunce, and recognize you for 5 minutes.

Mr. BUNCE. Chairman Larsen, Ranking Member Graves, Chairman DeFazio, and Ranking Member Graves, thanks for having me here today. For those Members that are new to the subcommittee, GAMA represents those that make the actual aircraft itself—the engines, the avionics, large maintenance, repair, overhaul facilities, and training providers. And we are a global association.

If you look at what we have done over the last 10 years, working very hand-in-hand with our colleagues, Mr. Perrone's organization, along with this committee, we have implemented certification reform that, without, would have absolutely devastated our industry during this shutdown.

So we are very thankful for the cooperative way we have worked with this. And I want to just echo what my colleagues here have said at the table. The legislation that has been put forward with the Aviation Funding Stability Act is something that has united the industry that I have not seen in the time that I have been at the association. And the only reason that we only had forty logos on the letter that you saw yesterday was just we did not have time—we wanted to get it out before this hearing, because there would have been many more. So you have universal support for this legislation going forward.

Now, because we had the certification reform, we were able to still function during the shutdown. But that does not mean that it did not have significant impact to the manufacturers and maintenance providers. And I want to give you just two quick examples, and I will use one from Louisiana.

So you have a rotorcraft company that provides emergency medical support throughout the Nation. And in fact, here in Washington, DC, those that we hear in the Life Flight helicopters were provided by this company. They do supplemental-type certificate modifications to these aircraft so that they can go ahead and do it.

They were stalled. They were not able to get these aircraft to market. You have to make bets, as a manufacturer or a supplier, that you are going to be able to deliver product to your customer on time; if you do not, you default on those contracts. So that has significant impact, and it ripples through the system.

Another example in Washington State: In the central part or western part of the State, we have a manufacturer making small

aircraft. In fact, it is still fabric-covered. And the impact on them was cascading all during the shutdown. So they could not move airplanes that were already produced off the ramp to foreign buyers that bought the aircraft because validations all have to go through the FAA, and they were all stalled.

When they go and they make an aircraft and they drill a hole, if the hole is mis-drilled and it is a little bit larger, then you have a deviation from the type design and you have to get permission from the FAA to put a bigger rivet in it. That is how highly regulated our industry is, like no other. And so you have ripple effects all throughout the system.

So during the shutdown, we had very open lines of communication to the FAA leadership. And I just want to echo what my colleagues have said. Acting Administrator Elwell, Ali Bahrami, who runs the safety division, Teri Bristol on the air traffic control side, and up to Secretary Chao, they did everything within the limits of the law to be able to listen to us, and tried to mitigate as best they could.

But all of these effects were compounding. So when you go into a shutdown or start planning for it, and that happened this week, all of a sudden the activity starts to slow down because they have got to get ready for the shutdown. And then once the shutdown is over with, our calculation, which is borne out with the previous shutdown that Ranking Member Graves mentioned, is usually about 3 to 4 weeks for every 1 week of shutdown because you are not just having to clean out your inbox. You have got to keep pace of this increasing amount of activity that is coming at Mr. Perrone's people.

So the safety part of the FAA—we as manufacturers, a lot of us fly in the system and we touch Mr. Rinaldi's people all the time. And the selfless performance they did during the shutdown is so much appreciated. But Mr. Perrone's folks are, for us as manufacturers and maintenance providers and training providers, they are the unsung heroes because they sit there and they allow us, with the safety oversight that permeates every single thing that we do. And without them to be able to approve each and every part of the process, the system starts to break down and the recovery becomes very long.

So now moving forward, it is very important for us as manufacturers to implement what you all did last year in the 2018 FAA Reauthorization Act. There continues to be significant reforms out there in certification, and we had a lot of lessons learned during this shutdown.

We learned that delegated authorities, or ODAs, that are managed in one part of the country are not managed the same in others. So there are a lot of things that we will be able to capture. But I would ask this committee, as we move forward, these reforms are important and we need to keep them online because we have tremendous new equipment coming into the system. A lot of attention is paid to commercial drones, but we have got on-demand air mobility coming very quickly. In commercial space, we are going to see launches this year on significant commercial space operations.

So we need to make sure that the pressure remains and the oversight maintains on the FAA to be able to go and drive last year's reforms across the goal line. Thank you.

[The prepared statement of Mr. Bunce follows:]

Prepared Statement of Peter J. Bunce, President and Chief Executive Officer, General Aviation Manufacturers Association

Thank you, Chairman Larsen and Ranking Member Graves. My name is Pete Bunce and I am president and CEO of the General Aviation Manufacturers Association (GAMA). On behalf of GAMA and over 100 of our member companies, we look forward to working with you and the members of the House Aviation Subcommittee in the 116th Congress on key aviation items. We also look forward to working with House Transportation and Infrastructure Committee Chairman Peter DeFazio and Ranking Member Sam Graves and the membership of the committee at large. Thank you for convening this hearing today which will be vital to understanding the short- and long-term impact of the recent partial Government shutdown on the Federal Aviation Administration (FAA) and the aviation industry, and how best to recover from it.

GAMA exists to foster and advance the general welfare, safety, interests, and activities of the global general and business aviation industry. This includes promoting a better understanding of general aviation manufacturing, maintenance, repair, and overhaul and training and the important role these industry segments play in economic growth and opportunity, and in facilitating the critical transportation needs of communities, businesses, and individuals. The general aviation industry provides \$219 billion in economic output overall to the U.S. economy and employs over 1.1 million people.¹

I appreciate the opportunity to speak about the impact of the shutdown on aviation manufacturing. However, I also want to make it clear that GAMA recognizes that these impacts go far beyond our critical part of the aviation industry. We appreciate and respect the work of all Federal employees, especially those working to promote the safety, security and economic health of the aviation system, and realize how difficult this recent period has been for the Federal workforce and those who contract and partner with the Federal Government. Our industry is one which relies on the professionalism, focus, and success of all aviation employees, both public and private sector. The U.S. aviation system is an extremely complex and interconnected one which provides the highest levels of safety and the largest and most robust air services network in the world—when significant stress is imposed on one part of this interdependent system, there is negative impact on all.

I also want to recognize the great work of the House Transportation and Infrastructure Committee in enacting a 5-year FAA Reauthorization bill into law last year (P.L. 115–254). The law was rightly hailed at the time as providing needed stability and direction for the FAA and the aviation system and community. This recent shutdown was a challenge to that premise and we hope the subcommittee will work with us, FAA, and DOT to recover and move forward on critical initiatives which seek to strengthen and improve the efficiency of our national aviation safety system and enable continued growth and development of new aircraft and technologies. From GAMA's member companies' perspective, the certification reforms pushed by Congress and being implemented by FAA and industry have had a positive impact on safety oversight and industry health during normal operations, but also mitigated some of the debilitating impacts in this shutdown. Congressional leadership and oversight have been critical to the progress we have collectively made since 2012 and those efforts need to continue and be strengthened.

We also ask the administration and Congress to act in a bipartisan way to make certain that we do not have another shutdown—either a partial one in the next few days or in the future. Either scenario will have extremely harmful effects to the aviation industry. Recovering from the recent Government closure will be both lengthy and complicated, and any subsequent shutdown of the FAA will multiply these negative impacts on small businesses, the economy, and safety. The strength of aviation manufacturing's economic contribution is dependent on a fully operating and functioning FAA being able to undertake certification, maintenance, pilot training, and other regulatory actions and approvals in order to bring aircraft, engines,

¹ *Contributions of General Aviation to the US Economy in 2013*, PricewaterhouseCoopers, February 11, 2015.

avionics, and other new technologies and products to the U.S. and global marketplace and to properly maintain the existing fleet.

For this reason, we applaud the leadership of Chairman DeFazio and Ranking Member Larsen and vigorously support the Aviation Funding and Stability Act of 2019 (H.R. 1108). GAMA is joined by numerous other aviation stakeholders in support of this legislation, including many in the general aviation community. The purpose of this legislation is simple—to enable the FAA to leverage and temporarily draw from the Airport and Airway Trust fund in the event of a future Government shutdown. If enacted, H.R. 1108 would provide targeted stability for the aviation system to function, including air traffic and critical elements of aviation safety—which includes certification, maintenance, and training—while ensuring congressional oversight. We look forward to working with members of this committee, and other stakeholders who share jurisdiction, in a bipartisan way to advance the Aviation Funding and Stability Act of 2019 in the near term and mitigate the consequences of any future Government shutdown on the FAA.

THE SHUTDOWN’S IMPACT ON AVIATION MANUFACTURING, MAINTENANCE, AND TRAINING

Aircraft Certification

By way of background, the FAA Certification process is structured to establish, demonstrate, and verify compliance with safety standards for design, manufacturing and performance of aircraft as well as to monitor and sustain the safety of aircraft once in service. During the shutdown, many GAMA member companies could not deliver products or were forced to stop development of new products or technologies because FAA personnel were unable to perform key certification activities. This halted the FAA review of design approvals, flight tests, development of new or revised policy/guidance, and approval of issue papers that are critical to establishing requirements for aircraft and other product certification.

Manufacturers could not start any new certification projects other than routine minor FAA pre-approved activities. This was particularly difficult and harmful for small businesses, who rely on an ongoing stream of new business activities and their ability to innovate and attract new customers. Before any new certification project can start, including development of a new and improved component or part, upgraded software, or cabin modification, FAA must first establish the applicable airworthiness requirements and approve the certification plan on how the manufacturer will show compliance.

Whenever there is a technical issue such as a new design feature or means of compliance, it requires FAA to approve an ‘issue paper’ that needs to be processed across many different engineering, standards and policy offices. Several GAMA member small businesses were hit particularly hard by the shutdown because they simply could not continue their business without FAA coordination and were forced to make very difficult and significant business choices, because they could not predict when FAA might be available to resume their activities or if FAA would accept any of the work activity they completed. Manufacturers and their FAA Aircraft Certification offices were able to manage these effects somewhat through advance planning of ongoing and upcoming projects prior to the shutdown and by utilizing, when available, delegation systems and authorities.

Validation and Global Leadership

Aviation is a global industry. Once an aviation product is approved by the FAA, this product must also be validated or accepted by foreign aviation authorities to enable export of U.S. manufactured aircraft and equipment. Likewise, for import of aircraft, many of which contain significant U.S. content, and components approved by non-U.S. authorities, FAA must validate their certification design approvals. During the shutdown, all validation programs between the FAA and other international aviation authorities were halted. As a result, the export and import of aviation products was negatively impacted. This not only affected some current deliveries, but there are potentially months of delay to many validation programs with significant impact on aircraft deliveries that could ripple throughout the aviation system of suppliers, operators, training and maintenance providers.

Additionally, key international meetings critical to establishing global standards and enabling industry growth and exports were canceled or took place without FAA participation, diminishing FAA and U.S. leadership in the international arena.

Operating Authorizations

Following the delivery of an aircraft, an operator must also obtain the FAA’s authorization to operate that aircraft. During the shutdown, these authorizations for general aviation aircraft were halted. The FAA also authorizes specific functions for

an operator to use such as allowing data link communication, Performance-based Navigation (PBN), and Electronic Flight Bags. These authorizations were stopped as well, limiting the efficiency and use of improved technology and procedures by operators and their aircraft.

Repair Stations and Recurrent Certification

FAA also regulates and oversees the work done on aircraft and other products at maintenance and repair organizations. This includes the need for periodic, mandatory certification which were threatened given the agency could not perform needed safety inspections. At the same time, FAA could not inspect or certify repair station certificates for initial issuance, transfer, or approval for changes to grow their businesses.

By example, one company planned to open a new facility after the holiday break. They had moved all their personnel and equipment and completely vacated their old facility. The new facility could not open because FAA was not able to perform an inspection which hampered the facility's operations and planned new hiring.

Training

Another important part of the broader aviation safety system is those who provide training. During the recent shutdown, the GAMA member flight training providers found that the FAA was unable to approve training manual revisions, authorize training center evaluators, and qualify flight simulators.

Without these approvals, training centers could not provide required training for pilots and this delay will likely be felt through the spring as operators and training centers work to make up a backlog of rescheduled training events that had to be canceled.

For most businesses, it is not just one issue they faced during the shutdown but multiple ones. For instance, a small company in Washington State was unable to get FAA concurrence for any production changes that fall outside limited parameters. These kind of changes occur on a regular basis for this and other businesses. Additionally, this particular company has made significant investment in new product development and is seeking a new Type Certificate and several Type Certificate Amendments, each viewed as vital to maintaining their competitiveness, which were each impacted. Moreover, they also have applications for type certificate validations in several countries and the shutdown significantly affected the company's ability to move into new markets. As a result, this small company is left with new challenges in an already competitive and difficult global marketplace coupled with the threat of more uncertainty.

Another example can be found in family owned Emergency Medical Service (EMS) aircraft operator and helicopter completion center that employs nearly 1,000 aviation professionals, 250 of whom reside in the State of Louisiana where they are headquartered. This privately held company also serves as a training provider for 140 EMS aircraft in 25 States, plus the District of Columbia, that provide a critical link for rural healthcare delivery and a vital lifeline in times of emergency.

Due to the Government shutdown, this company was unable to complete delivery of at least four helicopters contracted to be placed in service as EMS Medevac helicopters. These deliveries are dependent upon the issuance of a Supplemental Type Certificate (STC) from the FAA for a Single Pilot Instrument Flight Rule (SPIFR) equipment installation. FAA was scheduled to begin ground and flight testing in December, but these were postponed due to a 1-day observance honoring the passing of former President George H.W. Bush and, unfortunately, rescheduled to early January. That testing did not take place due to the shutdown and still has not been completed.

The resulting impact of not receiving this STC in a timely manner forced the company to default on contracts and not provide their new technology for lifesaving activities. A version of this story was repeated many times during the shutdown for other life-saving vehicles given the lack of FAA Flight Standards field personnel to provide pilot check airmen certifications, route checks, and, approvals for modifications.

In detailing these impacts, it is obvious there is a compounding and cascading effect of the shutdown on the overall aviation sector. At every point, whether it was certifying or modifying products, maintaining and repairing aircraft and systems, keeping the training and approval system for new and existing pilots on schedule, or the ability of operators to put into service and maintain new aircraft, the health and vitality of U.S. aviation manufacturing and the overall aviation system was weakened.

AVIATION AND MANUFACTURING INDUSTRY RECOVERY

During the shutdown, GAMA continually surveyed our member companies to inquire about impacts and timelines for recovery. We received weekly assessments of shutdown impacts and ascertained that for each week the shutdown continued, there would be a 3- to 4-week impact on aircraft and product certification programs. This calculation is consistent with what GAMA member companies reported during previous closures of the FAA, though specific impacts depend on how far a company program is into the certification process and the extent of their delegated authorities. The extended length of residual shutdown impact is due to the backlog of tasks that only FAA can perform. While FAA certification offices are working to address this backlog, the day to day pace of manufacturing and maintenance activities accompanied by the start of new projects that FAA must also support compounds and complicates the recovery effort.

The Government shutdown will have a lingering negative impact upon certification activities for the foreseeable future. As noted previously, key activities, such as flight testing of new aircraft, which require specific expertise and involvement by the FAA are tightly scheduled. These activities are in continuous demand and losing over a month of activity means that FAA personnel who were unable to do the required flight test because of the Government closure need to be integrated back into the flight test schedule. As a result, development program timelines will be pushed significantly to the right. This is an incredibly complex allocation of limited FAA resources and imposes a burden for FAA management and its workforce to bear. Even under the best circumstances, we anticipate disruptions will continue for months. In order to work through the backlog of activities, it will be important that FAA prioritize its system safety oversight activities and focus its limited resources on safety critical activities and tasks that only they can perform.

As with the other associations here today, we also worry about the morale of Federal employees and the impact the Government closure has had on the workforce. The inspectors, engineers, and leaders we work with are skilled and talented and can look to alternative private sector opportunities that are currently abundant. Retaining these employees is critical to moving forward from a scenario they did not create.

During both the shutdown and the reconstitution, we have worked with Acting Administrator Dan Elwell and his leadership team to assess the impact of Government closure limiting FAA activities for the manufacturing and maintenance sector and identify opportunity for mitigation. We greatly appreciate the fact that FAA leadership did what they could within the limits of the law to identify available flexibilities and correctly posture the safety directorate to maximize productivity during the recovery phase. Unfortunately, the ability to diminish impacts was limited but it did allow us to keep our membership informed, address issues where possible, and help companies with their post shutdown planning. This communication was also vital to ensuring that FAA remained in its critical system safety oversight role.

Since the shutdown ended, we have worked to ensure FAA understands the most prominent and immediate issues that have emerged from a GAMA member company perspective and provided recommendations to help the agency prioritize activities to move forward efficiently and expeditiously.

We understand FAA's initial focus is on internal coordination simply to restore operations, review ongoing activities, and develop revised work plans and prioritize recovery initiatives. We have suggested actions that will relieve administrative burdens and focus on key efforts that will help FAA and industry return to normal activities as soon as possible. One suggested mitigation that the agency immediately acted upon was to extend designee and certification authorizations that have expired or will soon expire, facilitating full use of available delegation and bilateral agreements, and issuing the required operational authorizations so that new aircraft can enter service. These steps, and numerous others, will help both the FAA and industry focus their resources on those tasks that only FAA can perform such as: establishing certification basis, approving certification plans and issue papers, reviewing flight manuals, and conducting safety activities that cannot be delegated—rather than more routine tasks or activities that others have authority to undertake.

IMPACT ON THE FAA REAUTHORIZATION ACT OF 2018

The passage of this law was a significant victory for the industry, the economy, aviation safety, as well as the traveling public. When talking about the bill last fall, we highlighted key provisions that we believe need to be implemented fully, effectively, and in a timely manner. The shutdown significantly set the timelines back while causing economic damage to the aviation manufacturing industry. There will

be some in the bureaucracy that will want to use the shutdown as an excuse not to aggressively implement the reforms contained in last year's FAA reauthorization and we believe this underscores the important role Congress will play in oversight of FAA's prioritization of activities. Collectively, we have lost critical time because of this shutdown and it impacts both existing efforts and those on the horizon.

Last week the Transportation and Infrastructure Committee held a hearing focused on physical infrastructure which is critical to advancing transportation and economic development in this country. The success of aviation is also highly dependent on advancing and modernizing the regulatory structure and air traffic control system. Manufacturers large and small are developing incredible new technologies to more efficiently handle current traffic and safely integrate rapidly emerging entrants such as unmanned systems, electric vertical take-off and landing vehicles, civil supersonic aircraft, and commercial space vehicles.

The work this committee has accomplished, spurred on by its leadership to advance certification and regulatory reform, will greatly benefit these new markets and technological developments. These reforms, coupled with substantial FAA progress on key initiatives in the certification area, kept us functioning during the shutdown, but also makes clear the vital need for implementation of the 2018 law as we look toward the future of flight. I look forward to working with this subcommittee and the broader membership of this committee and Congress to prevent future shutdowns but also find ways to realize the promise of these important reforms to benefit aviation in the present and in the existing years ahead. Thank you, Chairman Larsen and Ranking Member Graves for convening this important hearing and we look forward to collectively working together to advance the safety and economic potential of the manufacturing and maintenance sector, and the broader aviation sector.

Mr. LARSEN. Thank you, Mr. Bunce.

We will now move to questions. I will recognize myself for 5 minutes. I just want to make a point about Mr. Bunce's last point. I hope one of our next hearings will be on U.S. innovation in the air-space, and will include discussion of these issues like air taxis and commercial space.

This committee needs to get more on top of those issues because aviation in aerospace includes flying by an airplane and flying in an airplane, but it is also beginning to include much more—these issues of drones, of commercial space, of air taxis. And we need to get on top of that. So appreciate you bringing that up.

Mr. Rinaldi, according to your testimony, classes resumed last week at the training academy in Oklahoma City. I say "resumed" because they were stopped during the recent shutdown. Can you describe how the closure of the academy affects the pipeline of new controllers and the ability to meet hiring targets this year, or any year we have a shutdown, for that matter?

Mr. RINALDI. Thank you for the question, sir. Yes. There are 22 classes up and running right now. Obviously, if we shut down on Friday, they will all go home again. That is horribly disruptive to the pipeline of getting controllers out to the facilities and start that 3- to 5-year process of apprenticeship.

There are limited spaces at the academy, and we are concerned that the agency is not going to be able to meet their hiring goal because it has been closed for 35—actually, it was longer than 35 days. And another shutdown would just close that pipeline for a long time.

Mr. LARSEN. So can you then—let's move to another question about retraining the controller workforce on DataComm, one of the technologies. Why would there be a need to retrain that workforce on DataComm when the FAA has already spent \$8 million on training? Why does that training need to be repeated?

Mr. RINALDI. DataComm is new technology which is pretty evasive, and they change the way that the controllers issue clearances back and forth from the pilots. It is something that needs to be fresh, and it is something you need to do every day. It almost needs to become second nature.

So as we went through 35 days of not training, as we approached the 45-day period, you have to do a full training process because the implementation just will not be smooth.

Mr. LARSEN. OK. Mr. Perrone, you mentioned with inspectors and technicians and the delay for them, from your perspective, is there any way for us to catch up or are we just going to have to trundle our way through months before we get caught up again?

Mr. PERRONE. Thank you. Yes. The problem is, during that 35 days, as was said, the industry continued moving forward. They continued to put aircraft in the pipeline. They continued to make sure they did their part. Our inspectors were not working, so they just had paperwork sitting on their desk, sitting in the inbox.

After they came back to work, and I know they came back a little earlier than the full 35 days, but they had to make up for that time, plus every day there is new information out there that they have to review. So it is going to take a long time.

And this 3-week period of uncertainty—is the Government going to shut down again? Is it not? The FAA had to move priorities around. They were not sure what they needed to do, and the industry had to let them know and work with them to figure out what is next.

So that is the problem, is now, like somebody said, turning on a switch back to work. Here we go. You continue to have the day-to-day operation plus the 35-plus days that we were sitting idle.

Mr. LARSEN. Thank you.

Mr. Calio, can you provide the committee with additional impacts to the airline industry during the shutdown? You mentioned some airplane deliveries as an example. Are there additional impacts?

Mr. CALIO. Sure. There were airworthiness directives that we could not get approved because the employees were not on the job to do it. Again, there was NextGen. There were all—if you look at how we fly, in trying to get online, we had planes that needed to be recertified. Those couldn't get back online.

Again, there are so many hidden impacts that are detailed in our written testimony. And those are the things we ought to be focusing on to stop from happening again because if we all agree, and I am the one who said it, you cannot just flip the switch back on and make these things happen.

So what we were doing, Mr. Chairman, was monitoring our airlines' short-term impacts, mid-term impacts, and long-term impacts. We were piecing and patching, as was the FAA and DOT, to try to ameliorate the short-term impacts. But as you look at it, it grows down the line. The mid-term becomes longer, and there's a buildup there, as Mr. Perrone said. And then the long-term keeps up.

We are still suffering from 2013. And every time we add to it, it is wrong, which is why the legislation that you have introduced is so important.

Mr. LARSEN. Thanks.

Ms. Nelson, other impacts of the shutdown, or any shutdown, on flight attendants?

Ms. NELSON. Flight attendants know that we were on the edge of facing a real disaster for our jobs. But more so, flight attendants were expressing extraordinary concern about safety and security. We have seen critical incidents, and we have seen those who wish to do ill will. And in each of those cases, we did not have any warning for it.

And what flight attendants were very aware of was that in those instances, if we had known, we would have pulled our friends off those flights. We would have told people not to go. We would have done anything that we could to avoid those situations. And they were saying to us, we have to act now because now we see that there are these gaps. And we cannot stand by and let something catastrophic happen when we know that we are setting ourselves up for that.

Mr. LARSEN. So you are kind of the first responder in the aircraft, and you are the last to know in these circumstances?

Ms. NELSON. We count on all of these people to keep us safe, to do their jobs. And when people come to the aircraft door, we are that last line of defense, and we are the first responder when something happens that goes wrong. But when we have a break in the chain of all of the safety layers that have to be in place to keep us safe, we are set up to fail. And we were saying that that is unacceptable.

Mr. LARSEN. Thank you.

Mr. Bunce, I will come back to you. I am sure others have questions for you. But I appreciate your comments on ODA and certification reform, so I would like to explore that a little bit later.

But I will now turn to Mr. Graves for 5 minutes.

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman.

Mr. Calio, I will ask you a question. A lot of discussion in regard to the testimony has been focused on safety, which obviously is an appropriate topic. Would your members fly planes with passengers on board if they have viewed a threat to safety?

Mr. CALIO. Never. And the way our system operates, it is a risk-based system. I think everybody on the panel would agree that the shutdown did introduce more risk into the system because some of the layers were missing in terms of oversight. That said, what the FAA does is they—and Mr. Elwell said this, Acting Administrator Elwell said this—what we will do is compromise efficiency for safety. And you saw that at LaGuardia finally, when it really—when the rubber really hit the road.

What they did was a ground stop because we will stretch the flights out, stretch out the flight times, and provide less flights. So less people fly. It's more inconvenient for passengers and shippers. And it affects business. It affects the economy. But never, never would we put a plane in the air if we considered it to be unsafe.

Mr. GRAVES OF LOUISIANA. Mr. Calio, thank you. And I really wanted to emphasize that point because there were a lot of comments on safety that were made. And I want to make sure that we are being clear to the public, the flying public, that—well, I made my comments opening up about the shutdown, and I am not going to reiterate those. I think it is inexcusable, what happened.

But I also think it is important that we do convey the safety factors or I guess the lack of risk that existed during the shutdown as a result of some of the efforts by the airlines and others.

Mr. Rinaldi, you made mention, too, of an incident in Philadelphia. I am disappointed the FAA is not here today, and I am looking forward to having much more robust conversations with them. Are you aware how much of that incident was a result of a pilot versus the controllers?

Mr. RINALDI. Well, that incident was the pilot lining up for a taxiway that is parallel to the runway. Sometimes from the cockpit it is very confusing. The equipment that I mentioned gave the controllers a heads up that they were outside the cone of the threshold of the runway, therefore giving us an alert.

Mr. GRAVES OF LOUISIANA. I just wanted to distinguish that pilots certainly were not—their pay was not affected by the shutdown. And if this was a pilot issue, then tying that back to the shutdown perhaps is a tenuous connection. But I just wanted to be clear.

Mr. RINALDI. Well, the point of that in my testimony was that equipment was deployed only at 6 airports, going to be at 13 additional airports if it was not for the shutdown, now delayed to the end of June. That was the point of my testimony.

Mr. GRAVES OF LOUISIANA. And Mr. Rinaldi, I think I share with you, and probably everyone on the panel, strong concern about the delayed implementation, the continued missed milestones of NextGen, the cost overruns, and other things. I know the full committee chairman has repeatedly made reference to this; I think my favorite line is when you called it “NeverGen.”

But this is a grave concern that we have, and something that Chairman Larsen and I have briefly discussed and looked forward to focusing on to help get that back on track and make sure that the full scope of NextGen is implemented in an appropriate timeframe and within an appropriate budget.

Another question: I mentioned earlier, and my math was wrong; I just looked at it again. I said that there were a number of shutdowns during the Carter administration. There were actually five shutdowns totaling 66 days.

Does anyone—and I am not asking anybody to show their ID. But anybody recall any impacts during those shutdowns, and perhaps impacts on the aviation industry?

Mr. RINALDI. For the Carter administration? I was in high school.

[Laughter.]

Mr. CALIO. I might be old enough, but at that time I was in law school and focused on other things.

Mr. GRAVES OF LOUISIANA. Great. Thank you.

I guess next question: Mr. Bunce, thanks for being here and it is good to see you again. Can you talk about how the shutdown impacted the integration of new technology such as unmanned aircraft, urban air mobility, and commercial space transportation into the NAS?

Mr. BUNCE. Absolutely. And especially with—we are calling it on-demand air mobility because my hope is someday that every rural community out there has a machine that is programmed to

go to a hospital, and that we can put an occupant in and it is going to fly to the hospital. And we are on the cusp of this being able to happen.

Back in 2015, we passed the Small Aircraft Revitalization Act unanimously by the U.S. Congress. And right now we are in that stage of trying to use those implementing rules to facilitate this new type of vehicle to be able to get into the airspace to certify it.

So when we can have Mr. Perrone's people available to work on being able to set the certification standards for those types of vehicles. It is delaying this. And make no mistake that there is tremendous international competition in this area. The work that is being done in Europe and in China is absolutely dramatic.

And my hope is that the U.S. stays, as Chairman Larsen mentioned, the gold standard. We are an aviation nation, and we have got to keep progressing forward to be able to certify these aircraft. So it does have a big impact.

Mr. GRAVES OF LOUISIANA. Thank you. I appreciate it. I yield back.

Mr. LARSEN. The Chair recognizes Chair DeFazio for 5 minutes.

Mr. DEFAZIO. Thanks. Mr. Rinaldi, there are very strict rules about your folks, just like pilots, not reporting to work when they are fatigued or ill and feel they cannot do the job properly. But wouldn't you say—you had a—A, it is a stressful job; B, we are understaffed, so people are putting in a lot of mandatory overtime; and then C, when you get like the example I had, with a younger controller doing mandatory overtime, feeling compelled to drive Uber to put food on the table, do you think—I mean, he may not have been fatigued at a level that he should have stayed home. But they are not at the top of their game. Right?

Mr. RINALDI. Certainly fatigue entered into the system. Sometimes individuals have a tough time identifying that they are too fatigued to come to work. And that might have been happening. We did see, as I said, some routine clearances where mistakes were being made because they were distracted.

But we were deeply concerned about what was going on in the control towers and the control rooms throughout the country about fatigue.

Mr. DEFAZIO. All right. Thank you. In addition, the extra stress. And then—

Mr. RINALDI. Oh, the stress was intense.

Mr. DEFAZIO. And Mr. Perrone, what about your people that are told they are not essential and told to stay home? How do they feel about coming back to work, and what is the new burden on them?

Mr. PERRONE. So the problem is not being essential personnel. I mean, everybody in the FAA does their job and keeps the system up and running. Again, the safest in the world, most complex. And to say you are not important for these 35 days, the morale was just tremendous that they just said, "Why should we stay? Why should we bother continuing to work if the"—

Mr. DEFAZIO. A lot of your people have technical expertise. Couldn't they find private sector jobs if they want?

Mr. PERRONE. Absolutely, especially the inspectors. They can go back to industry. And our technicians and workforce, they can go find other jobs because they have that unique ability to do that.

Mr. DEFAZIO. So if this uncertainty continues, is the future about whether these are stable, long-term jobs? You may have trouble getting qualified people to fill your openings.

Mr. PERRONE. Absolutely.

Mr. DEFAZIO. Yes. OK.

And Ms. Nelson, we have been discussing the safety issue. And just—I mean, TSA would limit lines. But again, a lot of them were driving Uber. They are having garage sales. They are checking their phone to see if they sold their table or TV yet.

I mean, did flight attendants have an overwhelming sense that things were not as safe as they could be?

Ms. NELSON. Flight attendants were seeing it every day when we would come to work and go through those security lines and talk with those security agents, who some of them did not have gas to get back and forth to their homes and so they were sleeping in their cars between shifts to make sure that they could keep the country moving.

And we have to really thank them because they stayed true to their oath to serve and protect all of us. Think if that, thousands of people who came to work to make sure that that could keep going when that same oath was not held by people in power.

And so yes, we saw every single day that there were distractions in safety-sensitive and security-sensitive work that don't need to be there, and created risk that we didn't need to have.

Mr. DEFAZIO. Thanks.

Mr. Calio, you talked about a whole lot of things that disrupted the industry. Can you quantify a number, how much, what the losses were? Damages?

Mr. CALIO. We can't. We have looked at it, Mr. Chairman. We defer to our members to quantify their losses. You have heard two mentioned, I think, \$25 million by one airline, \$15 million by another. I actually think the number is much greater. Those quantify losses in terms of flights, lost opportunities in terms of certifications not being made.

But the cumulative impact of all the things that everybody up here has mentioned add up to much, much more in terms of disruption to the system and what has to happen down the line. Also, we were taking our own employees off the line to help TSA employees and CBP employees. And so that all has an impact that I think is not readily quantifiable. Someone, of course, could come up with a number. I can't.

Mr. DEFAZIO. OK. Thank you.

Just in reference to statements that have been made, I was not here when Carter was President, either. I cannot quantify what happened then. But shutdowns are stupid no matter who is in the White House or who is in Congress, and they have got to end. I am not only introducing this legislation. I am on a bill that has been introduced in the House to say that all agencies would continue under continuing resolutions, in case we do not agree on appropriations and a budget in the future, at their current levels.

Obviously, some more powerful committee might oppose that because they think they are losing something in that case. I do not know. But it is a stupid way to get leverage in this town. This is not a partisan issue. And I invite all Members of the House on both

sides of the aisle to support this bill, move it through, and at least we can take care of one very important sector of the Government and our economy by passing this legislation. It is a self-funding agency. Why can't we expend funds during a shutdown?

With that, I thank the panel. I have got to go over to the other side where they don't do anything to have a conversation. Thank you.

Mr. LARSEN. Thank you, Mr. Chair.

Now we will move to other Members' questions. Just a reminder about the process: We go by seniority, seniority based on if you were here at the gavel. Then after that, if you come in after the gavel, you get in line based on when you got here.

So that makes Mr. Stauber from the great State of Minnesota next.

Mr. STAUBER. Thank you, Mr. Chair, and I appreciate the witnesses who are testifying. Mr. Rinaldi, I was in grade school, too, when President Carter was our President.

A couple of things I just wanted to reiterate. To Mr. Bunce, Cirrus Aircraft in Duluth, Minnesota, is the largest manufacturer of piston-driven aircraft. I spoke with them, and they had—the certificates were delayed in sending the aircraft out. They have now been backed up about 4 months because of this.

Can you talk to us about other general aviation manufacturers, some of their concerns, like Cirrus had? And by the way, Cirrus Aircraft employs 1,100 people in Duluth, Minnesota, in and around Duluth, Minnesota.

Mr. BUNCE. Well, thank you, sir. And Cirrus also delivered the most jets last year of any manufacturer out there with the new Vision Jet, so it is pretty exciting.

So take another company in Florida that provides other types of aircraft out there. They were within a week of furloughing because they couldn't get flight test people to be able to keep their programs going.

Another very large jet manufacturer, if you look at a major development program—I have testified in front of this committee before—the burn rate for a major program is about \$10 million a month. And so if you can't get the program to progress, like get flight test, what happens is those flight test people are now booked the next month with another company. So you don't just push everybody to the right. You go and you get the folks that were scheduled, and then you have to go several months later.

So it really is a burn rate where it's like lighting a match to the money. And that money could have been used to go ahead and hire more people as you ramp up production once you get your certification.

So it all has ripple effects for each one of the manufacturers when we have delays like that.

Mr. STAUBER. Thank you. Then the second comment I would like to make. Ranking Member Graves made it, and this is about the inability of elected officials in Washington to come to a compromise. And it is extremely disappointing. I hope it does not happen again.

And you talk about safety. I have to ask this one more time. Was there any flight in this country that took off, flew, that we knowingly felt was unsafe? Anybody?

Mr. CALIO. I will take it again. I would say no.

Mr. STAUBER. To Ms. Nelson, you talked about safety is first, the flight attendants and the assistants. You guys and gals do a magnificent job. You make the flights peaceful, and through some stressful situations. And I have only been a Member for a month and a half, but I have flown enough to really see the spectacular job that you and your folks do, so I appreciate that.

My last comment will be this. I will support 100 percent the aviation industry beyond 10 years.

Thank you, Mr. Chair.

Mr. LARSEN. Thank you, Mr. Stauber.

Next is Mrs. Napolitano, recognized for 5 minutes.

Mrs. NAPOLITANO. Thank you, Mr. Chair. And this question is aimed at all witnesses because there is a piece of legislation that is coming up, H.R. 1108, which I have cosponsored, and introduced by Chairman DeFazio and the subcommittee chair, Mr. Larsen, that will protect the aviation industry from future shutdowns.

How would this bill specifically provide the stability and predictability of your members, that they require, and ensure the safety of the system for all of us? Don't forget, I am one of those that travels twice a week, up and back to California. So it is very important. Yes, flight attendants are magnificent. I just wonder, when we get on the plane, are we going to get there safely? The attendants at either end focused on their job, are they all right? Or are they worried about having to pay bills because they have not been paid? So to each of you, I have the question.

Mr. RINALDI. Thank you for the question, Congresswoman. We believe it will be—this bill, if passed and enacted, will give us a seamless transition that if Congress failed to appropriate and failed to pass the CR, that we would just reach into the uncommitted balance of the Aviation Trust Fund and not worry about, 10 days before, preparing for a shutdown, and stop implementing equipment, shutting down our academies, stopping training air traffic controllers, stop implementing and training new technology to enhance the safety of the system.

So I believe by passing this, it will make it more safe, and it will eliminate the risk of what happens during a shutdown.

Mrs. NAPOLITANO. Thank you.

Mr. PERRONE. Yes, PASS supports this as well. We believe again—we have two sides, the technicians who maintain the air traffic control equipment, certify it, make sure that the air traffic controllers can use it properly, that the pilots are in communications with them; and also the regulatory side. We have the regulatory side that Flight Standards has to maintain with the industry to make sure they are following all the procedures, as we said, new equipment, existing equipment.

That is ultimately where we have to be, having those folks working day in and day out so there is no gap of, should we or shouldn't we fly? Should we or shouldn't we have a plane in the air, or that consideration? And everybody is focused on their job.

Like I said, knock on wood, we got the safest system in the world because our men and women are out there day in and day out. And we need to have that continue. Thank you.

Mr. CALIO. Thank you, Congresswoman. First, I would like to say one more word about safety. When you come into the industry, the first thing that everybody in the industry says, in answer to any question, is, "Safety always comes first." And it does. We all operate as a team, and a plane will not get in the air if we consider it to be unsafe, sometimes to great irritation to passengers.

In terms of this legislation, it would, as Mr. Rinaldi said, cut the uncertainty out because right now there is always a chance of a Government shutdown. The effects happen. So if we know that there is stable funding, and even if the Congress cannot come to an agreement on the appropriations, we will not be affected.

The money will come out of the trust fund because the money keeps going into the trust fund on a daily basis, gets repaid automatically. And it has been referenced here, and I don't know if the letter has been entered into the record, but it should. There are 40 signatories to this letter supporting H.R. 1108.

As I said earlier, this latest shutdown has totally galvanized the industry. We are together. We want this legislation. Thank you.

Ms. NELSON. Yes. This should be nonpartisan. Everyone agrees with this. And I have never seen the industry come together like we have around this. It feels—well, that part feels great, yes. So what we said was that we were less safe during this shutdown because we introduced risk that we didn't need to and that we couldn't even calculate was having an impact on our safety and security.

And so we should never do that again. Our union has opposed every single shutdown for this reason. And this was the longest one, it just so happens, so that many of us saw the effects much more because they grow every single day that the shutdown continues.

But we absolutely have to stop this, and we have got to get this bill passed immediately. And we have to have a more fulsome response as well. But we should take care of the FAA.

Mr. BUNCE. Congresswoman, I would just add that this shutdown really demonstrated how important aviation is to our entire society. We are an aviation nation. And so just like the markets react to certainty, our industry has to react to certainty. And this legislation will provide us the certainty that if something again happens like this that is politically driven, that we can go and keep this country running by keeping our industry running.

Mrs. NAPOLITANO. Thank you. It makes no sense, does it?

Thank you, Mr. Chair.

Mr. LARSEN. Thank you, Representative Napolitano.

Before recognizing Representative Fitzpatrick, I ask unanimous consent the following items be entered into the record of today's hearing: A letter signed by more than 35 aviation industry and labor organizations endorsing H.R. 1108, and a letter from the commercial drone sector endorsing H.R. 1108. Hearing no objection, so ordered.

[The two letters described follow:]



**Letter of February 12, 2019, from the Aeronautical Repair Station
Association et al., Submitted for the Record by Hon. Larsen**

FEBRUARY 12, 2019.

Hon. PETER A. DEFAZIO
Chairman, Committee on Transportation and Infrastructure

Hon. SAM GRAVES
*Ranking Member, Committee on Transportation and Infrastructure, Washington,
DC.*

Hon. RICK LARSEN
Chairman, Subcommittee on Aviation

Hon. GARRET GRAVES
Ranking Member, Subcommittee on Aviation, Washington, DC.

DEAR CHAIRMAN DEFAZIO, RANKING MEMBER GRAVES, CHAIRMAN LARSEN, AND
RANKING MEMBER GRAVES:

We write today to convey our strong support for the Aviation Funding Stability Act of 2019 (H.R. 1108) which would authorize the Federal Aviation Administration (FAA) to draw from the Airport and Airway Trust Fund (AATF) in the event of a Government shutdown.

During the recent shutdown, air traffic controllers and other aviation safety professionals were forced to work without pay and thousands of others were furloughed. Jobs and economic growth in the industry were threatened as manufacturers, airlines and other operators, and small businesses faced disruption. The effect on the Nation's air transportation system and the workers charged with keeping the system safe was dramatic. We find this situation to be unacceptable and we want to work with Congress and the administration to prevent this from ever happening again.

The legislation is designed to provide a limited, targeted way of ensuring stability for the aviation system and it does not change congressional direction or oversight in any way.

H.R. 1108 allows FAA to carry out its mission by using the AATF, which presently has an uncommitted balance of over \$6 billion. Additionally, users of the system continued to pay taxes and fees during the shutdown to fund the aviation system, but the dollars could not be accessed to support controllers, safety specialists, and other critical FAA personnel absent a legislative fix. Passengers, shippers, FAA employees, operators, businesses, pilots, airline employees and others rely on our aviation system and support its operation through payments to the Trust Fund.

We look forward to working with the committee, other Members of Congress, and the administration to pass H.R. 1108 and ensure that the FAA operates safely and efficiently for the flying public.

Sincerely,

AERONAUTICAL REPAIR STATION ASSOCIATION
 AEROSPACE MAINTENANCE COUNCIL
 AIR LINE PILOTS ASSOCIATION
 AIR MEDICAL OPERATORS ASSOCIATION
 AIR TRAFFIC CONTROL ASSOCIATION
 AIRCRAFT ELECTRONICS ASSOCIATION
 AIRCRAFT MECHANICS FRATERNAL ASSOCIATION
 AIRCRAFT OWNERS AND PILOTS ASSOCIATION
 AIRLINES FOR AMERICA
 AIRPORTS CONSULTANTS COUNCIL
 AIRPORTS COUNCIL INTERNATIONAL—NORTH AMERICA
 AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES
 ASSOCIATION OF FLIGHT ATTENDANTS—CWA
 ASSOCIATION FOR UNMANNED VEHICLE SYSTEMS INTERNATIONAL
 AVIATION ACCREDITATION BOARD INTERNATIONAL
 AVIATION TECHNICIAN EDUCATION COUNCIL
 CARGO AIRLINE ASSOCIATION
 COMMERCIAL DRONE ALLIANCE
 EXPERIMENTAL AIRCRAFT ASSOCIATION
 GENERAL AVIATION MANUFACTURERS ASSOCIATION
 HELICOPTER ASSOCIATION INTERNATIONAL
 INTERNATIONAL AIR TRANSPORT ASSOCIATION
 INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS
 INTERNATIONAL BROTHERHOOD OF TEAMSTERS—AIRLINE DIVISION
 INTERNATIONAL COUNCIL OF AIR SHOWS
 NATIONAL AIR CARRIER ASSOCIATION
 NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION
 NATIONAL AIR TRANSPORTATION ASSOCIATION
 NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS
 NATIONAL BUSINESS AVIATION ASSOCIATION
 PROFESSIONAL AVIATION BOARD OF CERTIFICATION
 PROFESSIONAL AVIATION MAINTENANCE ASSOCIATION
 PROFESSIONAL AVIATION SAFETY SPECIALISTS
 RECREATIONAL AVIATION FOUNDATION
 REGIONAL AIR CARGO CARRIERS ASSOCIATION
 REGIONAL AIRLINE ASSOCIATION
 TRANSPORTATION TRADES DEPARTMENT—AFL-CIO
 TRANSPORT WORKERS UNION
 TRAVELERS UNITED
 U.S. TRAVEL ASSOCIATION

**Letter of February 12, 2019, from the Commercial Drone Alliance et al.,
 Submitted for the Record by Hon. Larsen**

FEBRUARY 12, 2019.

Hon. PETER A. DEFazio
Chairman, Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC.

Hon. RICK LARSEN
Chairman, Subcommittee on Aviation, Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC.

DEAR CHAIRMAN DEFazio AND CHAIRMAN LARSEN:

As organizations representing the commercial drone and related aviation and vertical industries, we express our support for H.R. 1108, the Aviation Funding Stability Act of 2019, a bill designed to protect the Federal Aviation Administration (FAA) from the effects of future Federal Government shutdowns. We support this effort to alleviate the negative impact of shutdowns on the commercial drone industry and the wide range of vertical market sectors it supports in the United States, and appreciate your leadership on this important issue.

We are at a critical and exciting time for the commercial drone industry. Once properly enabled, the safe integration of drones into our National Airspace System (NAS) will save countless lives and have a significant economic impact in the United States. While great strides have been made in recent years to support growth in

the commercial drone industry, it is an industry that relies heavily upon its partnership and collaboration with the FAA to function properly.

Specifically, the recent closure of many FAA and Department of Transportation offices that work closely with the commercial drone industry during the December 22, 2018–January 25, 2019 partial Government shutdown caused significant industry disruptions. Moreover, the shutdown delayed policymaking that is essential to the continued economic growth in the United States.

Below are some specific examples of how the recent shutdown adversely impacted the commercial drone industry:

FAA Waivers and Other Approvals Delayed: The FAA’s Unmanned Aircraft Systems (UAS) Integration Office is responsible for processing thousands of waivers and other applications that are necessary to conduct expanded drone operations beyond the basic operations allowed under the current regulatory framework (14 C.F.R. Part 107), such as flights at night, over people or beyond visual line of sight of the pilot. Thousands of companies (as well as public sector stakeholders) rely on these types of FAA waivers to conduct advanced drone operations that are essential to their workers’ safety and business operations, as well as for emergency response activities. The FAA already has a massive backlog of waiver applications and the processing of almost all existing and new applications was suspended during the shutdown. The processing of petitions for exemption from various Federal Aviation Regulations was also suspended.

Policy and Rulemakings Delayed: All aviation rulemaking, including several critical drone-related regulatory actions, was suspended as a result of the shutdown. In August 2016, Part 107 of the Federal Aviation Regulations went into effect, which for the first time broadly authorized commercial drone use in the United States. However, the current rules still contain overly burdensome regulatory hurdles that make it impossible for companies in the United States to realize the full potential of drone technology and the resulting public benefits. Over the last several years, industry and the FAA have worked diligently to craft new rules that will allow for further integration of drones into the NAS and unlock the full potential of commercial drone technology. As a result of the recent shutdown, key rulemaking efforts necessary to enable expanded drone operations ground to a standstill.

Issuance of Airman Certificates Suspended: As a result of the recent shutdown, the FAA suspended issuing airman certifications. Thousands of would-be UAS pilots were unable to obtain the Remote Pilot Certificate that is necessary to conduct commercial drone operations.

Industry Partnerships Suspended: While the public benefits of commercial UAS are substantial, policymaking has lagged behind the technology in the United States. Recognizing this, and in an effort to help move policy forward, the Trump administration launched an innovative UAS Integration Pilot Program (IPP) to accelerate the safe integration of drones into the NAS and to foster the development of new drone technologies for use in a wide range of commercial industries. The IPP generated a lot of industry excitement, but while significant progress has been made under the IPP, all work under the program was suspended during the shutdown. Innovative work that was being conducted through other FAA-drone industry collaborative efforts, such as Partnership for Safety Programs (PSPs), was also suspended.

Key Industry Events Postponed: The FAA’s annual UAS Symposium, which serves as a focal point for FAA officials, Government agencies, and industry stakeholders to collaborate on key issues for the commercial drone industry, was postponed as a result of the shutdown. Other industry events that are critical to fostering Government-industry working relationships, including the Unmanned Aircraft Safety Team (UAST) meeting and the Commercial Drone Alliance Domestic Drone Safety and Security Series event, were also postponed as a result of the shutdown.

The recent Government shutdown caused significant harm to America’s commercial drone industry. We appreciate your efforts to protect the FAA from the effects of future shutdowns in order to enable the commercial drone industry to thrive.

Sincerely,

LISA ELLMAN AND GRETCHEN WEST
CO-EXECUTIVE DIRECTORS
Commercial Drone Alliance

PETER F. DUMONT
PRESIDENT & CEO
Air Traffic Control Association (ATCA)

BRIAN WYNNE
PRESIDENT & CEO
Association for Unmanned Vehicle Systems International (AUVSI)

TODD SCHLEKEWAY
EXECUTIVE DIRECTOR
National Association of Tower Erectors

Mr. LARSEN. Representative Fitzpatrick for 5 minutes.

Mr. FITZPATRICK. Thank you, Mr. Chairman.

First, thanks to each and every one of you for the role that you play, which oftentimes is taken for granted. Each and every one of you play a separate, distinct role that is equally important. You all did your job when this Government did not, and we want to thank you for that. And as I have said many times, having lived through a Government shutdown as an FBI agent in 2013, there are significant, long-lasting impacts that most people do not understand.

And to have a Government shutdown for 35 days, I can tell you, does irreparable harm to investigations inside the Bureau. And I know it does irreparable harm to each one of your agencies.

Two questions I would like to ask you, Ms. Nelson, based on your opening testimony. The first question is with regard to rest periods.

So there was an aviation tragedy about 10 years ago that resulted in rest requirements for pilots. Flight attendants were not included in those policy procedures and regulations. As part of the FAA reauthorization, those provisions were included.

How did the Government shutdown specifically impact that program and implementation of it?

Ms. NELSON. Thank you for that question.

In fact, this has been a 30-year effort to try to get fatigue addressed for flight attendants. We have had seven congressional fatigue studies that were done that determined that fatigue exists today, and the best way to fight that fatigue is to get more rest.

What was included in the FAA reauthorization bill was an increase of 2 hours' rest to make sure that flight attendants have a chance to get closer to 8 hours' rest in between flights. That has not been updated in the regulations as it was required by law, and there was no way to get at why it was not updated and how quickly it needs to be updated and implemented.

So there was no way to get at these issues, just like the issues of addressing sexual harassment, of improving our training around human trafficking, and the other issues that I raised.

Mr. FITZPATRICK. Thank you, Ms. Nelson.

The second issue raised was that of secondary barriers. I think your words were that flight attendants were being asked to be serving as physical barriers, and you lauded the provision that included secondary barriers for new aircraft.

If it makes sense for new aircraft, does it follow that it makes sense for current existing aircraft as well?

Ms. NELSON. We completely support secondary barriers in all of our aircraft. It is an absurd practice to have flight attendants use their own bodies as the barrier between the cabin and the cockpit. And secondary barriers are a necessary plank of security.

Mr. FITZPATRICK. Thank you.

I yield back, Mr. Chairman.

Mr. LARSEN. Thank you, Representative Fitzpatrick.

I now recognize the Representative from the Sunflower State, Representative Davids.

Ms. DAVIDS. Thank you, Chairman.

Well, first I want to say thank you to the witnesses today. I really appreciate the opportunity to serve on the Aviation Subcommittee. Kansas is sometimes referred to as the "Flyover State," but we have an awful lot going on there.

One of the things that is going on there is that we have regional air traffic control center in Olathe, Kansas, which is in the district that I represent, and I had the opportunity to go by and actually visit the facility and walk onto the floor where the folks who are navigating the planes were at, and the stress that I felt just walking through there was pretty intense because you know that there are thousands of lives in the hands of the folks that are doing that.

My mom was in the Army, and now she works for the post office. So many people in my family have been Federal employees and are career civil servants, and I want to thank Ms. Nelson and Mr. Bunce for, one, recognizing our Federal civil service workers as both unsung heroes and also calling out the sometimes demonization and that sort of thing because our Federal civil service really keeps this country going in a lot of ways.

So one of the things I want to ask about is I have heard a lot of questioning about safety, and I would like to hear actually from anyone who wants to respond to this. The kind of mental health of the folks who are under the stress of keeping so many of us safe while we are in the air, but also the impact that the shutdown had on their—sometimes it is morale, but it extends much further than that.

I do not know if you have been hearing from—really I feel like every single one of you, whether it is safety, the flight attendants, the air traffic controllers, but could you speak to that a bit?

Mr. RINALDI. Sure. I would love to. Thank you for the question.

During the shutdown and to an extent currently right now because they are not made whole financially, it was demoralizing. They did their job. They did nothing wrong. They came to work. They were used as political pawns for an issue that, quite frankly, was not germane to aviation at all, and this has happened time and time again.

We have seen, you know, over a dozen opportunities for possible shutdowns in the last 18 months. We have experienced three shutdowns, and it is demoralizing to start working on programs that are going to get shut down and spend time away from your family to be subject matter experts for the next generation of air traffic control equipment, and then not being able to implement this.

Now we are going to start back up, but it is going to take 6, 8 months to get back to normal. I think between the fatigue, the risk in the system, and the devalue that they felt coming to work day

in and day out will have lasting, lasting effects throughout their career.

Mr. PERRONE. Thank you.

You know, visiting the facility, you saw the air traffic controllers and where they work behind the scenes, below, back in the equipment room. Our folks have to maintain that equipment. They have to keep that up and running, and the pressure, the stress to make sure that it is running properly.

Meanwhile, they have to think about their personal lives, their families, and all the other work, the distractions.

And they are professionals. It takes anywhere from 3 to 5 years for technicians at certain locations, sometimes longer, and they consider themselves, as the inspectors do, as our administrative support, we are all in this together in keeping the system safe.

And to have a slap in the face, again, to say, "You are not important," you know, some of them do not go to work. You get paid maybe eventually. Pulling savings out, pulling college out, there were just some examples I have that one of the technicians said, "I can't get my insulin."

"I am not going to go to the doctor and get the surgery I need because I don't know how to pay for it."

Meanwhile, he is certifying air traffic control equipment. His head is not in the game 100 percent, but yet they showed up every day to do the job they needed to do. Our inspectors, unfortunately, did not.

So I know the question has been asked: is the system safe? Yes, it is safe, but now the inspectors have to go back and that pile of information that the industry sends over to the FAA for review, is there something that was missed? Did a plane take off that maybe should or shouldn't have? Did a pilot or someone have an issue?

We don't know until they go through and comb through that. I believe, as Mr. Calio said and others, nobody is going to take off on an unsafe condition, but we don't know what we don't know.

And these folks say, "We want to do the job. Pay us. Let us do our job," and that is going to, as Paul said, reverberate in new people. We just had a meeting yesterday in Oklahoma City, with trainees, and we were out there talking to those folks. They are questioning whether they want to stay in the FAA now because of that. They are questioning will there be another shutdown, will there be another impact, or should they go and find another job.

So, yes, it really is a demoralizing activity.

Mr. LARSEN. Thank you. Thank you, Representative Davids.

I now want to recognize the pride of Dryden Township, Mr. Mitchell, Representative Mitchell of Michigan.

Mr. MITCHELL. You should come visit Dryden sometime, check out the horses.

Mr. LARSEN. Thanks for the invite.

Mr. MITCHELL. Any time you would like.

I would like to say, you know, I grew up in a family. Dad built trucks on the line. Mom worked for the Salvation Army. We saw a lot of layoffs in the 1960s and 1970s in the auto industries.

I was alive, by the way, when President Carter was here. I don't remember. I claim I don't remember what happened. What we saw in the shutdowns is that politics overwhelmed policy and people.

This institution has already amazed me in my little over 2 years with its inability to have a level of maturity that gets things done, and it is dismaying some days.

Mr. Larsen, I would support your bill if we, in fact, had clear penalties on Members of Congress and the staff for not getting their job done. Don't pay them, none of them. It is irresponsible. They shouldn't be.

I put my letter in to have my salary held the night before the shutdown when it was clear where it was going because people profiled about their issues rather than actually deal with the problem.

But let me ask a couple of questions because I think adding drama to the situation—first, let me thank everyone here that did their jobs. Some of your folks came and visited me, and we talked at some length. Air traffic controllers came in to chat with me as well as TSA.

Mr. Rinaldi, are you aware of any security, safety concerns that arose in the 35 days?

Mr. RINALDI. I am not. What we are aware of is that the system is built on layers and redundancy of safety. It is the ultimate safety net, and you know, if you shut down for 3 or 4 days, you are not wearing that net out.

But as you go 2 weeks, 3 weeks, 4 weeks, and our processes are not in place to mitigate risk and reduce the hazards that are identified, then you are increasing the risk.

Mr. MITCHELL. Oh, I heartily agree. People not paid for a month is unconscionable.

Mr. RINALDI. Well, I was not even talking about not being paid, but not having people at work that actually do the safety functions.

Mr. MITCHELL. Sure. I agree.

I will note that, for Mr. Larsen and others on the committee, that, in fact, when we authorized FAA last term, we could have proceeded with privatizing air traffic control. It wouldn't have been in place by now, I readily admit, but in my opinion, we need to take some of these functions. Air traffic control; we need to take certification of aircraft as much as we can. It is self-funded and actually put it off in a private, nonprofit, not unlike the Tennessee Valley Authority.

Now, there is a challenge I would like to talk to you about because we can get it outside of this alleged Government process that fails to function on many days around here.

Would you like to talk about that, sir? We should do that sometime.

A quick question for you, Ms. Nelson. You reference in your testimony some specific instances where there were concerns regarding failures of security and concerns about security in the air. I am concerned about that.

But I think rather than generic or general descriptions, I think we need more specifics about what transpired that led to these concerns because, as I said to Mr. Rinaldi, on top of all the other stupidity around here, we didn't need more drama.

So I am curious what the examples are.

Ms. NELSON. People were stretched to the nth degree. What we saw at the security lines actually was really the best of America during this shutdown.

Nobody likes to go through TSA security lines, and usually they are pretty grumpy about it, but what we saw was people coming with very good spirits, thanking the TSOs for being there, and being very grateful for them to continue to do their work even though they were not getting paid.

People were also not just thanking. They were trying to bring money, food, other gifts to try to sustain these people, and what we saw during this time, and obviously, they are not supposed to accept any of that. We don't need people in a security sensitive position accepting bribes.

So this is one example of a security concern that we had, was that as the shutdown wore on, management was looking the other way when people were bringing these issues sometimes because of the human need, because there was such a strain on people, because they were having to go to food lines, because people were so stressed out.

We also don't know what causes anyone to be in personal distress, but we know that there were people who were thrust into a hopelessness that had them saying things like, "I am not getting paid. It doesn't matter," or my member tried to revive someone who took his life and was pushed really to the limit.

Introducing that into a security sensitive place and not having the backing of the fully functioning FBI and the other agencies behind the scenes doing the risk analysis so that those TSOs can get those briefings every day were all part of the security concerns that we had and what we were seeing and where the system was breaking down.

Mr. MITCHELL. I yield back. Thanks, Mr. Chair.

Mr. LARSEN. Thank you, Representative Mitchell.

Representative Lynch of Massachusetts.

Mr. LYNCH. Thank you, Mr. Chairman.

I want to thank all of the witnesses for your willingness to come to the committee and help us with your work.

First of all, I want to just say how strongly I support H.R. 1108, Mr. DeFazio's bill. I just read it. It is three pages, a model of efficiency and a commonsense piece of legislation, and I think we should get it done.

I do want to point out, however, a number of my colleagues on the other side of the aisle have commented about the sadness of the shutdown and how we shouldn't let that happen again. I want to remind my colleagues who started this shutdown. The President took full credit for this. We had general agreement on a lot of bills across Congress.

As a matter of fact, this week we are going to have seven appropriations bills that are basically agreed upon, bipartisan, House and Senate, that will proceed. It was the President's decision to take hostages, flight attendants, air traffic controllers, TSA workers.

That's what we objected to, and to suggest that a Member of Congress should give up their pay because the President decided to take hostages? Give me a break.

Before coming to Congress I was an ironworker for 20 years. I represented people for a living. I negotiated contracts on behalf of my workers, the men and women of the ironworkers union and the carpenters union, stagehands, wardrobe workers. I negotiated contracts with them, for them, on their behalf.

Coming to Congress I still do that for Federal employees and other workers. Even when I took my members out on strike, when I asked my members, the men and women of my unions, to go on strike, I got paid because they wanted me in there fighting for them, that I would have no distractions and no backsliding, no backstepping.

So I advise my colleagues on the Democratic side, take your pay. Keep fighting. That's the attitude that the Democrats should have.

It was the President's decision, reckless, reckless decision, irresponsible decision to shut this Government down. Don't forget that. And any Democrat who is willing to negotiate with somebody who takes workers hostage should be disgraced, and I am glad my colleagues did not do that.

The starting pay for a TSO is about \$28,000 a year. Are you kidding me? There are fast food places that pay more than that. So we shouldn't be surprised when TSOs making \$28,000 a year with a 35-day shutdown are not coming back.

And if the President shuts them down again and we have basic agreement, again, between House and Senate on the bill to go forward and end the shutdown, if the President says no and shuts the Government down again, again, we will face that same dilemma. And these TSOs after that 35 days, and some of them have not been paid yet, if they get put on furlough or laid off again, you can expect that they will just walk. The job is tough enough as it is.

So I agree. It is shameful that anyone would shut this Government down. I mean, it just hurts the image of this Government in the eyes of the American people, who we all do work for.

But taking hostages is not acceptable either.

I yield back.

Mr. LARSEN. Thank you.

The Chair now recognizes the gentleman from Zanesville, home of the Fighting Blue Devils and the Y Bridge, Mr. Balderson.

Mr. BALDERSON. The Y Bridge. Thank you for recognizing that, Chairman.

Chairman Larsen and Ranking Member Graves, thank you both for holding this hearing today.

I know from my constituents that the partial shutdown did cause significant hardship to pilots, air traffic controllers and others in the aviation sector. I visited and communicated with them, making phone calls. That is one of the reasons, and I would ask my fellow colleague from Massachusetts to join on and cosponsor a bill that Senator Portman and I did, the End Government Shutdowns Act, to prevent this instability and future risk.

And I appreciate all of you giving your input today and letting us know what the impacts are from your area of concern on the effects.

My first question that I would like to ask is for Mr. Calio. Good morning, sir. Thank you for participating today.

I want you to discuss the financial impact of the shutdown on the airline industry. For example, the shutdown delayed Southwest Airlines' plan to operate services to Hawaii. Can you share with the committee specific examples of how the shutdown financially impacted members of your organization?

Mr. CALIO. As a proud Ohioan, I am happy to try to answer your question.

Mr. BALDERSON. O-H.

Mr. CALIO. I-O.

[Laughter.]

Mr. LARSEN. Order, order.

Mr. CALIO. Just give us a moment.

Mr. Balderson, as I mentioned earlier, we generally defer to our members to do that. That figure is well known. Southwest has roughly estimated about \$15 million.

There was another estimate for another airline of \$25 million. I think the greater point here is in looking back, to look forward. Looking back there are all sorts of cumulative impacts of the shutdowns that have been laid out here in terms of delays. The delays built up over time, create further delays down the line so products don't come online. New planes don't come into service. New routes don't get written. New procedures don't get written, all of which has a huge financial impact on an industry that is the economic engine of this country.

So while I cannot quantify for you with any amount of certainty, I can say there are financial impacts that were immediate. There are financial impacts that will accumulate to the midterm and to the long term, and we can't let that happen again, which is why we support legislation that adds certainty to FAA funding so Mr. Rinaldi and I and our friends can quit talking about the need for stable funding all the time.

We have been at it. It is kind of like Groundhog Day.

Mr. BALDERSON. Thank you for answering the question, and it is good to see a fellow Ohioan.

Back to Mr. Rinaldi since you brought that up. Good morning, Mr. Rinaldi.

Mr. RINALDI. Good morning.

Mr. BALDERSON. As I said earlier, I did have the pleasure of touring the tower at Columbus airport, now named the John Glenn International Airport and have developed a relationship with Mike Weekley there, and it is always good to work with Mike.

And someone talked about the facility in Oklahoma and the training facility, and that is something that I am going to discuss in the near future pertaining to workforce development and the backlog that is there and, you know, getting folks encouraged to go into this industry.

But have you had any confrontations about backup plans in case there is a future shutdown? But hopefully we pass my bill and that does not happen.

Mr. RINALDI. Well, as far as backup plans for future shutdowns, you know, working with the agency as we approach a shutdown, the interesting thing is about 10 days out we start exchanging lists of who would be what we would say exempt/nonexempt. These say

essential/nonessential. Now, that is not politically correct, so it is exempt/nonexempt.

We think the FAA, all employees of the FAA, are essential and need to come to work to continue to run the safe, most efficient system in the world, and we would like to see stable, predictable funding and make sure that we never have to see these shutdowns again.

Because even if we don't shut down tomorrow night I think that is, we have already been planning for a shutdown for 10 days. That is detrimental to aviation because we are not modernizing the system. We are not moving forward. We are taking two steps backwards every time we come up to a date that looks like a shutdown.

Mr. BALDERSON. Thank you.

One followup for you and back to that workforce development piece and attracting outside of the shutdown concern. Can you discuss any ongoing plans to recruit folks to get into this line of work?

Mr. RINALDI. We have a number of people that want to become air traffic controllers. The agencies, we have different tracks of hiring, whether it is from the military or prior experience, certainly off the street, or in our college programs.

So there is a good pool of people who want this job. The problem is getting them through, you know, the testing, then security, the medical, and getting them through the Oklahoma academy, which has limited seats.

And we have lost 30, basically 2 months of limited seats.

Mr. BALDERSON. OK. I look forward to working with you on that. I yield back. Thank you, Mr. Chairman.

Mr. RINALDI. Thank you, sir.

Mr. LARSEN. Thank you.

And the Representative from the State whose State beverage is milk, Angie Craig, Representative Craig from Minnesota.

Mrs. CRAIG. Thank you so much, Mr. Chairman.

So I was sworn into the United States Congress 12 days into this shutdown, and since 1996, we have had 22 continuing resolutions and 10 Government shutdowns. So as I come into this Congress, I take a fresh look if what we have been doing is working.

And I want to say to you that that is why I have supported a freshman bill called The Shutdown to End All Shutdowns. Not only does it send us into a continuing resolution, but it also makes sure that our elected leaders are here every single day for daily quorum calls.

It also takes away pay because I believe if your hard-working Federal Government employees are not being paid, neither should we, and we should come to work every day and fight like hell for you, even though we are not being paid.

So I have come in, I believe, with a number of the freshmen with fresh eyes looking at the way this Congress is working.

I will support the chairmen's, both Chairman Larsen and Chairman DeFazio's legislation, H.R. 1108, because I believe in the interim of figuring out how we stop all shutdowns, we certainly should stop our national airspace having the risk that we currently have.

Mr. Rinaldi, thank you so much for being here this morning and representing air traffic controllers. As you may know, I have a re-

gional air traffic control center in my congressional district in Farmington, Minnesota, otherwise known as the Minneapolis Air Route Traffic Control Center. I will try not to be offended by it being called Minneapolis and it is in Farmington.

But it is the 13th busiest center in the United States, and I want to share a few of the stories of the air traffic controllers in my center. I want to talk about Joe, Jeremy and Kelly.

Joe was a new father of a baby born 10 weeks prematurely. He had his leave canceled, and he had to decide whether he would come to work every day or go to the NICU and see his newborn.

Jeremy was a father of three who was on the verge of having to take out significant credit card debt just to pay his bills.

And Kelly is a trainee with student loan debt, and she had to wonder how she was going to continue to meet those requirements.

So each of them on behalf of their communities came to work every single day not just on behalf of their communities, but on behalf of communities that they will never ever know. They came to work every day, and they did their job.

So I want to ask you, Mr. Rinaldi, and every single one of you. We are staring down another Government shutdown, and although I am optimistic because that tends to be my nature, I want you to tell us what message you would have for Congress and for the administration on Saturday morning if you wake up and this Government is shut down again.

In one or two sentences, what is your message to us?

Mr. RINALDI. It has been the message during the shutdown. It's: open the Government. There is no reason for Federal employees to be held hostage for a political dispute that has nothing to do with them. Congress, Senate, White House need to do their job. They are elected to do their job. Do their job and keep the Government open.

I thank you for your legislation. We will support any legislation that meets our four core principles, that, you know, supports our front-line workforce; that certainly gives a stable, predictable funding; and gets us out of this shutdown mode.

I thank you.

Mrs. CRAIG. Thank you.

Mr. PERRONE. I thank you, Congresswoman.

Yes, the same thing: keep the Government open. Do your job. Pay the folks because it is a critical, critical disservice to them that they do not come to work or if they show up, some have to show up Saturday morning, midnight Friday night because they work rotating shifts, and have to think again, "Here we go. How long are we going to go?" But yet they are going to do everything they can.

So do you job, Congress. Do your job, administration. Sign whatever it takes to keep the Government and the FAA open, and really for all Federal employees.

Thank you.

Mr. CALIO. Thank you.

Airlines for America would say that, number one, operating crisis to crisis is a terrible way to do business whether it be in Congress or anywhere else.

Secondly, compromise is not a dirty word.

And, thirdly, A4A also will support any legislation that prevents a future Government shutdown.

I would say this because I am one of the old-timers here. Don't try to bite off too much. Seize the moment right now. Get H.R. 1108 done and move on from there.

Ms. NELSON. We take our role seriously of keeping the American public out of danger, and if Congress chooses chaos on Saturday morning, working people have power, and we will come together and use it and we will stop the chaos.

Mrs. CRAIG. Thank you.

Mr. BUNCE. I would just say: do your jobs and do not leave town until it is done.

Mrs. CRAIG. Thank you. Thank you so much.

I yield back my time.

Mr. LARSEN. Thank you, Representative Craig.

Representative Spano from Florida.

Mr. SPANO. Thank you, Mr. Chair. I appreciate the opportunity to serve with you.

And thank you for being here. I am really grateful for your testimony and your expertise and the work that you all do to keep us safe. It means a great deal to me as one who has never flown too much until very recently. So thank you very much.

I have a couple of questions for you. I, too, would reiterate and just echo what the other members of the committee said in terms of there really being absolutely no excuse for the Government to shut down.

We have a job to do, and we need to do it, and I think the Nation has a right to expect us to do it. And so we will look forward to working with those out there who do have bills that would continue the Government and would prevent this type of scenario from happening in the future. So I look forward to working with the Members to that effect.

I do have a few questions. The first question I would direct, if I may, to Ms. Nelson. You had mentioned and you just reiterated, I think, or alluded to it a moment ago just in your response to the previous question, but you said in your testimony, "If Congress will not put an end to the crisis, we will take action to save lives and protect U.S. aviation."

My assumption by that is that that means you would go on strike. Is that an accurate assumption?

Ms. NELSON. No. That is not an accurate assumption. It may be every single day in aviation today if we see an unsafe condition, we are charged to raise our hand and say it is unsafe.

Now, we run the safest transportation system in the world, really proud of that, and all of us participate in that. But when we see something that is unsafe, we will raise our hands and we will not work that flight until that is corrected.

So that is a possibility. That is not what I am saying is definitely going to happen. What I am saying is that we are calling all American people to come to the airports and demand that Washington do its job and keep the Government open.

Mr. SPANO. Thank you so much.

My next question is for Mr. Perrone. How long, in your opinion, do you think it will take for FAA operations until they are back to normal?

Mr. PERRONE. Thank you, Congressman.

That is tough to say. Like I said, the shutdown, even the 2013 shutdown, it took a long time to catch up, and now on top of that we have 35 days of shutdown. Our inspectors are trying to do what they need to do.

I mean, there was an aircraft crash that they just put tape around, and nobody could inspect it, the NTSB, the FAA inspectors, and it just sat there.

There were violations that occurred that timed out. Some timed out; some did not get put into the system in a timely manner. But, again, every day there is new work that they need to do. So it is hard to say, but it is going to take a long time.

As Mr. Bunce said, there is aircraft certification that didn't happen. There are pilot certificates that didn't happen, and that continues to add to the frustration, and we have had a few of our inspectors already say, "We are leaving. We are going back to industry." There is going to be a shortfall of staffing.

And then with the academy being shut down, you cannot train new inspectors. So it is a compounding problem.

Mr. SPANO. Can you give me an understanding or an idea of what the functions were that your members continued to perform during the shutdown and what they did not perform?

Mr. PERRONE. So from the aviation inspector side, none of that work was done or completed. So there is a safety program volunteered by the industry that says, "Hey, we have an issue or concern." It goes over to the FAA inspector to analyze. That just sat in their inbox until the inspectors came back.

There were pilots that needed to either be recertified or given licenses that was not completed. Now, the registry was open this time around versus 2013 because the industry said last time that the registry not having aircraft certified or registered to sell, they stayed open.

Procedures were limited. So new procedures that normally take a certain amount of time were delayed.

Our technicians worked. They worked without pay the whole time. What they couldn't do is some of the modifications, as Paul has said, some of the new equipment, or I should say modifications to existing equipment couldn't be completed. They were only allowed to do safety related equipment, certify the existing equipment for air traffic control. They couldn't do other type of work.

And we had a lot of administrative folks that were nonessential or nonexcepted, that that paperwork sat around.

Mr. SPANO. Thank you. Thank you.

My next question is for Mr. Calio, and that is you testified about the shutdown's impact on NextGen programs. So my question to you is: are your member airlines still in line to meet the NextGen ADS-B equipage deadline for January 2020?

Mr. CALIO. Well, we are working on that with the FAA, but all of these shutdowns create a slowdown because nobody could work on it for 35 days, and if there is another shutdown, that will further delay it. And we have had those kinds of delays a number of

times over the last 7 years. So every shutdown, like I keep saying, has a cumulative impact.

So we are working towards it. Our expectation is to try to meet it. We'll see.

Mr. SPANO. Thank you.

I yield back.

Mr. LARSEN. Thank you.

I recognize Mr. Carson, Representative Carson, from Indiana for 5 minutes.

Mr. CARSON. Thank you, Mr. Chairman.

Thank you, Mr. Bunce. This question is for Mr. Bunce and anyone else who would like to answer.

You know, during the shutdown, our office received an urgent request for help with the Indiana Organ Donation Network to get their flights off the ground. They needed to get new aircraft to help surgeons who collect organ donations and then fly them to perform surgeries to even deliver the organs.

This lifesaving network was interrupted during the shutdown when certification personnel were essentially furloughed. I am sure you have seen more than we have the examples of this kind of thing in general aviation.

I am hoping you or any of the panelists can give us a better picture of how the shutdown impacts with this particular sector.

Mr. BUNCE. Well, sir, in this particular case, they were taking delivery of two business jets, and the operating company that worked these aircraft have quite a few flights that they do over a Midwest region that includes the State of Indiana.

And it is just an example of what happens all throughout the system because pilots have retraining requirements that they have to do to be able to fly a business jet. So when you go back to training in a training center, the training center has to have the most current equipment that you have on that aircraft in the simulator. So those manuals have to be approved each and every time that the manufacturer or, in this case, someone who is moving organs and does a modification to the aircraft.

That ripples into the system, and so the FAA has to approve each one of those manual changes. So you impact the pilot training. You impact the delivery of the aircraft when you have got to make modifications to it, and so that happened throughout the country.

Take, for instance, firefighting. Up in Mr. DeFazio's State, they had to do modifications to get these aircraft ready to be able to bid on contracts for the upcoming fire season. If they didn't have the modifications in place, they couldn't submit the proper bid because they can't say they have equipment on the aircraft certified that they don't have.

So all of a sudden, they miss a year of bidding on contracts for important elements like firefighting that we have to do. So it happened across the country in many different sectors that do these public service types of flying.

Mr. CARSON. Thank you. Thank you, Chairman.

And I yield back.

Mr. LARSEN. Thank you, Representative Carson.

I go with Representative Katko of New York.

Mr. KATKO. Thank you, Mr. Chairman.

And thank you all for begin here today.

Mr. Calio, I think you summed it up perfectly when you said that compromise is not a dirty word, and at the heart of what causes shutdowns in my mind is an inability to compromise, political posturing and gamesmanship that catches a lot of people in the cross-hairs, and the lack of consideration for those people is stunning to me.

Mr. Perrone, what you touched on and what others touched on are some of the intangibles that happen in the security arena. Yes, thank God, you didn't have a security event during this time, but when you have someone like a TSA employee, and I have oversight over TSA for the last 4 years and I continue to, and I am glad to be on this committee as well because it is an aviation sector, which I am very, very interested in from a safety and security standpoint; you are paying someone peanuts at TSA. They don't have all the protections other agency employees have, and then you are asking them to work for free, and then you are asking them to try and find the proverbial needle in the haystack, knowing that something as small as this could take down an airline, my cell phone.

We are flirting with fire. We are absolutely, positively flirting with fire. And I look at the aircraft inspection security. It is the same thing. You could apply that to anything, not just TSA.

So the more that we use shutdowns as a political tool, the more we are really flirting with disaster, and I have never voted for a shutdown. I have never voted to keep the Government closed, and I never will, and the consequence be damned to me politically because it is more important that we do our jobs, and we abdicate our responsibility when we don't do that.

So with that in mind, I think it is sometimes helpful to identify with some particularity the impacts, and we have talked generally about them. So I want to ask. I will maybe ask Mr. Bunce first. Maybe, Nick, you can think about something from the airline side.

But from the manufacturer's side, I used some examples during the shutdown of unintended consequences from a financial standpoint because people are thinking, oh, you just shut down the Government. You are saving money. We do not need these employees.

Well, it is much worse than that. Airline inspectors, you can't get your newly manufactured planes out of your plant because they can't be certified because the FAA inspectors weren't around; is that right?

Mr. BUNCE. That is correct, sir.

Mr. KATKO. All right. So can you give me an idea from a dollar amount what that costs from the manufacturing side to have those planes stacked up and not being delivered for 35 days?

Mr. BUNCE. So for each company, as Mr. Calio said for the airlines, each company has an individual case, but let me give you one—

Mr. KATKO. I'm talking about the manufacturer's standpoint.

Mr. BUNCE. Yes. So each company is different. So for a big company that I mentioned a burn rate of \$10 million in a major development program, that is one economic impact.

For another company, a small company that has maybe got just one product line, and you are upgrading to, let's say, a new processor that does more work, if you go and you look at the supply

chain, all of a sudden you have got to make a decision, a bet that the FAA is going to certify your product by a certain date, and you have got to turn off delivery of the old processor and start ordering the new ones because you have to have lead time in the supply chain.

All of a sudden now you can't get that new product out the door. You run out of the old processor, and now you are stuck. And if your product line is very small, this can put you in a situation where now you have to try to go out to the markets and find bridge funding, and who wants to invest in an industry that is so reliant on the Government that they have these stops and starts?

So it does have a significant ripple effect.

Mr. KATKO. Mr. Calio, I know you mentioned some dollar figures. Do you have any hard figures for the industry as a whole as to how much they were impacted by this?

I mean, I looked at some of the new routes that you said in your testimony were being affected that weren't going to be able to go into operation. You aren't taking delivery of new airplanes, which are more efficient from a fuel standpoint, and you were waiting for those new routes, maybe you had to cancel routes.

All those things come into consideration that people don't take account of. So is there anything else you want to add to that?

Mr. CALIO. Not to that because I have said we can't quantify the figure, but there is a figure there.

I would like to mention TSA because of your work on TSA, and thank you, along with Chairman DeFazio for your work in trying to stop the diversion of TSA fees for nonsecurity purposes.

Mr. KATKO. Yes.

Mr. CALIO. That was an area of the system that was stressed, and passengers are paying every day into that system. The same with CBP where—

Mr. KATKO. That is why I introduced a bill to pay them out of that fund.

Mr. CALIO. Yes. So why stop it?

So there are things to do here, and I think doing it on a bipartisan basis is exactly the approach that has to happen, and again, I would encourage all the committee, without being presumptuous, I hope, strike while the iron is hot. People are thinking about this now.

Mr. KATKO. Mr. Perrone, real quickly, were the aviation safety inspectors at the foreign repair stations impacted by this at all?

Mr. PERRONE. Yes, there was none done during that 35-day period.

Mr. KATKO. We are over my time.

Mr. PERRONE. So we had security issues.

Mr. KATKO. We are, are we not? We are flirting with fire.

Mr. PERRONE. Absolutely.

Mr. KATKO. Thank you, Mr. Chairman.

Thank you all.

Mr. LARSEN. Thank you.

I recognize Representative García from Illinois for 5 minutes.

Mr. GARCÍA. Thank you, subcommittee Chair Larsen and Ranking Member Graves.

So once again, we are possibly on the cusp of yet another potential Government shutdown. It is for this reason that I am very happy to join Chairman DeFazio and subcommittee Chairman Larsen in cosponsoring the Aviation Funding Stability Act of 2019.

This bill would ensure that all FAA programs, projects, and activities would continue uninterrupted during a future Government shutdown. While we talk about the effects of shutdowns, I want to make sure that we keep at the fore the human impact shutdowns have on real, hard-working people.

This morning I met a TSA agent working at O'Hare Airport, one of the busiest in the country. Christine worked hard to buy her manufactured, or mobile, home in Chicago, where she and her 23-year-old son live. During the last shutdown, Christine had to pull out the \$200 she had in savings just to buy food and gas. At one point, Christine called out because she didn't have enough money to make her 22-mile commute to work.

On January 10th, Christine was served a 5-day notice of eviction. In a recent interview, she recounted the internal dialogue she had during the shutdown.

"How long can we last? I have got a \$15 gift card, and it is 2 degrees out this morning. What the heck am I going to do? I am worried about my car, and I am worried about losing my home. Even if the Government is reopened, this has hurt us tremendously. We missed paychecks, and there will be late fees. Who would work at a job for 1 month and not get a paycheck?"

Mr. Chairman, I also listened to stories of air traffic controllers who are on the brink of resigning because they were being forced to make the decision on whether to come to work or find another job to pay the bills.

In fact, amidst the shutdown, I joined my Illinois delegation colleagues at O'Hare to hear directly from workers about the problems they faced. There were over 600 air traffic controllers and other aviation professionals who live and work throughout northern Illinois, including my district.

One controller whose wife had been diagnosed with a heart condition while their first child was in the middle of medical tests fell into quite deep hardship. You see, dealing with medical conditions is more difficult at the beginning of the year because working families have not yet met their insurance deductibles and have a larger out-of-pocket responsibility.

In St. Louis, there were reports of a young air traffic controller selling his plasma just to make his monthly payments. These are simply devastating stories of real individuals suffering from the political gamesmanship that threatens shutdown after shutdown. This brinksmanship has the effect of reducing Federal employees, contractors and their families to mere political bargaining chips during the shutdown.

Chicago Center was in the middle of implementing new equipment which will enhance communication abilities with pilots. This equipment is commonly known as DataComm. Once the shutdown started, training and implementation stopped. NATCA estimates that \$1.5 million that was spent on training was lost and will need to be reaccomplished next fall or later.

Not only did the new equipment training come to a halt, but on-the-job training was ground to a standstill as well.

I thank all of the witnesses who have come here today to show us what the full impact of a shutdown on aviation is. I do have a question for Mr. Rinaldi.

With, as I understand, about 20 percent of current air traffic controllers eligible to retire and the current 30-year low in staffing, there is a critical need for new controllers to expand airport capacity at O'Hare and Midway and other large airports. What will the impact of the shutdown be on encouraging air traffic controllers to retire and on the ability to hire new controllers?

Mr. RINALDI. Thank you, sir. Thank you for your passion and your support for the Federal workers. We really appreciate that.

As far as, you know, we are still in catchup mode from the shutdown of 2013, the sequester that kicked in. The FAA closed the academy, and then we had the October shutdown for 16 days. The academy was closed for a full year, and we are still catching up there.

If we shut down again, the catchup will be well into the 2022–2025 mode.

Mr. GARCÍA. Thank you, Mr. Chairman.

Mr. LARSEN. Thank you, Representative García.

I recognize Representative Woodall from Georgia for 5 minutes.

Mr. WOODALL. Thank you, Mr. Chairman.

And to Mr. Rinaldi, any time bad things happen and folks are focused, you either had a chance to have your stock rise or your stock fall. I don't think folks realize your members were working 60-hour weeks before shutdowns and 60-hour weeks during shutdowns and 60-hour weeks after shutdowns. That is just the kind of work that your members do day in and day out.

And at least from the Metropolitan Atlanta area, where we count on your folks to show up and do their very best absolutely every single day, I know things were getting tough, well, from the beginning to the end, but your folks showed up and did what America was asking them to do, and folks are grateful. So I just wanted you to know that that certainly did not go unnoticed.

Mr. RINALDI. Thank you.

Mr. WOODALL. We spend a lot of time these days talking about the demise of the aviation industry not because of shutdowns, but because we will stop flying planes, because we will have lots of new alternative modes of transportation to replace our aviation industry.

Not to get ahead of ourselves, but I know the aviation industry has been working hard to take care of its carbon footprints, to reduce emissions, to do what the private sector always does, which is try to be the very best corporate citizen it has.

I was hoping Mr. Bunce and Mr. Calio could take just a moment and talk to me about what has been going on in the industry to try to be the very best steward of the environment that you can be, to continue making advancements whether the Government mandates them or not.

Mr. BUNCE. Yes, sir. I think I join my colleagues here. I am extremely proud of what we have been able to do as an industry. This industry came together. We went out to ICAO, which is the United

Nations of aviation up in Montreal, came together and arrived at a carbon standard or a CO2 standard that now is applied worldwide.

We have programs going on to be able to use what is called sustainable alternative jet fuel, and obviously Mr. Calio's membership uses the bulk of that fuel, but we in business aviation, everybody that is using turbine fuel, jet fuel, will be able to meet our goals if we are able to go ahead and start producing or getting the demand for this and having refiners be able to give us that type of fuel.

On the piston side, for avgas, this committee has been tremendous supporters for us of a program that we are doing to be able to make that fuel more clean.

So in so many areas, this industry is working together, and because the whole planet is relying on aviation and we have this new, exciting dimension coming out of an ability to use electric and hybrid propulsion, which is even going to make us further green.

So it is a very exciting time in aviation, and we are doing our part for environmental sustainability.

Thank you.

Mr. WOODALL. Thank you.

Mr. CALIO. Thank you, Mr. Woodall.

As Mr. Bunce laid out, there is a lot that has been going on, and the industry has come together to do it. Please forgive my voice. But I point out that between 1978 and 2017, aviation reduced its emissions by 125 percent. That is the equivalent of taking 25 million cars off the road every year.

In addition to that, we have carried 34 percent more passengers at the same time and more cargo as we did in 2000 without emitting any more carbon dioxide.

We have aspirational goals for the years coming up, short term and long term, that would take more off, and so you know, the proposals are nice, but the world can't live without aviation. We all know that. I tried to book a high-speed rail train to Brussels. I couldn't get one. So we are going to have to keep planes in the air, but we have to do better.

And it is a multipronged effort from the manufacturers to everybody across the board. From our perspective, the less fuel we burn, the better.

Mr. WOODALL. I appreciate that. We spend a lot of time challenging each other to do better. I wish we spent as much time celebrating the successes when we achieve them. It is worth celebrating, and I am grateful to you for sharing it.

Mr. Chairman, I yield back.

Mr. LARSEN. Thank you, Mr. Woodall.

The entire subcommittee will have an opportunity to show their love for the greening of aviation, aerospace, and airports sometime in the future when we have a hearing. I look forward to everyone's full support for things we need to do, including having been mocked on the floor of the House 10 years ago for introducing even a sense of Congress for an emissions training system during the cap and trade debate. I am glad we are all catching up to where I am. I appreciate that.

So with that, I recognize for 5 minutes Representative Norton from the District of Columbia.

Ms. NORTON. Thank you, Mr. Chairman.

I think it is important that you quickly held this hearing so we can learn from it, particularly since we don't know if there is going to be another shutdown.

And I would like to ask about the actions of the industry in preparation for shutdowns. I suppose I should go to Mr. Calio first.

Everyone saw the shutdown coming. We just couldn't believe it would really occur, but there it was. And, of course, there have been shutdowns in prior years repeatedly, and we have been unable to stop them. I don't know whether some of the bills that are coming forward will ever have that effect because there are some negatives to those bills as well.

So in seeing this shutdown coming, were there actions that the industry took or could take?

And in light of the fact that although we believe the current bill will be signed, are there actions being taken in preparation for a possible shutdown as we speak here today?

Mr. CALIO. Thank you, Madam Congresswoman.

Yes, from our perspective there is always planning operationally and what we can do in which we have to anticipate what will happen with the rest of our partners in the aviation community as a shutdown progresses and how we can make it up.

Frankly, there is a lot of piecing and patching that takes place to try to get airplanes in the air, to keep airplanes in the air, to handle the fact that we can't get new planes certified, the fact that we can't get airworthiness directives approved, the fact that the FAA inspectors are out of the system, you know, who we welcome because we need and want the oversight.

So a lot—

Ms. NORTON. You will be flying during a certain shutdown.

Mr. CALIO. Yes, we will.

Ms. NORTON. So are there actions with planes going to be in the air that you take or must take when you know that there is going to be a shutdown?

Mr. CALIO. Yes, we have to take overall account for what is going to be in the system and what the level of capability is to fly what number of planes and which number of passengers.

Ms. NORTON. So if there is going to be shutdown with various parts of your staff or various parts of the system, I should say, not being paid and, therefore, not sure that they will be there, are there actions that are taken considering that planes do not stop circulating during that time?

For example, are there fewer planes in the air? We were told that there were long periods of times when planes could not safely land. Those are the kinds of safety issues I am interested in.

Mr. CALIO. Well, what happens is, depending on the capability of the rest of the system, what the FAA will do is decrease the number of planes in the air; will stretch out the timing between flights, all of which slows the entire system down; and—

Ms. NORTON. And decreasing the number of planes, it may mean you have to cancel some flights?

Mr. CALIO. Yes, absolutely, which has a terrible impact on the people who are trying to fly, for the people and businesses that are waiting for their packages, and all of the knockon effects for the surrounding communities for people not flying, not going to hotels.

It all in all is a bad situation. Again, what we need to do is look forward and pass a bill like H.R. 1108, which will prevent any future shutdowns in this industry and allow for stable funding so we can make long-term plans rather than have to plan for shutdowns.

Ms. NORTON. Do any other witnesses have anything to say?

Mr. RINALDI. I would just add to that every time we approach a lapse in appropriations in the FAA, about 2 weeks out we start scaling down our modernization activity. We certainly start looking at our list of who is essential/nonessential, who is going to be coming to work, and basically, we stop moving the organization and the industry forward because we actually have to take a step back to actually prepare for the incoming shutdown or the eventual shutdown if it happens.

And all too often in high drama, Congress will pass it on the 11th hour and give us another 2 weeks. Well, all that does is give us another 2 weeks to prepare for another shutdown because those lists change all the time.

It is an endless circle with the hamster just pawing away going nowhere because we are preparing for shutdowns. It is ridiculous. It needs to end.

Ms. NORTON. I just want to thank all of our witnesses who had to confront this shutdown, that you were able to keep the United States of America safe in the air during the shutdown. So we owe you.

Thank you, Mr. Chairman.

Mr. LARSEN. Thank you, Representative Norton.

I move to now grant 5 minutes to Representative Carbajal of California.

Mr. CARBAJAL. Thank you, Mr. Chair.

And thank you for being here and sharing with us the important work the industries and the workers you represent do day in and day out to keep us all safe.

Mr. Rinaldi, in your testimony, you mentioned the personal toll the 35-day shutdown took on air traffic controllers. In my district, I represent three airports, Santa Maria, Santa Barbara, and San Luis Obispo, community airports.

I personally met with a number of air traffic controllers and other airport workers in my district who echoed some of the same concerns you outlined in your testimony. Many were anxious as to when their next paycheck would come or when the shutdown would end.

For some of the workers in my district, this took an extraneous toll on their personal lives, as some were recovering from losing friends and family members or homes during the Thomas fire and Montecito debris flow.

Can you speak further how the shutdown impacted staffing for smaller community airports?

Mr. RINALDI. Yes, sir. Thank you, and thank you for your passion for our members.

Certainly, I am assuming you are talking about Trisha Pesiri-Dybvik, which has been out there. She lost a home. They lost everything they had during the fires. Then to continue to come to work and not get paid while they are trying to rebuild their home a year later is devastating and demoralizing.

And it is around the country. It is not just at our core 30 airports or our large en route centers or our core 30 TRACONS. It is every airport out there. Controllers showed up every day to maintain the safety of the National Airspace System, with the uncertainty of when they were going to get a paycheck, and it weighed on them and they were doing side jobs just to put food on the table. And they didn't know how long it was going to last because there was a lot of rhetoric that was going on that this could go on for months or years, and people were really, really concerned at that point.

Mr. CARBAJAL. Thank you, Mr. Rinaldi.

Mr. Bunce, this shutdown took a huge toll on our economy. Could you share with us a little bit of the impact that this shutdown had on the manufacturing, aviation manufacturing industry?

What did it do to many of those production lines? What was the fiscal impact?

Mr. BUNCE. Again, it is because each company has a different level of activity and where they are in a production process of new aircraft. It could be all from one company was very close to bankruptcy to another company that was just burning a tremendous amount of cash, but they had more product lines to be able to absorb it.

So I cannot give you a quantification of the overall dollar amount of impact, but what you really do in that situation is you hurt our ability to be able to service markets all over the world because if you look at content-wise, most of the aircraft that are delivered in this very competitive marketplace have a lot of U.S. content.

So one example, there is an Italian company during the shutdown that was supposed to have FAA test pilots come over and fly the test aircraft in icing conditions in Europe so that they could deliver to a U.S. airline that is here on the east coast. Those aircraft have a significant amount of U.S. content.

Now, all of that flight tests now, they do not know when they are going to be able to get it done, and they may miss the icing season that they needed to be able to get those tests done.

So even what is happening overseas is impacting U.S. companies here because of the global nature of our trade back and forth.

Mr. CARBAJAL. Thank you.

Clearly, we have been told that the impact was over \$11 billion to our economy, \$3 billion of which we will not be able to get back. That was part of our GDP.

So thank you for sharing, and thank you all again for the work you do and those you represent.

Mr. Chair, I yield back.

Mr. LARSEN. Thank you, Representative Carbajal.

Now, I will do a second round of questions, and I will start by recognizing Mr. Graves for 5 minutes.

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman.

Mr. Rinaldi, do you believe that the FAA is going to hit its fiscal year 2019 targets for training controllers?

Mr. RINALDI. For training controllers or hiring controllers? For hiring through the academy?

Mr. GRAVES OF LOUISIANA. I am trying to remember their target. Was their target for training or hiring?

Mr. RINALDI. It is for hiring through the FAA Academy.

Mr. GRAVES OF LOUISIANA. OK. For hiring then.

Mr. RINALDI. I believe they are going to struggle to make that. They are going to try, but I think through the process and through the limited seats in the classes out in Oklahoma City, they are certainly going to try, but I think they are going to miss their target this year.

Mr. GRAVES OF LOUISIANA. Do you have any suggestions or recommendations on what we could be doing, I guess more specifically, what the FAA could be doing to address the failure rate of those graduating from the academy?

Mr. RINALDI. The failure rate is actually at the academy to screen, right? So, you know, we much prefer that we would screen them out at the academy than to bring people that quite possibly are not qualified into our facilities and train them on live traffic if they do not have the skills and the aptitude to become a certified air traffic controller.

So those screens that are happening out in the academy roughly depending on the class, it goes from 50, 60 sometimes success rate. I think that is a good path because the end product we are seeing out of the academy, we are seeing a higher success rate at our larger facilities.

Mr. GRAVES OF LOUISIANA. Thank you.

Mr. Perrone, do you have any other ideas on things we could be doing to help address or, I guess, mitigate some of the safety impacts that you have raised from the shutdown?

Mr. PERRONE. Thank you.

And I think the biggest thing is keep the Government open, keep people employed, and making it where they want to come to the agency and continue to keep the safest system in the world.

You know, the FAA reauthorization bill has some training and staffing models that we haven't gotten to yet because we were just starting and then the shutdown occurred. So we need to get involved in that.

It is just important that the Government stays open. You know, we have people that go to Oklahoma City and get trained at other locations continually throughout their career. It is not a one-time event. So the academy has to stay open for people to get trained.

New equipment comes onboard. They have to get out there to get trained and then go back and get on-the-job training and certification of equipment.

So it is a continuing process for us. It is not just a one time here is a new-hire and that is it. Myself, I spent over 2½ years in the academy in training. So it is important to keep everything going.

The FAA reauthorization bill has training that we want to work with the FAA on other ways or avenues of getting them trained, locally, colleges, other events. So we appreciate keeping the Government open.

Mr. GRAVES OF LOUISIANA. Thank you.

Ms. Nelson, I believe other folks commented on the performance, FAA leadership. I am just curious if you had any reaction in regard to their performance or suggestions on how things could be done differently in the event we would run into an awful situation like this in the future.

Ms. NELSON. I appreciate the leadership of the FAA, and certainly of all the people who came and tried to keep the system running and make it safe. When they talk about pulling down capacity and efficiency, that is a direct impact on my members' jobs.

And the conditions that the air traffic controllers were describing here that they were put in, where they were having to make a determination to keep the system safe, that that efficiency rate would have to go down. The capacity rate would have to go down and could result in massive furloughs for airline workers and a cascading effect from there.

So we actually appreciate Administrator Elwell's very close watch on this and work with us, but the fact of the matter is that we were hearing both out of the FAA and the TSA that the only way to keep us safe is to have certain long-term funding.

Mr. GRAVES OF LOUISIANA. Thank you.

Lastly, Mr. Chairman, I just want to make note there were a few comments about the shutdown that were made, and I want to commend and associate myself with the comments from Mrs. Craig regarding the Members not being paid.

And I think also her comments regarding Members having to show up, mandatory showing up 7 days a week, I think that is absolutely, absolutely what needs to happen.

And let me just go back, and I want to thank all of you. I want to thank the people you represent and say it again. I think it is awful that the folks who were impacted by this didn't deserve it, and they couldn't solve it. I think that is wrong.

And I think for us to continue to be paid under that scenario is inappropriate. It takes two sides to any negotiation, and while Chairman DeFazio and Mr. Larsen have introduced legislation that mitigates this impact in the aviation industry, I do think that we need to be focusing more broadly on shutdowns as well.

So thank you all very much for being here.

Mr. LARSEN. Thank you, Representative Graves.

So just to wrap up, I have a question and a couple of other additional comments. The question I have is for Ms. Nelson.

Would you like to clarify your comments on the general strike and what that actually means?

Ms. NELSON. I would be happy to.

So we have called for a general strike in response to this shutdown, and the reason for that is because nowhere in private industry would anyone come to work without getting paid. Through all of the pain that we went through as aviation workers during the bankruptcies, the first day order in those bankruptcies was to make sure everyone got paid, and there was no determination of who was essential and who was nonessential. The only way to keep the business running is to have everybody chip in and make sure that it works and make sure that people get paid.

So we had 2 million people who were not getting paid here and others who were forced to come to work without pay. This was un-

precedented, and we believe that it requires an unprecedented response.

So we were calling on all workers to talk about a general strike in response to this. If Congress can't do their job and can actually or if Washington can't do its job and can actually put us in a position where people are thrown into hopelessness, 2 million American workers and the rest of us who were feeling the impacts of that, where this doesn't happen anywhere else in the country, where we have said over and over again that we do not agree with making people come to work without getting paid, then it requires an unprecedented response from the American people.

And so we know that maybe we are not ready to have a general strike. We haven't even talked about it in this country for over 50 years. We believe that the conditions were that serious that we needed to talk about it.

Separately, our members will continue to assess the conditions at work if there is a continued shutdown, and in situations where we believe that it is unsafe, we will withhold our service and not go to work and make sure that the American people are safe.

Mr. LARSEN. Thank you.

I just ask unanimous consent the following items be entered in the record of today's hearing: two additional written statements from the National Business Aviation Association, and the Regional Airline Association.

Without objection, so ordered.

[The information follows:]

Statement from the National Business Aviation Association, Submitted for the Record by Hon. Larsen

Chairman DeFazio, Ranking Member Graves and members of the Committee on Transportation and Infrastructure, thank you for holding this important hearing to address the significant challenges faced by the entire aviation system during the most recent 35-day partial government shutdown. On behalf of our 11,000-member companies, the National Business Aviation Association (NBAA) is pleased to submit this statement.

The United States has the largest, safest and most diverse aviation system in the world, and this system functions so well thanks to tens of thousands of dedicated Federal Aviation Administration (FAA) employees. While much of the discussion during the most recent shutdown focused on our traffic control system, there were also negative impacts on the general aviation industry. General aviation annually contributes \$219 billion to the U.S. economy and provides more than 1 million jobs, many of which are dependent on a fully-functioning FAA.

One of the major challenges for NBAA members during the shutdown was reduced staffing at Flight Standards District Offices (FSDO). While certain aviation safety inspectors were deemed essential and worked without pay during the shutdown, the reduced staffing meant that only safety-critical functions could be performed. Safety is of course the number one priority; however, FSDOs perform other functions that general aviation operators rely upon to conduct their business.

This meant that during the most recent shutdown, Part 135 air charter operators were unable to add new aircraft to their fleets. For NBAA member company Jet Logistics Inc., which transports human organs for transplant using Part 135 aircraft, this presented a significant challenge. The company was prepared to add two new aircraft to its charter certificate as there is a growing need for operators who are qualified to conduct organ-transplant flights. However, due to the 35-day shutdown, the two new aircraft, representing a \$12 million-dollar investment were grounded, halting transplant flights.

For another Part 135 operator that provides cargo flights to a small community lacking service from larger carriers, the shutdown reduced their ability to provide service. In order for its pilots to be qualified and meet FAA requirements, the oper-

ator needed a check airman that had a current authorization. During the shutdown, this authorization could not be issued, and the operator was forced to ground four of its five cargo aircraft. This had serious financial consequences for both the cargo company and the clients that rely upon its service.

For flight training providers, the shutdown resulted in delays and slowdowns that reduced the number of qualified pilots available to the industry. To issue pilot certificates, flight training providers require regular authorizations from the FAA, and these could not be renewed during the shutdown. The inability of training providers to issue certificates had the potential to halt pilot training and prevent aircraft from having the necessary crews to operate.

During the shutdown, the qualifications for training center evaluators also expired and there was a backlog for approval of flight simulators. This made it impossible for organizations to conduct critical training activities, resulting in negative economic impacts. Training providers work in close partnership with the FAA, and for this system to generate qualified pilots, there simply cannot be extended government shutdowns where critical authorizations expire.

With passage of the FAA Reauthorization Act of 2018, the FAA Aircraft Registry was deemed essential, meaning that dedicated registry staff worked without pay during the shutdown. This change allowed aircraft transactions to continue, and NBAA appreciates the leadership of this committee in working to deem the Aircraft Registry as essential. However, although the registry was operating, the Office of Aeronautical Central Counsel was closed during the shutdown. This meant that aircraft registrations requiring a FAA legal opinion, including those involving limited liability corporations and trusts, could not be processed. Many companies utilize these structures for regulatory compliance and the inability to secure FAA legal opinions delayed aircraft being placed into service.

With the far-reaching impacts of the 35-day government shutdown on general aviation, NBAA supports a targeted solution to providing the FAA with funding certainty. We thank Chairman DeFazio and Aviation Subcommittee Chairman Larsen for their leadership in introducing H.R. 1108, the Aviation Funding Stability Act of 2019. Under this bill, the FAA would be permitted to use funds from the Airport and Airway Trust Fund to continue operations and pay employees during a shutdown. With balances in the trust fund growing, this approach provides funding certainty, while maintaining congressional oversight of our nation's airspace system. NBAA supports this legislation which ensures our aviation system continues to operate safely and efficiently.

The 11,000-member companies with NBAA appreciate the dedication and commitment of FAA employees during the extended shutdown. Through their work, our system continued operating, but we must understand the significant consequences and work to avoid another FAA shutdown in the future.

Statement from Faye Malarkey Black, President and Chief Executive Officer, Regional Airline Association, Submitted for the Record by Hon. Larsen

The Regional Airline Association (RAA) would like to express strong support for the February 13, 2019 Aviation Subcommittee hearing entitled, "Putting U.S. Aviation at Risk: The Impact of the Shutdown" and submits this written testimony to convey that another government shutdown would carry severe and unsustainable consequences for RAA's 22 regional airline members and the 153 million passengers we serve each year.

As you know, the U.S. aviation system drives \$1.6 trillion in annual economic activity and supports 10.6 million jobs, with \$446.8 billion in earnings. Regional airlines play a critical role in upholding this system and operate 41 percent of all commercial airline departures. Further, fully 409 airports (about two-thirds of our nation's commercial airports) are too small to support air service from larger airlines with larger aircraft, yet still need reliable air service to connect with loved ones, business contacts, travel destinations and the global economy. For these 409 airports, regional airlines provide the only source of scheduled, commercial air service. Regional airlines therefore play a singular, critical role for smaller communities and this air service to smaller communities also supports the nation's economy writ large. In fact, regional airline service to the nation's smallest airports alone (non-hub and small hub) drives a conservatively estimated \$134 billion in annual economic activity and supports more than 1 million jobs, with \$36.4 billion in earnings.

We appreciate the committee's leadership in holding this hearing today. RAA is gravely concerned at the prospect of another shutdown on February 15 and the negative impact this would carry for the commercial aviation system. While RAA firmly

believes the best scenario is avoiding future shutdowns altogether, we are especially grateful to Transportation and Infrastructure Committee Chairman DeFazio and Aviation Subcommittee Chairman Larsen for introducing H.R. 1108, the Aviation Funding Stability Act of 2019, to protect the U.S. aviation industry during any future shutdowns that do take place. We endorse and support this targeted approach, which assures stability and the continued safe operation of the aviation system in the event of another shutdown.

CONSEQUENCES FOR REGIONAL AIRLINES DURING GOVERNMENT SHUTDOWN

As you know, airlines, along with employees at the Federal Aviation Administration and Transportation Security Administration, are still overcoming the impacts of the previous shutdown. RAA and its members are deeply grateful to the dedicated professionals at the FAA, TSA and Customs and Border Protection who kept air travelers safe and secure despite missed paychecks and the accompanying financial hardship, as the shutdown continued. You already know some of the serious impacts on the FAA and the Transportation Security Administration, as the shutdown forced air traffic controllers to slow the flow of flights in the airspace to maintain high safety standards and led to long lines at security checkpoints at U.S. airports. In addition to these highly visible impacts, regional airlines experienced other shutdown-related consequences that impacted our operations and passengers. Future government shutdowns would bring these same consequences and more, with problems compounding as the duration extends.

FURLOUGH OF SAFETY REPORTING AND OVERSIGHT PROFESSIONALS IS UNACCEPTABLE

The FAA is a safety organization and therefore, all FAA functions are essential. During the last shutdown, FAA employees responsible for safety and reporting systems were furloughed. Additionally, guidance for the agency's Certificate Management Office (CMO) was interpreted inconsistently across field offices, and it was unclear which essential functions employees could perform. Due to this confusion, offices responded differently to non-emergency—but still difficult—situations encountered by air carriers. Over the course of the 35-day shutdown, guidance was clarified, and consistency improved. However, if subsequent shutdowns cannot be prevented, then essential and non-essential functions must have a clear definition, so individual Certificate Management Office professionals are not left to interpret which functions are essential and which are not.

PILOTS TRAINING, CERTIFICATIONS AND UPGRADES WERE DELAYED OR DISRUPTED

Because regional airlines are the career entry point for most Part 121 commercial airline pilots, our members are constantly hiring. Pilot demand is at an unprecedented high, and major airline hiring has led to high attrition and the need for a dynamic workforce. During the shutdown, the FAA was unable to issue new student pilot certificates, unable to participate in check rides, unable to administer the ATP written test for new pilots, unable to certify new Advanced Qualification Program (AQP) providers and unable to certify new Aircrew Program Designees (APD), which constrained training for countless prospective pilots and exacerbated a pilot shortage that is already seriously straining smaller U.S. communities. Carriers were also unable to upgrade pilots to new positions (from Second in Command [SIC] or First Officer, to Pilot in Command [PIC] or Captain) during the shutdown.

New hire training was further delayed or halted because the FAA was unable to process mandated pilot background checks through the FAA-provided data base during the shutdown. While some airlines were able to use the online Pilot Records Data base tool during the shutdown, others experienced access problems and were unable to obtain these records. This created an uneven playing field when some carriers could gain access and others could not. Many regional airlines also have Extended Envelope Training programs, training manual revisions, and Advanced Qualification Program curriculum awaiting FAA approval. The shutdown delayed these approvals and their timely incorporation into pilot training programs.

This complex matrix of observations and checks required to inspect qualifications of all pilots in various phases requires timely renewals and certification by the FAA in its role and of those authorized to provide the same. When one part of the system is delayed, there is a cascading effect on the entire system. In this way, the shutdown delayed planned operations and, in some cases, grounded pilots.

SHUTDOWN IMPACTED AIRCRAFT CERTIFICATION AND DELAYED NEW ROUTES

Airlines had difficulty or were unable to place new aircraft into service because the FAA did not have the resources to authorize new aircraft, leading to service dis-

ruptions and, in some cases, delayed starts of planned routes. Airlines must gain FAA approval to start new routes or increase frequency on existing routes. This is routine, and flight tickets are often sold well in advance with the understanding that new aircraft will be able to flow into the network. A shutdown disrupts this process because critical FAA certification and oversight work that is required to add aircraft to fleets is delayed or halted.

This has resulted in substantial revenue losses for airlines and service delays for communities. One regional airline is currently adding up to five new aircraft per month; if those aircraft cannot enter service, up to 30 flights daily may be disrupted. For small and non-hub airports with more limited connections to the air transport network, such as Essential Air Service (EAS) communities, these delays can have particularly devastating economic consequences. Unlike larger markets, these airports don't have a range of other service options to mitigate the consequences of disrupted air service. Passengers and businesses simply go elsewhere, and it is unclear if these communities can recover from a protracted shutdown.

CONCLUSION

A healthy, reliable and safe aviation system is only possible with the collaboration and cooperation of all aviation stakeholders and the Federal Government. Another shutdown would again seriously impact airline operations and should be avoided. However, if a shutdown cannot be prevented, steps must be taken to ensure the full operation of the FAA throughout.

The Regional Airline Association stands ready to support the Committee in its work to bring certainty to the commercial aviation industry and the Federal workers who support it, giving passengers confidence that airline operations will continue and their future travel plans will not be disrupted.

Thank you for this opportunity to provide comments.

Mr. LARSEN. And finally, I just want to note about the National Transportation Safety Board had to furlough employees. The NTSB is the independent agency responsible for investigating transportation accidents and advocating for safety improvements. It stopped work on more than 1,800 ongoing general aviation and limited aviation safety investigations, and it prevented the Board from working with the FAA to investigate 15 general aviation accidents that occurred during the 35 days.

So we want to be sure that was clear in the record.

If there are no further questions from the subcommittee and seeing none, I would like to say thank you to the witnesses for your testimony today. Your contribution to today's discussion has been informative. It has been helpful, and I hope we have set down into the record what the impacts of a shutdown is on aviation and aerospace.

I ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing.

And I ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing.

Without objection, so ordered.

If no other Members have anything to add, the subcommittee stands adjourned.

Thank you.

[Whereupon, at 12:20 p.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

Statement of Hon. Stacey E. Plaskett, a Delegate in Congress from the Virgin Islands

Thank you, Chairman DeFazio, and thank you to all the witnesses for your testimony.

The 35-day Trump shutdown had a significant, real-world impact on the Virgin Island Port Authority's readiness, ability to receive passengers efficiently and safely, and capacity to meet FAA's consent decree requirements. The 35-day shutdown worsened an already tenuous situation at the Territory's airports.

To date, the V.I. Port Authority has not been able to receive any feedback from the FAA on the status of its two applications for FAA natural disaster funding...all attributable to the 35-day Trump shutdown. These applications are for our two airports; one located in St. Croix, the second located in St. Thomas. This \$400 million in potential airport improvement program funding would provide both airports in the Virgin Islands sorely needed dollars for expansion and modernization projects.

Finally, long overdue repairs to the Instrument Landing System at our airport in St. Thomas has been delayed indefinitely because the FAA Tech Ops Department was furloughed during the shutdown. As everyone is acutely aware, my District was ravaged in 2017 by two category five (5) hurricanes. The impact of the 35-day government shutdown is immeasurable and we cannot afford another Trump shutdown as the Virgin Islands continues rebuilding its economy and a better, more resilient infrastructure.

Statement of Hon. Greg Stanton, a Representative in Congress from the State of Arizona

Mr. Chairman, thank you for holding this important hearing today to examine the impacts to the Federal Aviation Administration (FAA) of the recent 35-day partial government shutdown. I want to thank each of the witnesses for being here today and for sharing with us some of the impacts that resulted from the shutdown.

The government shutdown impacted 800,000 Federal workers across the country and had an \$11 billion impact on our economy according to the Congressional Budget Office.

The shutdown not only impacted air traffic controllers who worked long hours without pay, it also halted safety inspections and many other critical functions the FAA is charged with to keep our air system safe, secure, and efficient. The shutdown also had a ripple effect that extended beyond that to airlines, general aviation, airports, manufacturers, and passengers.

Last year, Phoenix Sky Harbor Airport hit a record for the number of passengers it served, more than 44.9 million, a 2.3 percent increase compared to 2017. And the Mesa Gateway Airport also saw a record setting year for passengers. To keep these passengers on the move and the air system running as it should, our Federal employees from air traffic controllers to Customs officials to security screeners are vital and without them, everything would come to a halt.

As someone who travels every week by air, I am thankful for the dedicated service of our Federal employees during the very difficult and challenging time of the shutdown. They performed admirably, and I appreciate the community in my state for coming together to support them. They should not have had to go through this and it is important we look for solutions to prevent this situation from happening again. It is vital that the FAA be able to function without interruption to ensure the safety of our air system and those passengers traveling through our nation's airports, like Sky Harbor and Mesa Gateway.

I want to thank the Chairman DeFazio and Chairman Larsen for the proposal they have advanced—the Aviation Funding Stability Act—which I support and have

cosponsored, to make sure the FAA is funded during a government shutdown by allowing it to tap the resources in the Airport and Airway Trust Fund. This would allow the FAA to keep operations funded and make sure our dedicated Federal employees are paid for their work. We shouldn't have to resort to this type of legislation, but it is clear we need to find a reasonable way forward should we ever be faced with another government shutdown.

Mr. Chairman, thank you again for holding this important hearing and for our witnesses here today.

**Statement from the American Federation of Government Employees,
Submitted for the Record by Hon. DeFazio**

FEBRUARY 12, 2019.

U.S. Representative PETER A. DEFazio
Chairman, House Transportation/Infrastructure Committee, Washington, DC.

U.S. Representative RICK LARSEN
Chairman, House Aviation Subcommittee, Washington, DC.

DEAR CHAIRMAN DEFazio AND CHAIRMAN LARSEN,

Our AFGE Local Bargaining Unit represents approximately 310 Federal employees at the Federal Aviation Administration William J. Hughes Technical Center in New Jersey. Our employees perform essential support of the National Airspace System (NAS). Air Traffic Control personnel rely on us for the deployment of new and improved NAS products and on expert repair and restoration services when Air Traffic Control systems fail.

We first wish to express our appreciation for your efforts to ward off FAA Privatization over the past years. Your subject matter expertise and advocacy resulted in Non-Privatization legislation essential to the FAA labor force.

You are both keenly aware of the risks to the FAA Mission, America's flying public, and the tens of thousands of FAA employees and stakeholders resulting from the Federal Government Shutdown of 2018/2019. We have become aware of your 02-13-19 "Putting U.S. Aviation at Risk: The Impact of the Shutdown" hearing.

We now write to you with a sense of urgency. We have unique insight on the Shutdown effects on the FAA Mission/Operations, on the Technical Center Community, small businesses and the economy of Southern New Jersey. AFGE Local 200 organized two Public Awareness Events bringing together Senator Menendez, Congressmen Norcross and Van Drew, four Unions, the FAA Managers Association, small businesses and most importantly Federal and contractor employees to share their hardships (all while meeting the FAA Mission).

https://www.pressofatlanticcity.com/news/breaking/federal-workers-rally-for-return-to-work-paychecks/article_47ad152f-6f40-56f0-be94-fe8a78628dbe.html

Please consider including AFGE 200 in deliberations on protecting the FAA from shutdowns as well as short term "CRs". We are capable of giving fact and data based input, as well as the human/community cost of FAA shutdowns as shown in the attached statement submitted for consideration in tomorrow's hearing.

STATEMENT FOR CONSIDERATION REGARDING HOUSE AVIATION HEARING: "PUTTING U.S. AVIATION AT RISK: THE IMPACT OF THE SHUTDOWN"

Good Day Chairman Larsen and Ranking Member Graves,
AFGE Local 200 represents approximately 310 Federal employees at the Federal Aviation Administration (FAA) William J. Hughes Technical Center located at Atlantic City International Airport, New Jersey.

Our employees are assigned to three Lines of Businesses in the FAA's Air Traffic Organization (ATO). They are: En Route & Oceanic Services, Terminal Services and Technical Operations.

Our employees perform Air Traffic System Hardware, Software and System Administration Engineering and Test, as well as Field Support and Restoration of the FAA National Airspace System (NAS). The systems used by Air Traffic Control personnel rely on us for the deployment of new and improved NAS products, expert repair and restoration services when systems fail.

Our prior organization was simply known as "Operational Support". Our motto was "AOS Makes It Work". The same is true today. And we keep it working. Even during Shutdowns.

EXECUTIVE SUMMARY

Furloughs offer no benefits to America. Quite the contrary. The calculated monetary cost of FAA Shutdowns is great. But worse, there is long-term decline in confidence, increased fear and uncertainty, and rising pessimism in the FAA Mission and among its workforce. The FAA value to the flying public and taxpayer can be lost.

FAA Shutdowns have directly resulted in failed privatization efforts. The Agency and our workforce had wrongly been held accountable for slipping schedules and cost overruns. Such artificial and unfounded findings have cut into morale, staffing/retention, and public perception of our workforce. Our mission suffers from Shutdowns.

THE UNIQUE FAA SHUTDOWN PROBLEM

Since 1995 when the FAA was authorized as an "Excepted Agency" under Federal law, the FAA has been shut down more than any other Federal Agency. We have been shutdown for long duration large appropriations lapses affecting multiple Executive Departments and Agencies. The recent damaging Shutdown being the worst. These "appropriation" events always involve non-aviation industry, non-FAA issues. As well, we have been shutdown individually as an Agency multiple times. For these "FAA reauthorization shutdowns", some have been over aviation issues while others have not.

Risking the integrity of the FAA Mission, NAS Modernization and NAS Operations during unrelated political fights is harmful to all three, to the flying public and to the American taxpayer. And though FAA Reauthorization requires robust debate to reach good business sense and structural/organizational improvement, shutdowns would only complicate meeting our mission.

THE UNIQUE FAA TECHNICAL CENTER SHUTDOWN PROBLEM

The Technical Center is largely not an operational facility. The main Technical Center function is to research, engineer, test and certify new NAS system and safety technology. Our workforce is split between Federal and contractor Subject Matter Expert employees. In the recent shutdown, AFGE 200 roughly estimates there were:

- 1,000 Federal Employees working without pay
- 1,000 Federal Employees furloughed without pay
- 1,000 Contractor employees layed off immediately or incrementally who who get no back pay

With the Technical Center the hub of Southern New Jersey Technology, many of our employees are spouses. Moms and sons. Dads and daughters. Families. Both or more may be "Feds". Or Contractors. Or a mix. The bottom line is that many families will lose income. Sometimes two incomes. Many times, the loss is for good.

Then there are the small businesses, many of them being minority or female owned. These businesses do not have 'corporate cash reserves'. What comes in, goes out. In many cases, finance and contracts processers were furloughed meaning several companies got paid nothing for work already performed before the Shutdown.

One community impact is our Daycare facility known as "The Little Flyers Academy". It is a non-profit entity. With little cash reserves and while trying to defer employee payments due to losses of income, "Little Flyers" almost had to lay off staff. Had layoffs occurred, "Little Flyers" may have lost its State certification to operate.

Further community and Small Business impacts can be addressed under separate cover.

THE UNIQUE FAA NAS OPERATIONAL SUPPORT AND AFGE 200 EMPLOYEE SHUTDOWN PROBLEM

As stated, our lines of business deploy of new and improved NAS products. This is often under the purview of Facilities & Engineering funding which is cutoff during shutdowns. We also perform expert repair and restoration services when systems fail. This is under Operations funding which is deemed "Essential".

This causes half of our workforce to be furloughed while the other is Working Without Pay. This is indeed unique in the FAA. Virtually all FAA Controllers of NATCA and the System Specialists of PASS work without pay. Our workforce is split between "Essential" and "Non-Essential" leading to inconsistencies and arguments over what is essential. A resulting morale issue is hard to measure because of the professionalism of our workforce. But though management must take the 'inequity' into account, there is no mechanism to do so.

THE SHUTDOWN EFFECT ON MODERNIZING THE NAS

On top of direct monetary shutdown losses, impacts to the many Operational and Acquisition programs under FAA responsibility must be considered. The calculations of the lost time and funds on these projects adds complex program and financial analyses not accounted for in program baselines. All time lost or expended is money lost.

Critical National Security Fixes, the modernization of existing programs, the development of new more efficient systems and programs all come to a halt. Shutdowns postpone efforts to improve the programs and systems. A shutdown even of a couple weeks can delay progress by months, therefore delaying the improvements critical to many systems currently fielded. When work stops, the trickledown effect can be felt in every aspect of the Government and our vendors/stakeholders. And short term "CRs" continuing delaying this work.

Finally, when Human Resources and Contract process overhead is added to our work, our core mission focus is not optimal. Through no fault of their own, employees/managers face pay, benefit, allotment, unemployment, unemployment repayment, leave accrual, canceled vacations, use or lose recovery issues. And worse.

AFGE Local 200 Conclusion—The FAA should never be Shutdown again.

Respectfully Submitted—The Officers and Employees of AFGE Local 200

APPENDIX

QUESTIONS FROM HON. STEVE COHEN FOR PAUL M. RINALDI

Question 1. In your testimony, you mentioned that the Federal Aviation Administration (FAA) scheduled the ASDE-X Taxiway Arrival Prediction (ATAP) Alerting System to be enabled on March 31, 2019, at the Memphis International Airport. This new technology enables air traffic controllers to detect potential runway conflicts by providing detailed coverage of movement on runways and taxiways.¹ Regrettably, due to the shutdown, the implementation date of this system has been postponed from March until June 2019. Can you describe in detail the financial and staff burdens that this placed and will continue to place on the Memphis International Airport?

ANSWER. There are direct financial and staff burdens related to the delay in implementing ATAP at Memphis International Airport (MEM). As the March 2019 implementation was being accomplished, it required staff from Memphis Air Traffic Control Tower to perform duties related to that implementation, which means the personnel were not available to perform their normal air traffic operations duties. In some cases they were backfilled with overtime to perform the operations duties. The implementation work must be repeated, which means additional time during which staffing at MEM will be affected. This delay also led to unexpected costs.

Question 2a. As you know, the Memphis Air Route Traffic Control Center has been heavily involved in training for the implementation of Controller Pilot Data Link Communications (CPDLC), also known as DataComm. This program allows the National Airspace System (NAS) to handle more traffic, reduce flight delays, route aircraft more efficiently and improve safety, all while reducing operational costs for airspace users.² Because of the shutdown, has the implementation date of DataComm changed?

ANSWER. Yes, the implementation date for Enroute Data Comm at Memphis ARTCC has changed. The original implementation date was December of 2018. NATCA is currently working with the FAA on a new implementation date, but at this time Memphis ARTCC is scheduled to re-start implementation in late 2020, with the goal of January of 2021 as an implementation date.

Question 2b. Will the completed training on the program have to be repeated?

ANSWER. Due to extended delay in the implementation date, all air traffic controller training related to CPDLC will have to be repeated. Due to many factors including the need to train our next generation of air traffic controllers, the decision was made to move Memphis Center from early in the old Data Comm implementation waterfall to late in the new waterfall.

Question 2c. Can you describe in detail the financial and staff burdens that this placed and will continue to place on the Memphis Air Route Traffic Control Center?

ANSWER. Memphis ARTCC, like many FAA facilities, has staffing challenges. Any and all additional tasks placed upon the workforce, which includes much more than just Data Comm, place a burden on staffing by removing air traffic controllers from operational duties for a period of time to complete the other task. In many cases, this requires back-fill overtime for the operational positions. Memphis ARTCC had already begun training on CPDLC, which took employees out of the operation and required staffing to be reallocated. With the new timeline and the need to re-train all employees, all financial expenditures from initial workforce training were in vain and like the training itself, the expenses will have to be born again.

¹ https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=23154&omniRss=fact_sheetsAoc&cid=103_F_S

² <https://www.harris.com/content/federal-aviation-administration-faa-data-communications-data-comm-user-information>

QUESTIONS FROM HON. HENRY C. "HANK" JOHNSON, JR. FOR PAUL M. RINALDI

Question 1. Instead of heeding the desperate pleas of our fellow Americans, President Trump doubled-down on the shutdown and stated, "Many of those people that won't be receiving a paycheck ... agree 100 percent with what I am doing." Is there any evidence within your membership that most federal workers supported a government shutdown in exchange for a down payment on a border wall?

ANSWER. NATCA did not poll our membership on this subject. NATCA represents its members on issues related to collective bargaining, workplace rights, employee benefits, and the safety of the National Airspace System.

Question 1a. Did President Trump meet with your organization during the shutdown to support this claim?

ANSWER. NATCA members contacted the Administration and Members of Congress to urge them to end the shutdown.

Question 1b. Did your organization make a public statement to support this assertion?

ANSWER. NATCA's national and local leadership who spoke publicly during the shutdown educated the public about the ever increasing safety concerns related to the shutdown and the stress and fatigue that the shutdown created for our membership.

Question 2. At the heart of our National Airspace System is Atlanta's Hartsfield-Jackson International Airport, which handles over 100 million passengers per year. The shutdown ended on January 25th and Atlanta hosted the Super Bowl on February 3rd. What kind of pressures and challenges did the shutdown impose on air traffic controllers who were preparing for air traffic volume like the Super Bowl?

ANSWER. The partial government shutdown made planning for the Super Bowl very difficult because the large-scale formal meetings that had been periodically occurring were stopped. These meetings were attended by NATCA, FAA, NFL, various airport authorities, fixed base operators, and any other stakeholders that would have been invited to participate in the planning for the Super Bowl. At least one formal meeting was canceled. This meeting would have been used to troubleshoot any foreseen issues, to better streamline the procedures, and validate any changes that had been investigated or implemented since the previous meeting. There was also no training related to Super Bowl operations provided to the workforce during the majority of the shutdown, which caused a lot of concern about whether the plan could be executed properly.

Question 2a. Is it true that air traffic controllers did not receive critical training and weekly safety meetings during the shutdown?

ANSWER. Controllers did not receive any kind of training on Super Bowl procedures until later in the shutdown. The FAA recalled a number of non-expected staff back to work. They were able to quickly produce and distribute training materials to the workforce and finalize some last minute planning to make sure we could execute the plan.

Question 2b. Could you detail what kind of information is shared at these meetings or what kinds of drills are reviewed?

ANSWER. The formal meeting covered items such as pre-coordinated arrival routing plans, parking procedures, flow slot time assignments, Traffic Management Unit restrictions, departure routings and procedures. There was a great deal of information covered that needed to be widely disseminated to a number of parties to ensure that everyone was operating on the same plan.

Question 2c. Do you think this impacted how prepared air traffic controllers felt prior to the Super Bowl?

ANSWER. Early on during the shutdown, the controllers absolutely felt like they weren't prepared for the Super Bowl. Once the FAA recalled a number of non-expected employees back to work and we were able to better prepare, the workforce began to relax and felt better prepared for the event.

Question 2d. Has your membership expressed whether the FAA expressed sensitivity to their situation or provided additional support when possible? Especially in the lead up to the Super Bowl?

ANSWER. FAA leadership was sensitive to the situation. They were, unfortunately, unable to help until later in the shutdown when they recalled a number of non-expected employees back to work. Those employees worked diligently to make sure the air traffic control workforce was as prepared as possible. FAA management held face to face briefings during team training times, distributed electronic training materials to the workforce and answered the concerns brought to them by the work-

force. FAA leadership and local management worked collaboratively with NATCA to make sure all of our concerns were addressed and all plans and procedures were executed as well as possible.

QUESTIONS FROM HON. STACEY E. PLASKETT FOR PAUL M. RINALDI

Question 1. Finally, long overdue repairs to the Instrument Landing System at our airport in St. Thomas has been delayed indefinitely because the FAA Tech Ops Department was furloughed during the shutdown. As everyone is acutely aware, my district was ravaged in 2017 by two category five (5) hurricanes. The impact of the 35-day government shutdown is immeasurable and we cannot afford another Trump shutdown as the Virgin Islands continues rebuilding its economy and a better, more resilient infrastructure.

Will you speak to what the impact is when an air traffic control tower is unable to operate its Instrument Landing System? Better put, how does the lack of this equipment impact the safety of the traveling public?

ANSWER. Although the lack of an Instrument Landing System has a definite effect on an air traffic facility, it doesn't necessarily affect the safety of the traveling public. The more likely effect would be a lack of accessibility. An Instrument Landing System (ILS) is defined as a precision runway approach aid based on two radio beams, which together provide pilots with both vertical and horizontal guidance during an approach to land. This allows aircraft to operate when the weather dictates that visual flight rules (VFR) are unusable. VFR requires a pilot to be able to see outside the cockpit, to control the aircraft's altitude, navigate, and avoid obstacles and other aircraft. Instrument flight rules (IFR) are required when VFR rules are not available due to weather conditions. When an ILS is unavailable, aircraft would be unable to operate, unless another IFR procedure is available.

QUESTIONS FROM HON. HENRY C. "HANK" JOHNSON, JR. FOR MICHAEL PERRONE

Question 1. Instead of heeding the desperate pleas of our fellow Americans, President Trump doubled-down on the shutdown and stated, "Many of those people that won't be receiving a paycheck...agree 100 percent with what I am doing." Is there any evidence within your membership that most federal workers supported a government shutdown in exchange for a down payment on a border wall?

ANSWER. While PASS did not survey our membership on that particular question, what was clear is federal employees preferred to be working and getting paid instead of reporting to work without pay while others were furloughed.

Question 1a. Did President Trump meet with your organization during the shutdown to support this claim?

ANSWER. No, he did not.

Question 1b. Did your organization make a public statement to support this assertion?

ANSWER. During the government shutdown our message internally and externally was consistent: end the shutdown and get federal employees paid.

QUESTIONS FROM HON. STACEY E. PLASKETT FOR NICHOLAS E. CALIO

Question 1. In my district air travel is essential to moving off our islands. Additionally, we presently are heavily reliant on tourism: cruise ships of course but the larger dollar spending come from those visitors who come by air and stay. So I am curious as to the change in the number of people who elected not to travel during the shutdown. Have we been able to quantify the number of cancelled flights by travelers?

ANSWER. Thank you for your question. A4A is not aware of a specific quantifiable number pertaining to 'cancelled flights' by travelers during the shutdown. Some individual airlines did put financial figures out on the impact reduced demand had on their operations, but not all.

However, as it pertains to the U.S. Virgin Islands (USVI) market, as a broad generalization, with respect to leisure travelers, those consumers traditionally tend to book their trips further in advance than business travelers. Given the USVI market reliance on tourism, there is a better chance those trips that were already booked and paid for were completed during the shutdown since airline operations were not directly impacted as far as maintaining a normal schedule. To the extent there was a subset of those leisure travelers who were also impacted government employees, it would be very speculative to account for direct cancellations for that reason or to ascertain how many consumers elected not to travel during that time frame.

As local data becomes available, we would recommend you work with your local airport officials to determine passenger number fluctuations compared to previous years for your particular market during that time period. Local airport officials may be in a better position to have that data on a real-time basis.

