AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

A WORK IN PROGRESS: IMPLEMENTATION OF THE FAA REAUTHORIZATION ACT OF 2018

(116–35)

HEARING

BEFORE THE

SUBCOMMITTEE ON
AVIATION

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

SEPTEMBER 26, 2019

Printed for the use of the
Committee on Transportation and Infrastructure

Available online at: https://www.govinfo.gov/committee/house-transportation?path=/browsecommittee/chamber/house/committee/transportation

U.S. GOVERNMENT PUBLISHING OFFICE

41–198 PDF WASHINGTON : 2020

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

PETER A. DEFAZIO, Oregon, *Chair*

ELEANOR HOLMES NORTON, District of Columbia
EDDIE BERNICE JOHNSON, Texas
ELIJAH E. CUMMINGS, Maryland
RICK LARSEN, Washington
GRACE F. NAPOLITANO, California
DANIEL LIPINSKI, Illinois
STEVE COHEN, Tennessee
ALBIO SIRES, New Jersey
JOHN GARAMENDI, California
HENRY C. "HANK" JOHNSON, JR., Georgia
ANDRÉ CARSON, Indiana
DINA TITUS, Nevada
SEAN PATRICK MALONEY, New York
JARED HUFFMAN, California
JULIA BROWNLEY, California
FREDERICA S. WILSON, Florida
DONALD M. PAYNE, JR., New Jersey
ALAN S. LOWENTHAL, California
MARK DESAULNIER, California
STACEY E. PLASKETT, Virgin Islands
STEPHEN F. LYNCH, Massachusetts
SALUD O. CARBAJAL, California, *Vice Chair*
ANTHONY G. BROWN, Maryland
ADRIANO ESPAILLAT, New York
TOM MALINOWSKI, New Jersey
GREG STANTON, Arizona
DEBBIE MUCARSEL-POWELL, Florida
LIZZIE FLETCHER, Texas
COLIN Z. ALLRED, Texas
SHARICE DAVIDS, Kansas
ABBY FINKENAUER, Iowa
JESÚS G. "CHUY" GARCÍA, Illinois
ANTONIO DELGADO, New York
CHRIS PAPPAS, New Hampshire
ANGIE CRAIG, Minnesota
HARLEY ROUDA, California

SAM GRAVES, Missouri
DON YOUNG, Alaska
ERIC A. "RICK" CRAWFORD, Arkansas
BOB GIBBS, Ohio
DANIEL WEBSTER, Florida
THOMAS MASSIE, Kentucky
MARK MEADOWS, North Carolina
SCOTT PERRY, Pennsylvania
RODNEY DAVIS, Illinois
ROB WOODALL, Georgia
JOHN KATKO, New York
BRIAN BABIN, Texas
GARRET GRAVES, Louisiana
DAVID ROUZER, North Carolina
MIKE BOST, Illinois
RANDY K. WEBER, SR., Texas
DOUG LAMALFA, California
BRUCE WESTERMAN, Arkansas
LLOYD SMUCKER, Pennsylvania
PAUL MITCHELL, Michigan
BRIAN J. MAST, Florida
MIKE GALLAGHER, Wisconsin
GARY J. PALMER, Alabama
BRIAN K. FITZPATRICK, Pennsylvania
JENNIFFER GONZÁLEZ-COLÓN, Puerto Rico
TROY BALDERSON, Ohio
ROSS SPANO, Florida
PETE STAUBER, Minnesota
CAROL D. MILLER, West Virginia
GREG PENCE, Indiana

SUBCOMMITTEE ON AVIATION

RICK LARSEN, Washington, *Chair*

ANDRÉ CARSON, Indiana
STACEY E. PLASKETT, Virgin Islands
STEPHEN F. LYNCH, Massachusetts
ELEANOR HOLMES NORTON, District of Columbia
DANIEL LIPINSKI, Illinois
STEVE COHEN, Tennessee
HENRY C. "HANK" JOHNSON, JR., Georgia
DINA TITUS, Nevada
JULIA BROWNLEY, California
ANTHONY G. BROWN, Maryland
GREG STANTON, Arizona
COLIN Z. ALLRED, Texas
JESÚS G. "CHUY" GARCÍA, Illinois
EDDIE BERNICE JOHNSON, Texas
SEAN PATRICK MALONEY, New York
DONALD M. PAYNE, JR., New Jersey
SHARICE DAVIDS, Kansas, *Vice Chair*
ANGIE CRAIG, Minnesota
GRACE F. NAPOLITANO, California
SALUD O. CARBAJAL, California
PETER A. DEFAZIO, Oregon *(Ex Officio)*

GARRET GRAVES, Louisiana
DON YOUNG, Alaska
DANIEL WEBSTER, Florida
THOMAS MASSIE, Kentucky
SCOTT PERRY, Pennsylvania
ROB WOODALL, Georgia
JOHN KATKO, New York
DAVID ROUZER, North Carolina
LLOYD SMUCKER, Pennsylvania
PAUL MITCHELL, Michigan
BRIAN J. MAST, Florida
MIKE GALLAGHER, Wisconsin
BRIAN K. FITZPATRICK, Pennsylvania
TROY BALDERSON, Ohio
ROSS SPANO, Florida
PETE STAUBER, Minnesota
SAM GRAVES, Missouri *(Ex Officio)*

CONTENTS

Page

Summary of Subject Matter vii

STATEMENTS OF MEMBERS OF THE COMMITTEE

Hon. Rick Larsen, a Representative in Congress from the State of Washington, and Chairman, Subcommittee on Aviation:
Opening statement 1
Prepared statement 3
Hon. Garret Graves, a Representative in Congress from the State of Louisiana, and Ranking Member, Subcommittee on Aviation:
Opening statement 5
Prepared statement 5
Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chairman, Committee on Transportation and Infrastructure:
Opening statement 6
Prepared statement 8
Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure:
Opening statement 10
Prepared statement 11
Hon. Eddie Bernice Johnson, a Representative in Congress from the State of Texas, prepared statement 121

WITNESSES

PANEL 1

Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration, accompanied by Lirio Liu, Acting Deputy Associate Administrator, Federal Aviation Administration:
Oral statement of Mr. Elwell 12
Prepared statement of Mr. Elwell 14
Hon. Joel Szabat, Acting Under Secretary for Policy, Department of Transportation, accompanied by Blane Workie, Assistant General Counsel, Office of the Secretary of Transportation:
Oral statement of Hon. Szabat 20
Prepared statement of Hon. Szabat 22

PANEL 2

Sara Nelson, International President, Association of Flight Attendants—CWA, AFL–CIO:
Oral statement 64
Prepared statement 65
Captain Bob Fox, First Vice President, Air Line Pilots Association, International:
Oral statement 77
Prepared statement 78
Gregory S. Walden, Aviation Counsel, Small UAV Coalition:
Oral statement 85
Prepared statement 87
Mark Baker, President and Chief Executive Officer, Aircraft Owners and Pilots Association:
Oral statement 92
Prepared statement 94

Page

John Breyault, Vice President, Public Policy, Telecommunications, and Fraud, National Consumers League:
Oral statement 99
Prepared statement 100
David Zurfluh, National President, Paralyzed Veterans of America:
Oral statement 105
Prepared statement 107

SUBMISSIONS FOR THE RECORD

Letter of September 26, 2019, from Brian P. Wynne, President and CEO, Association for Unmanned Vehicle Systems International, Submitted for the Record by Hon. Daniel Webster 32
Letter of September 26, 2019, from Ellen Saracini, Widow of Captain Victor J. Saracini, United Flight 175, Which Struck the South Tower of the World Trade Center on September 11, 2001, Submitted for the Record by Hon. Brian K. Fitzpatrick 60
Letter of September 23, 2019, from Consumer Reports, Submitted for the Record by Hon. Rick Larsen 121
Letter of July 3, 2019, to Hon. Elaine Chao, Secretary of Transportation, Submitted for the Record by Hon. André Carson 124

APPENDIX

Questions from Hon. Albio Sires to Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration 127
Questions from Hon. Sam Graves to Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration 127
Questions from Hon. Garret Graves to Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration 129
Questions from Hon. David Rouzer to Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration 131
Questions from Hon. Mark Meadows to Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration 131
Questions from Hon. Don Young to Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration 132
Questions from Hon. Greg Stanton to Hon. Joel Szabat, Acting Under Secretary for Policy, Department of Transportation 133
Questions from Hon. Sam Graves to Hon. Joel Szabat, Acting Under Secretary for Policy, Department of Transportation 134
Questions from Hon. Garret Graves to Hon. Joel Szabat, Acting Under Secretary for Policy, Department of Transportation 134
Questions from Hon. Pete Stauber to Hon. Joel Szabat, Acting Under Secretary for Policy, Department of Transportation 135
Questions from Hon. Don Young to Hon. Joel Szabat, Acting Under Secretary for Policy, Department of Transportation 137
Questions from Hon. Garret Graves to Sara Nelson, International President, Association of Flight Attendants—CWA, AFL–CIO 137
Questions from Hon. Sam Graves to Captain Bob Fox, First Vice President, Air Line Pilots Association, International 138
Questions from Hon. Garret Graves to Gregory S. Walden, Aviation Counsel, Small UAV Coalition 139

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

Peter A. DeFazio
Chairman

Katherine W. Dedrick, Staff Director

Sam Graves
Ranking Member

Paul J. Sass, Republican Staff Director

SEPTEMBER 23, 2019

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Aviation
FROM: Staff, Subcommittee on Aviation
RE: Subcommittee Hearing on "A Work in Progress: Implementation of the FAA Reauthorization Act of 2018"

PURPOSE

The Subcommittee on Aviation will meet on Thursday, September 26, 2019, at 10:00 a.m. in 2167 Rayburn House Office Building to hold an oversight hearing titled, "A Work in Progress: Implementation of the FAA Reauthorization Act of 2018." The hearing will examine progress within the Federal Aviation Administration (FAA) and Department of Transportation (DOT) in implementing the long-term FAA reauthorization act enacted last year.

BACKGROUND

On October 5, 2018, President Trump signed into law the FAA Reauthorization Act of 2018 (Pub. L. No. 115–254), a five-year reauthorization of FAA and DOT aviation programs. Enactment of the bill followed a series of short-term extensions of aviation program authorizations after the most recent long-term reauthorization expired on September 30, 2015.

The FAA Reauthorization Act of 2018 altogether contains more than 400 mandates for FAA and DOT to issue regulations, prepare reports to Congress, and conduct studies in the fields of aviation safety, airport infrastructure, agency management, and aviation consumer protections. This memo reflects the status of the more widely-watched mandates.

I. AVIATION SAFETY

A. Flight Attendant Fatigue

MANDATE	DEADLINE	STATUS
To FAA: Require that flight attendants receive a minimum of 10 hours' rest between flight duty periods.	November 4, 2018	DELAYED

While FAA in 2012 started requiring U.S. commercial airlines to provide pilots with a rest period of at least 10 consecutive hours preceding a flight duty period,[1] the flight and duty period limitation for flight attendants has not been updated since 1994.[2] In contrast to the rules for pilots, the current regulation allows a flight attendant to remain on duty for 14 hours with only an eight-hour break between flights.

The FAA bill directed the Secretary of Transportation to update the outdated rule by requiring a 10-hour minimum rest period for flight attendants between duty periods, establishing parity with pilots, by November 4, 2018. The bill also required airlines to adopt and submit, to FAA, fatigue risk management plans similar to those adopted for pilots to reduce the incidence of fatigue among flight attendants.[3]

The DOT missed the statutory deadline of November 4, 2018, for updating the 1994-era regulation, and in fact did not even initiate a rulemaking proceeding on the matter until February 21, 2019.[4] Although the FAA bill afforded the Secretary no discretion with respect to the contents of the revised rule, DOT has nonetheless determined that the rule revision must be subject to full notice-and-comment rulemaking requirements, further delaying issuance of a final rule. As of this writing, the Department was expected to issue an advance notice of proposed rulemaking this week, seeking comments on the costs to airlines and other interested stakeholders, and will follow up with a notice of proposed rulemaking in spring 2020.

Despite the Department's delay, some airlines—Alaska, Delta (starting in 2020), Frontier, Hawaiian, JetBlue, Southwest, and United—have voluntarily opted into the requirements of the bill by building at least 10 hours of rest into flight attendants' work schedules, while others, including multiple regional carriers that operate on behalf of American, Delta, and United, have not.[5]

B. Emergency Evacuations

MANDATE	DEADLINE	STATUS
To FAA: Establish minimum dimensions for passenger seats on air carrier aircraft.	November 4, 2019	PENDING
To FAA: Assess and report to Congress on whether the assumptions and methods for certifying compliance with evacuation requirements should be revised.	November 4, 2019	PENDING

The Federal Aviation Regulations require that the design of an airliner, by virtue of the locations and types of emergency exits, must permit all passengers to evacuate the aircraft within 90 seconds with half the exits blocked.[6]

But recent accidents have raised concerns about whether all passengers can, in fact, evacuate an airliner in 90 seconds, given passengers' propensity to carry on large bags such as roll-aboard suitcases and other behavioral shifts over the last decade. For example, the NTSB concluded that it took *at least* 2 minutes and 21 seconds—51 seconds longer than the FAA assumes—for 161 passengers to evacuate a lightly-loaded American Airlines 767–300ER after an uncontained engine failure and fire during takeoff at Chicago O'Hare in 2016.[7] In its January 2018 report on that accident, the NTSB concluded that:

> [E]vidence of passengers retrieving carry-on baggage during this and other recent emergency evacuations demonstrates that previous FAA actions to mitigate this potential safety hazard have not been effective. Therefore, the NTSB recommends that the FAA conduct research to (1) measure and evaluate the effects of carry-on baggage on passenger deplaning times and safety during an emergency evacuation and (2) identify effective counter-

[1] 14 C.F.R. part 117.

[2] 59 Fed. Reg. 42974 (Aug. 19, 1994); *see also* 60 Fed. Reg. 52625 (Oct. 10, 1995) (detailing the date of compliance with respect to the duty limitations and rest requirements in the 1994 final rule).

[3] Pub. L. No. 115–254, § 335.

[4] Dep't of Transp., Report on DOT Significant Rulemakings, August 2019, available at https://www.transportation.gov/sites/dot.gov/files/docs/regulations/350431/august-2019-significant-rulemaking-reportfinal.docx.

[5] Information provided by the Association of Flight Attendants (AFA) (on file with staff).

[6] *See* 14 C.F.R. §§ 25.803, 25.807; 14 C.F.R. part 25, app'x. J.

[7] Nat'l Transp. Safety Bd., NTSB/AAR–18/01, *Uncontained Engine Failure and Subsequent Fire, American Airlines Flight 383, Boeing 767–323, N345AN, Chicago, Illinois, October 28, 2016*, at 27 (2018).

measures to reduce any determined risks, and implement the countermeasures.[8]

The FAA is responding to those recommendations. Moreover, in-cabin video footage of passengers evacuating Emirates flight 521, a Boeing 777–300 that crash-landed in Dubai in 2016, shows passengers retrieving large carry-on items from overhead bins despite smoke billowing into the cabin from a large fire on the wing that eventually destroyed the aircraft.[9] And the U.K. Civil Aviation Authority issued a notice to U.K. airlines in 2015 warning that "significant numbers of passengers attempt to take hand baggage with them when evacuating an aircraft" and encouraging the airlines to change their procedures to address this trend.[10]

In addition to passengers' propensity to carry on large bags, reduced spacing between seats to accommodate more passengers per flight may affect cabin evacuation times. Accordingly, the FAA bill directs FAA to "issue regulations that establish minimum dimensions for passenger seats on aircraft operated by air carriers . . ., including minimums for seat pitch, width, and length, and that are necessary for the safety and health of passengers."[11]

The bill also directs FAA to reassess the assumptions and methods for certifying transport-category airplane designs' compliance with the requirement that evacuations must be possible within 90 seconds.[12]

C. Secondary Cockpit Barriers

MANDATE	DEADLINE	STATUS
To FAA: Require installation of a secondary cockpit barrier on each newly manufactured airplane delivered to a major air carrier.	October 5, 2019	LIKELY DELAYED

After the terror attacks of September 11, 2001, FAA and other civil aviation authorities worldwide mandated that passenger airlines equip their fleets with impenetrable cockpit doors. However, the Air Line Pilots Association and other stakeholders have expressed continued concern that, when one pilot leaves the cockpit during flight (to use the lavatory, example), a passenger could forcibly gain access to the cockpit during the moments when the cockpit door is open. In those moments, the only protection for the cockpit is a flight attendant or service cart stationed in front of the cockpit entry area.

To protect the cockpit during these moments of vulnerability, aviation vendors have developed a device called a secondary cockpit barrier, which flight attendants can extend from one side of the cabin to the other, near the forward lavatory and galley, when a pilot needs to exit the cockpit during flight. The barrier would make it much more difficult for a would-be attacker to reach the cockpit entryway while the cockpit door is open.

Accordingly, the FAA bill directed FAA to require installation of secondary cockpit barriers on "each new aircraft that is manufactured for delivery to a passenger air carrier" in the United States by October 5, 2019.[13]

We do not, however, expect FAA to meet the statutory deadline. On June 20, 2019, FAA tasked a working group of the standing Aviation Rulemaking Advisory Committee to make recommendations regarding, among other things, "a full range of options to achieve the objectives of [the mandate]" and "costs and benefits for recommended actions and alternative actions." The working group's recommendations

[8] *Id.* at 66. The Safety Board found that "some passengers evacuated from all three usable exits with carry-on baggage. In one case, a flight attendant tried to take a bag away from a passenger who did not follow the instruction to evacuate without baggage, but the flight attendant realized that the struggle over the bag was prolonging the evacuation and allowed the passenger to take the bag. In another case, a passenger came to the left overwing exit with a bag and evacuated with it despite being instructed to leave the bag behind." *Id.* at 65.

[9] The Aviation Herald, *Emirates Boeing 777–300 Registration A6–EMW*, http://avherald.com/h?article=49c12302&opt=0; YouTube (Aug. 3, 2016), https://www.youtube.com/watch?v=nUg7zOBB3Ig.

[10] U.K. Civil Aviation Auth., Safety Notice No. SB–2015/06, "Management of Cabin Baggage in the Event of an Aircraft Evacuation" (Oct. 23, 2015), *available at* http://publicapps.caa.co.uk/docs/33/SafetyNotice2015006.pdf.

[11] Pub. L. No. 115–254, § 577.

[12] *Id.* § 337.

[13] *Id.* § 336.

were due to FAA on September 19, 2019,[14] although FAA staff advised that the working group will request a short extension of the deadline to finalize the recommendations.

D. LITHIUM BATTERIES

MANDATE	DEADLINE	STATUS
To DOT: Conform U.S. safety regulations regarding air transport of lithium batteries with international standards.	January 3, 2019	COMPLETED

For some years, the aviation community has known that lithium batteries transported as cargo pose special risks to the safety of flight. When ignited, either through self-induced thermal runaway within a single cell or by an independent source, they burn at extremely high temperatures, and traditional aircraft fire suppressants cannot extinguish the ensuing fire.

FAA testing in 2015 established that a fire involving just eight lithium-ion batteries at 50 percent charge in the cargo hold of a passenger airplane could be uncontrollable and result in catastrophic failure of the airplane structure.[15] Recognizing the safety hazards associated with lithium battery shipments, the U.N. International Civil Aviation Organization (ICAO) voted to ban bulk shipments of lithium batteries from the cargo holds of passenger jets in 2016 until safety regulators and airframe manufacturers can understand more about preventing and containing lithium-fed fires.

The FAA and other civil aviation authorities have likewise begun requiring that spare lithium batteries be placed in carry-on baggage, rather than checked baggage, so that fires can be detected and extinguished before they become uncontrollable. Regulators have also considered banning all portable electronic devices (PEDs) from checked baggage for the same reason; a U.S. submission in 2017 to the ICAO Dangerous Goods Panel stated that FAA testing "indicates that large PEDs in checked baggage mixed with an aerosol can produce an explosion and fire that the aircraft cargo fire suppression system . . . may not be able to safely manage," leading to "the loss of the aircraft."[16]

The FAA bill directed DOT to harmonize U.S. standards with those adopted by ICAO with respect to air transportation of lithium batteries.[17] The Department issued an interim final rule fulfilling that mandate on March 6, 2019.[18] Importantly, the interim final rule prohibits the carriage of lithium batteries as cargo on passenger aircraft and limits the state of charge of lithium batteries shipped on all-cargo aircraft to no more than 30 percent.

E. UNMANNED AIRCRAFT SYSTEMS

MANDATE	DEADLINE	STATUS
To FAA: Require recreational UAS operators to pass an aeronautical knowledge and safety test and receive FAA-authorization to fly in controlled U.S. airspace. In addition, permit the FAA to issue standards for remotely identifying recreational UAS operators and any other parameters or standards to maintain the safety and security of the NAS.	April 3, 2019 (aeronautical knowledge and safety test); remainder of provision self-enacting	DELAYED

[14] FAA, *Aviation Rulemaking Advisory Committee Task Notice*, June 20, 2019, *available at* https://www.faa.gov/regulations_policies/rulemaking/committees/documents/media/Section%20336%20Secondary%20Barrier%20ARAC%20Tasking%20Notice%20(6-20-19)%20Corrected%206-21-19.pdf.

[15] *See, e.g.*, https://www.fire.tc.faa.gov/ppt/systems/Oct15Meeting/Maloney-1015-Lithium_Battery_Vent_Gas.pptx.

[16] Angela Stubblefield, *Portable Electronic Devices Carried by Passengers and Crew* (Oct. 27, 2017), available at https://www.icao.int/safety/DangerousGoods/DGP26/DGP.26.WP.043.2.en.pdf.

[17] Pub. L. No. 115–254, § 333.

[18] *Hazardous Materials: Enhanced Safety Provisions for Lithium Batteries Transported Aboard Aircraft*, 84 Fed. Reg. 8006 (March 6, 2019).

Unmanned aircraft systems (UAS) are proliferating in the national airspace system (NAS). In fact, in its most recent aerospace forecast, the FAA estimates the hobbyist (recreational or model) UAS fleet will increase from 1.25 million units to as many as 1.66 million units by 2023. For the non-model (commercial) UAS fleet, the FAA projects as much as a 36 percent annual growth rate over the next five years, from 277,000 units in 2018 to nearly 1.3 million units by 2023.[19] UAS offer a virtually unlimited number of potential applications, including inspecting critical infrastructure, surveying wide swaths of land to monitor wildlife and inventory forests, and delivering commercial products to homes and medical supplies to isolated areas.

However, the full integration of UAS into the NAS is at a relative standstill due to stalled FAA activity and continuing concerns over the safety and security of UAS operations, particularly regarding the risks UAS can pose to airspace users and people and property on the ground.[20] In addition, the identification of UAS operators is a key concern of FAA and law enforcement community. On December 20, 2018, FAA issued a request for information to inform an ongoing remote identification rulemaking. To date, FAA has not issued a proposed rule on remote identification standards for UAS operations.

The FAA bill includes numerous provisions intended to accelerate the safe and efficient integration of UAS into the NAS. Most notably, section 349 of the Act authorizes FAA to fully regulate *hobby and recreational* UAS, which had been prohibited previously under Federal law. The provision permits the FAA to apply any requirements or standards on any UAS operator (commercial or recreational) consistent with maintaining the safety and security of the NAS, which should have allowed the FAA to move forward on its remote identification standards rule described herein. The provision also requires FAA, by April 2019, to develop an aeronautical knowledge and safety test for UAS operators to pass before flying in U.S. airspace, and requires recreational users to receive FAA authorization before flying in controlled airspace, which captures commercial service airports.

Beyond this foundational framework, the bill requires FAA to update its outdated comprehensive plan for integrating UAS into the NAS and report to Congress on the agency's strategy to align and leverage its work across programs and avoid duplication of its efforts;[21] update existing regulations to authorize the delivery of goods and property by UAS for compensation or hire;[22] update and improve processes to allow public operators to use UAS quickly in response to disasters or emergencies;[23] develop a strategy to provide outreach to State and local governments, including law enforcement and first responders, on how to use UAS to enhance their own work and respond to public safety threats posed by UAS.[24] The bill also prohibits the use of UAS armed with dangerous weapons[25] and creates a criminal penalty for operators that operate UAS and recklessly interfere with wildfire suppression or emergency response efforts,[26] or disrupt the operation of a manned aircraft.[27] Finally, the bill requires the FAA to develop a plan for the short- and long-term implementation of UAS traffic management services,[28] which will include systems necessary to manage UAS traffic in low-altitude airspace, allowing FAA to communicate real-time airspace status and constraints to operators, and provide services to prohibit UAS from operating in certain airspace or colliding with other aircraft.[29]

---

[19] *FAA Aerospace Forecasts, Fiscal Years 2019 to 2039: Unmanned Aircraft Systems*, at 43, 48, *available at* https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/Unmanned_Aircraft_Systems.pdf.

[20] The FAA receives more than 100 UAS sighting reports each month. While the Government Accountability Office (GAO) has concluded that the extent to which these reports represent actual incidents of unsafe UAS use is unclear, the volume of the reported sightings reflects the risk of collision between UAS and manned aircraft near airports, critical infrastructure, and over populated areas. *See* GAO, *Small Unmanned Aircraft Systems, FAA Should Improve Its Management of Safety Risks*, GAO–18–110 (May 2018).

[21] Pub. L. No. 115–254, § 342.

[22] *Id.* § 348.

[23] *Id.* §§ 353, 368.

[24] *Id.* § 366.

[25] *Id.* § 363.

[26] *Id.* § 382.

[27] *Id.* § 384.

[28] *Id.* §§ 376, 377.

[29] NASA, *UAS Traffic Management*, https://utm.arc.nasa.gov/index.shtml.

F. Cabin Air Quality

MANDATE	DEADLINE	STATUS
To FAA: Establish educational materials for aircrews and mechanics about how to respond to incidents on board aircraft involving smoke or fumes.	October 5, 2019	PENDING
To FAA: Issue guidance for aircrews and mechanics about how to report smoke or fume incidents through the FAA's Service Difficulty Reporting System.	April 3, 2019	DELAYED
To FAA: Commission a study by the Airliner Cabin Environment Research Center of Excellence to assess potential health effects of contaminants from bleed air and to identify mitigating technologies.	April 3, 2019	DELAYED
To FAA: Report to Congress on the feasibility of technologies to monitor the purity of aircraft air supply in flight.	April 6, 2020	PENDING

The year 2018 began with yet another example of a worryingly frequent occurrence in civil aviation. On January 6, a U.S. jetliner flying from Boston to Punta Cana returned to Boston after passengers and crew reported noxious fumes in the cabin.[30] The fumes "caused passengers and crew to feel unwell," according to a media report, although no one was taken to a hospital. Similar examples abound. In fact, an airline pilot union estimates that as many as 20,000 such events have occurred over the past decade.[31] Another recent media report details accounts of several deaths of flight crew or passengers in which exposure to toxic fumes on board aircraft may have been a contributing factor.[32]

Labor stakeholders and others have raised concern about these and other incidents in which passengers and crew have been sickened by cabin fumes, which in many cases originate in air that is "bled" off of engines. The bill contains provisions directing FAA to issue guidance to aircrews and mechanics on responding to incidents involving smoke or fumes in cabins, as well as to commission a study on the issue and mitigation options.[33]

II. AIR TRAVEL ACCESSIBILITY AND CONSUMER PROTECTION

A. Accessibility in Air Travel

MANDATE	DEADLINE	STATUS
To U.S. Access Board in consultation with DOT: Requires a study on the feasibility of in-cabin wheelchair restraint systems.	October 5, 2020	PENDING
To DOT: Requires development, if appropriate, of specific recommendations regarding improvements to wheelchair assistance provided by air carriers.	No deadline	PENDING
To DOT: Requires development of an "Airline Passengers with Disabilities Bill of Rights" describing the basic protections and responsibilities of air carriers, their employees and contractors, and people with disabilities.	No deadline	PENDING

[30] Simon Hradecky, *Incident: Jetblue A320 Near Boston on Jan 6th 2018, Fumes on Board*, The Aviation Herald (Jan. 7, 2018), http://avherald.com/h?article=4b3573e5&opt=0.

[31] Bloomberg, *'Toxic Fume Events' on Planes Worry Airline Workers*, Fortune (Aug. 9, 2017), http://fortune.com/2017/08/09/dangerous-cabin-fumes-planes/.

[32] Kate Leahy, *'There Are Hundreds of Sick Crew': Is Toxic Air on Planes Making Frequent Flyers Ill?*, The Guardian (Aug. 17, 2017), https://www.theguardian.com/science/2017/aug/19/sick-crew-toxic-air-planes-frequent-flyers-ill.

[33] Pub. L. No. 115–254, § 326.

MANDATE	DEADLINE	STATUS
To DOT: Requires rulemaking defining "service animal" and development of standards for passengers bringing service animals and emotional support animals in aircraft cabins.	April 6, 2020	PENDING
To DOT: Directs DOT to establish advisory committee for the air travel needs of passengers with disabilities.	No deadline	PENDING
To DOT: Requires review, and if necessary revision, of applicable regulations to ensure that passengers with disabilities who request assistance while traveling in air transportation received dignified, timely and effective assistance.	April 3, 2019	DELAYED

1. Advisory Committee

The bill contains numerous provisions intended to improve the air travel experience for passengers with disabilities. Among other things, the bill requires DOT to establish an advisory committee for the air travel needs of passengers with disabilities and directs the committee to assess current regulations with respect to practices for ticketing, advance seat assignments, and stowage of assistive devices for passengers with disabilities.[34] DOT is currently reviewing nominations for committee membership and expects to announce the committee's membership in the coming weeks.

2. Service and Emotional Support Animals

The bill also directs DOT to promulgate standards governing the transportation of service animals and emotional support animals on airline flights.[35] A notice of proposed rulemaking is set to be released by November 2019 and was sent to the Office of Management and Budget (OMB) in August 2019. For the interim, DOT released a policy statement on service animals in August 2019.[36] In the policy statement, DOT stated airlines should be prepared to accept "the most commonly recognized service animals (i.e., dogs, cats, and miniature horses) . . . for transport" but may decline to accept "snakes, other reptiles, ferrets, rodents, and spiders."[37] The DOT will also permit airlines to seek "credible verbal assurance" from a passenger that the passenger is traveling with service or support animal—not simply a pet.[38]

B. Consumer Protection

1. Cell Phones and E-Cigarettes

The bill contains two self-executing provisions—provisions that are automatically effective without the need for rulemaking by DOT or FAA—to improve airline passengers' on-board experience. First, the bill prohibits passengers from making or receiving cell phone calls during flight.[39] Second, the bill prohibits the use of e-cigarettes in flight.[40]

[34] *Id.* §§ 438, 439.
[35] *Id.* § 437.
[36] *Guidance on Nondiscrimination on the Basis of Disability in Air Travel*, 84 Fed. Reg. 43480 (Aug. 21, 2019).
[37] *Id.* at 43481.
[38] *Id.* at 43482.
[39] Pub. L. No. 115–254, § 403.
[40] *Id.* § 409.

2. Involuntary Denied Boarding

MANDATE	DEADLINE	STATUS
To DOT: Issue a final rule to clarify that there is no maximum amount of compensation that an air carrier must pay to a passenger who has been involuntarily denied boarding as the result of an oversale.	December 4, 2018	DELAYED

An oversold flight is one on which more passengers hold confirmed reserved space than there are seats available. Before bumping a passenger from an oversold flight, an airline must first seek volunteers to forego their reserved space on the flight (often for compensation).[41] But if an insufficient number of passengers volunteer to take another flight, the airline is permitted to begin bumping passengers in accordance with the airline's boarding priority rules—which may include factors such as a passenger's time of check-in, the fare paid by the passenger, and the passenger's status as a frequent flyer.[42] Subject to limited exceptions, under current requirements, bumped passengers are entitled to denied boarding compensation in amounts that vary based on the length of the delay, up to 400 percent of their one-way fare (but not more than $1,350).[43]

The FAA bill directs DOT to revise its regulations to clarify that, among other things, "there is not a maximum level of compensation an air carrier or foreign air carrier may pay to a passenger who is involuntarily denied boarding as the result of an oversold flight."[44] The Department has not yet complied with that mandate.

3. Refunds of Fees for Unused Services

MANDATE	DEADLINE	STATUS
To DOT: Issue regulations requiring each air carrier to promptly refund any ancillary fees that a passenger paid for services that the passenger did not receive.	October 5, 2019	PENDING

The bill directs DOT to issue regulations requiring airlines to refund ancillary fees paid for services that a passenger does not receive. The DOT is combining this requirement with a related requirement from the short-term extension bill enacted in 2016 that directs DOT to require refunds of checked baggage fees when checked bags arrived late.[45]

III. AVIATION WORKFORCE

MANDATE	DEADLINE	STATUS
To FAA: Establish a Youth Access to American Jobs in Aviation Task Force.	January 3, 2019	DELAYED
To FAA: Appoint members to a Women in Aviation Advisory Board.	July 5, 2019	DELAYED
To FAA: Issue final rule to modernize training programs at aviation maintenance technician schools.	April 3, 2019	DELAYED
To DOT: Establish two grant programs to support aircraft pilot and aviation maintenance technical worker education and development.	Self-enacting, with grants to be issued in fiscal years 2019–2023 (subject to appropriations)	ON TIME

[41] 14 C.F.R. § 250.2b(a).
[42] *Id.* § 250.3(b).
[43] *Id.* § 250.5.
[44] Pub. L. No. 115–254, § 425(e).
[45] Pub. L. No. 114–190, § 2305.

The FAA bill included several provisions aimed at increasing the aviation workforce pipeline, including directing the FAA to establish a Youth Access to American Jobs in Aviation Task Force to develop recommendations and strategies on how the FAA can facilitate and encourage high school students to enroll in STEM courses and courses of study related to aviation careers;[46] create and facilitate the Women in Aviation Advisory Board to promote organizations and programs that provide education, training, mentorship, outreach, and recruitment of women into the aviation industry;[47] issue a final rule to modernize the training programs at aviation maintenance technician schools;[48] and establish aviation workforce development grant programs ($5 million per year for FY 2019–23) to support the education of future pilots and the education and recruitment of aviation maintenance technical workers.[49]

The appendix at the end of this memo contains status updates from FAA on additional provisions.

WITNESSES

PANEL 1

- Mr. Daniel K. Elwell, Deputy Administrator, FAA
- The Hon. Joel Szabat, Acting Undersecretary for Policy, DOT

PANEL 2

- Ms. Sara Nelson, President, Association of Flight Attendants
- Capt. Bob Fox, First Vice President, Air Line Pilots Association, International
- Mr. Greg Walden, Aviation Counsel, Small UAV Coalition
- Mr. Mark Baker, President, Aircraft Owners and Pilots Association
- Mr. John Breyault, Vice President, Public Policy, Telecommunications, and Fraud, National Consumers League
- Mr. David Zurfluh, National President, Paralyzed Veterans of America

[46] Pub. L. No. 115–254, § 602.
[47] *Id.* § 612.
[48] *Id.* § 624.
[49] *Id.* § 625.

APPENDIX

Additional Work From FAA Bill in Progress

Unless otherwise noted, FAA and DOT have not specified estimated dates of fulfillment of the mandates listed below.

Section	Title	Description	Statutory Deadline	Status
		Airplane Noise		
173	Alternative airplane noise metric evaluation deadline.	FAA to complete evaluation of alternative metrics to the current day-night decibel level measurement.	10/5/19	FAA has completed the evaluation as directed.
175	Addressing community noise concerns.	FAA to consider feasibility of dispersal headings or other lateral track variations to address noise concerns when proposing new area navigation departure procedures or amending existing procedures under certain conditions.	None	FAA is finalizing the formal process to use related to this section.
176	Community involvement in FAA NextGen projects located in metroplexes.	Report on review of FAA's community involvement practices for NextGen projects in metroplexes.	6/2/19	The review is complete. FAA is working on this report.
179	Airport noise mitigation and safety study.	Report on FAA's review and evaluate existing studies of the relationship between jet aircraft approach/takeoff speeds and corresponding noise impacts communities.	10/5/19	The study has been initiated consistent with this section. The report on the study is due in 10/2020.
180	Regional Ombudsman	FAA regional administrators to designate regional ombudsmen.	10/5/19	All ombudsmen have been designated and are going through training.
188	Study of Day-Night Average Sound Levels.	FAA report on results of study to evaluate metrics to average day-night level standard.	10/5/19	FAA has completed the evaluation. FAA is working on this report.
189	Study on potential health and economic impacts of overflight noise.	FAA report on study with higher ed. institute on health impacts of aircraft noise on residents.	7/2/19	FAA has formally entered into the partnership with institutions of higher education (MIT & Boston University).
		Aviation Safety		
303	Safety critical staffing	DOT–IG report to Congress on results of audit of FAA Safety Critical Staffing.	12/29/19	FAA has updated the Aviation Safety Inspector Staffing Model. FAA will adopt future updates to the model as new data becomes available and recommendations are received by the future DOT IG audit required in Section 303(b).
308	FAA and NTSB review of general aviation safety.	FAA & NTSB conduct study of general aviation safety and report to Congress.	10/5/19	FAA initiated study and held first meeting with NTSB staff on 10/31/2018. Recommendations from the study and report to Congress are being developed.
317	Helicopter fuel system safety	Issue bulletin notifying operators of system modifications.	4/3/19	Completed 12/3/18.

Section	Title	Description	Statutory Deadline	Status
318	Medical certification standards of air balloons operators.	FAA to modify 14 C.F.R. § 61.3(c), to require medical certification of balloon pilots operating for compensation.	4/3/19	FAA is pursuing required rulemaking. FAA is working with the Balloon Federation on a voluntary program to encourage balloon pilots to pursue second class medical certificates.
333	Safe air transport of lithium cells & batteries.	Report to Congress on policies on lithium battery packaging requirements.	6/2/19	Report drafted, DOT saying it ''captures many completed and ongoing activities consistent with Congressional direction''. FAA hopes to give the report to Congress soon.
339A	In-Flight Sexual Misconduct Task Force.	Establish National In-Flight Sexual Misconduct Task Force and submit report.	10/5/19	Task Force established by DOT 02/2019, + subcommittee of the Department's Aviation Consumer Protection Advisory Committee (ACPAC) follow requirements of Section 339A. Task Force has met in April, May, June and July 2019. Additional two-day meeting scheduled in 09/2019. Task Force expected to conclude its work by the end of 2019. DOT awaiting Task Force recommendations before determining action(s) needed.
339B	Reporting process for sexual misconduct onboard aircraft.	In coordination w/ relevant agencies, AG to establish process based on 339A report.	10/5/20	Awaiting establishment. DOJ function, not a DOT function.
		Unmanned Aircraft		
342	Update of FAA comprehensive plan.	FAA to update UAS plan required by the 2012 reauthorization.	7/2/19	The FAA is working on this update. Per the requirement in the section, the draft plan will be provided to the Drone Advisory Committee (DAC) and the FAA will task the DAC to provide feedback within 60 days.
348	Carriage of property by small UAS for compensation or hire.	FAA to update regulations to authorize carriage of property by users of small UAS for compensation or hire.	10/5/19	FAA is meeting the intent through the issuance of part 135 exemptions.
352	Part 107 transparency and technology improvements.	FAA to revise online waiver and COA process.	11/4/18 & 1/3/19	FAA posted a sample of waiver safety justifications online and allows waiver applicants to see status of their waiver request through FAA's DroneZone platform.

Section	Title	Description	Statutory Deadline	Status
376	Plan for full operational capability of unmanned aircraft systems traffic management (UTM).	FAA to develop a plan for UTM implementation in coordination with NASA & stakeholders, report to Congress.	4/11/20	The FAA, in partnership with 3 UAS test sites and other stakeholders, completed 3 successful test flights this summer under phase 1 of the UTM Pilot Program. FAA continues to study initial results as the agency moves into phase 2, informing future test scenarios and protocols in partnership with NASA. The FAA will define regulatory framework in which providers can operate.
		Aviation Consumer Protections		
418	Advisory committee on air ambulance and patient billing.	DOT to create advisory committee to review options to improve pertinent medical services.	12/4/18	Committee established 09/12/2019 with appointment of 13 members. First committee meeting expected ''in the near future and will be open to the public''.
424	Aviation consumer advocate ..	Directs DOT to appoint an aviation consumer advocate and to prepare an annual report to Congress summarizing annual complaints by carrier.	9/30/19	Blane Workie, Assistant General Counsel for DOT Office of Aviation Enforcement and Proceedings, appointed Aviation Consumer Advocate 03/2019. Report will be drafted.
425	TICKETS Act	Prohibits airlines from removing a passenger from a flight after the passenger's boarding pass has been scanned, unless safety or security reasons dictate otherwise..	12/4/18	DOT has initiated a rulemaking (2105–AE77) to codify the Tickets Act requirement.
433	Improving wheelchair assistance.	DOT to establish recommendations re wheelchair assistance, if appropriate, following report required in 2016 extension.	No timeline specified	Awaiting report from 2016 extension. DOT anticipates it being reviewed by Air Carrier Access Act Advisory Committee once established.
434	Passengers with Disabilities Bill of Rights.	DOT to establish a ''Bill of Rights'' for passengers with disabilities.	No timeline specified	DOT anticipates this topic being addressed by the Air Carrier Access Act Advisory Committee once established.
439	Advisory committee on the air travel needs of passengers with disabilities.	DOT to establish committee on the air travel needs of passengers with disabilities, incl. recommendations, called the Air Carrier Access Act Advisory Committee (ACAA Advisory Committee).	Report to DOT due 14 months after establishment; DOT report to Congress due 60 days from receipt	DOT began reviewing committee applicants 5/28/19. It has finished its review and expects to announce the formation of the committee soon.
440	Regulations Ensuring Assistance for Passengers with Disabilities in Air Transportation.	Requires a review and change to regulations governing accommodations for person with disabilities, if necessary.	4/3/19	DOT has reviewed the Department's Air Carrier Access Act regulations, and reviewed complaints received. DOT will determine whether regulations are necessary.

Section	Title	Description	Statutory Deadline	Status
441	Compliance Date of Mishandled Baggage Rules.	The compliance date of the November 2, 2016, final rule on mishandled baggage reporting shall be effective not later than 60 days after enactment of act.	12/4/18	On 10/28/2018, DOT issued notice providing guidance to affected U.S. carriers on compliance with mishandled baggage and wheelchair reporting requirements.
551	Employee Assault Prevention and Response Plans.	Directs part 121 air carriers to submit to the FAA for review and acceptance an employee assault prevention and response plan.	1/3/19	In July 2019, the FAA published an Information to Operators (InFO) advising part 121 air carriers of the process for submission of the plans.
		Aviation Workforce Development		
602	Establish a Task Force on Youth Access to American Jobs in Aviation.	FAA to establish task force to study increased youth access to aviation jobs.	1/3/19	The FAA is finalizing the necessary charter and associated Federal Register notice.
612	Establish a Women in Aviation Advisory Board.	FAA to create and facilitate the board to increase access to women in aviation.	7/5/19	The FAA is finalizing the necessary charter and associated Federal Register notice.
625	Aviation workforce development programs.	DOT to establish programs to provide grants for eligible projects to support the education of future pilots and maintenance personnel.	None	Implementation being reviewed, not expected before 2021, per FAA.

A WORK IN PROGRESS: IMPLEMENTATION OF THE FAA REAUTHORIZATION ACT OF 2018

THURSDAY, SEPTEMBER 26, 2019

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

The subcommittee met, pursuant to notice, at 10:02 a.m. in room 2167, Rayburn House Office Building, Hon. Rick Larsen (Chairman of the subcommittee) presiding.

Mr. LARSEN. Good morning, and I want to thank the witnesses for joining today's hearing on the implementation of the FAA Reauthorization Act of 2018.

One year ago, this committee wrote comprehensive bipartisan legislation to raise the bar on aviation safety, improve the flying experience for the traveling public, better prepare and diversify the aviation workforce, and foster innovation in the U.S. airspace.

Today's hearing is a critical milestone in the subcommittee's oversight work to ensure the timely implementation of the law in accordance with our intent, and to address new challenges. Although the FAA has made some progress on fulfilling the law's directives, ongoing implementation delays threaten the important work needed to advance U.S. aviation and aerospace, and maintain our global leadership.

Our first panel of witnesses are Dan Elwell, the FAA's Deputy Administrator, and Joel Szabat, Acting Under Secretary for Policy at the Department of Transportation.

Mr. Elwell and Mr. Szabat, I do expect your testimony will offer substantive updates on the administration's efforts to swiftly implement last year's law.

I would note they are joined by staff from FAA and DOT, and the staff will be available to help us answer any of our questions, as well.

Witnesses on today's second panel reflect a broad range of aviation stakeholders who are uniquely positioned to comment on what is working, what is not, and what Congress can do to keep the FAA and DOT on track.

I expect we will cover a lot of ground today, so let me walk briefly through a few of my priorities.

Safety is the subcommittee's top priority. The FAA's current aerospace forecast predicts passenger traffic will increase roughly 2 percent per year over the next 20 years. Congress must ensure appropriate safety rules are in place to safely accommodate this demand.

Notably, the lack of modern rest requirements for flight attendants remains a critical aviation safety issue. The current regulation, issued in 1994, allows airlines to roster flight attendants for just 8 hours of rest. Instead of modifying the 1994 rule and flight attendant rest to provide at least 10 hours of rest by November 4th of last year, as directed in the bill, the FAA just this week issued an advanced notice of proposed rulemaking, ANPRM, soliciting comments on the cost and benefits of compliance with the mandate. I am concerned that this action is yet another unnecessary delay.

So, Mr. Elwell, I will expect you to shed some more light on the FAA's decisionmaking related to this issue.

Further, I look forward to hearing more about the necessity of the ANPRM, particularly as some 15 airlines have already implemented the mandate, or are currently working towards compliance.

The bill also requires the FAA to issue guidance to aircrews and mechanics on responding to incidents involving smoke or fumes in cabins, as well as a commission to study in-cabin air quality. These directives are overdue, so I hope you can provide an update on how the FAA plans to fulfill these mandates.

Congress, as well, must assure the FAA efficiently integrates unmanned aircraft systems, or UAS, into the National Airspace System. But Congress must also ensure that integration is safe. This committee made the necessary reforms in last year's bill to ensure the agency could move forward on a remote identification rule. Although rulemaking was initiated more than 1 year ago, the publication date has been repeatedly delayed.

In July I joined Chair DeFazio and Ranking Member Sam Graves and Garret Graves on a letter to the FAA and the Office of Management and Budget raising questions about the delays in issuing the remote ID rule. But our questions remain unanswered.

So, Deputy Administrator Elwell and Mr. Szabat, I expect you will provide us with those answers today.

Further, according to recent reports, the FAA, in partnership with three UAS sites, has successfully completed test flights under phase 1 of the UAS Traffic Management Pilot Program, and we look forward to hearing more about the lessons learned from that program to date.

As the committee continues to support advances in U.S. aviation, the success of those efforts is possible with the investment in the next generation of engineers, pilots, mechanics, and innovators. The FAA Reauthorization Act includes a comprehensive workforce development title, including my provision to create a new task force to encourage high school students to enroll in aviation manufacturing, maintenance, and engineering apprenticeships.

With global aviation becoming more competitive, I am concerned by the FAA's lack of progress on this mandate, as well as continued delays to establish a Women in Aviation Advisory Board to encourage women and young girls to pursue aviation careers. Improving access to workforce training and diversifying the aviation workforce is an all-around win for employers, job seekers, and the aviation and aerospace sectors.

And the FAA Reauthorization Act includes numerous provisions to improve the air travel experience for more than the 900 million passengers who fly in the U.S. each year.

For years I have championed the effort to improve accessibility of air travel for passengers with disabilities, and I am pleased to see the Reauthorization Act included a robust title focused on improving the curb to curb experience for these passengers. However, the Department's commitment to these goals has rightly been called into question as significant delays on rulemaking for several of these key mandates persist.

Moreover, the public is still waiting for final action on rulemaking to ensure passengers with disabilities can access lavatories on single-aisle airplanes, an action that I asked be required in the 2016 FAA extension. Additionally, last year's act improved safety for the traveling public and airline employees by addressing sexual harassment and assault through open reporting and increased accountability.

There is no doubt the FAA and DOT and this committee have our work cut out for us. Timely implementation of the long-term Reauthorization Act will provide stability for the Nation's aviation community, support the advancement of new technologies, improve American competitiveness, and, above all, ensure aviation safety.

So I want to thank again the witnesses for being here today. I look forward to the discussion.

[Mr. Larsen's prepared statement follows:]

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

Good morning and thank you to the witnesses for joining today's hearing on the implementation of the FAA Reauthorization Act of 2018.

One year ago, this Committee wrote comprehensive, bipartisan legislation to:

- Raise the bar on aviation safety;
- Improve the flying experience for the traveling public;
- Better prepare and diversify the aviation workforce; and
- Foster innovation in U.S. airspace.

Today's hearing is a critical milestone in the Subcommittee's oversight work to ensure the timely implementation of the law, in accordance with our intent, and to address new challenges.

Although the Federal Aviation Administration (FAA) has made some progress on fulfilling the law's directives, ongoing implementation delays threaten the important work needed to advance U.S. aviation and aerospace and maintain our global leadership.

On our first panel of witnesses are Dan Elwell, the FAA's Deputy Administrator, and Joel Szabat, Acting Undersecretary for Policy at the Department of Transportation (DOT). Mr. Elwell, Mr. Szabat, I expect your testimony will offer substantive updates on the administration's efforts to swiftly implement last year's law.

Witnesses on today's second panel reflect a broad range of aviation stakeholders who are uniquely positioned to comment on what is working, what is not and what Congress can do to keep the FAA and DOT on track.

I expect we will cover a lot of ground, so let me walk briefly through a few of my priorities.

Safety is this Subcommittee's top priority.

The FAA's current aerospace forecast predicts passenger traffic will increase roughly 2 percent per year over the next 20 years.

Congress must ensure appropriate safety rules are in place to safely accommodate this demand. Notably, the lack of modern rest requirements for flight attendants remains a critical aviation safety issue.

The current regulation, issued in 1994, allows airlines to roster flight attendants for just eight hours of rest. Instead of modifying the 1994 final rule on flight attendant rest to provide at least 10 hours of rest by November 4 of last year, as directed in the bill, the FAA just this week issued an advance notice of proposed rulemaking

(ANPRM) soliciting comments on the costs and benefits of compliance with the mandate. I am concerned this action is yet another unnecessary delay.

Deputy Administrator, I expect you can shed more light on the FAA's decision-making related to this issue.

Further, I look forward to hearing more about the necessity of the ANPRM, particularly as some 15 airlines have already implemented the mandate or are currently working toward compliance.

The bill also requires the FAA to issue guidance to aircrews and mechanics on responding to incidents involving smoke or fumes in cabins, as well as commission a study on cabin air quality. These directives are overdue, so I hope you can provide an update on how the FAA plans to fulfill these mandates.

Congress must ensure that the FAA efficiently integrates unmanned aircraft systems (UAS), which are rapidly emerging, into the national airspace system. But Congress must also ensure that integration is safe.

This Committee made the necessary reforms in last year's bill to ensure the agency could move forward on a remote identification rule. Although rulemaking was initiated more than one year ago, the publication date has been repeatedly delayed.

In July, I joined Chair DeFazio and Ranking Members Sam Graves and Garret Graves on a letter to the FAA and Office of Management and Budget raising questions about the delays in issuing the remote ID rule. But our questions remain unanswered.

Deputy Administrator Elwell and Mr. Szabat, I expect you will provide us with those answers today.

Further, according to recent reports, the FAA, in partnership with three UAS test sites, has successfully completed test flights under phase 1 of the UAS traffic management (UTM) Pilot Program.

I look forward to hearing more about the lessons learned from this program to date and the potential impacts on the UAS industry.

As this Committee continues to support technological advances in U.S. aviation, the success of these efforts is possible with investment in the next generation of engineers, pilots, mechanics and innovators.

The FAA Reauthorization Act includes a comprehensive workforce development title, including my provision to create a new task force to encourage high school students to enroll in aviation manufacturing, maintenance and engineering apprenticeships.

With global aviation becoming more competitive, I am concerned by the FAA's lack of progress on this mandate, as well as continued delays to establish a Women in Aviation Advisory Board to encourage women and girls to pursue aviation careers.

Improving access to workforce training and diversifying the aviation workforce is an all-around win for employers, job seekers and the aviation and aerospace sectors.

The FAA Reauthorization Act includes numerous provisions to improve the air travel experience for the more than 900 million passengers who fly in the United States each year.

For years, I have championed efforts to improve accessibility of air travel for passengers with disabilities.

I was pleased to see the reauthorization act included a robust title focused on improving the "curb to curb" experience for these passengers.

However, the Department's commitment to these goals has been rightly called into question, as significant delays on rulemaking for several of these key mandates persist.

Moreover, the public is still waiting for final action on a rulemaking to ensure passengers with disabilities can access lavatories on single-aisle airplanes—action that I required in the 2016 FAA extension.

Additionally, last year's act improves safety for the traveling public and airline employees by addressing sexual harassment and assault through open reporting and increased accountability.

There is no doubt that the FAA, DOT and this Committee have our work cut out for us.

Timely implementation of the long-term reauthorization act will provide stability for the nation's aviation community, support the advancement of new technologies, improve American competitiveness, and above all, ensure aviation safety.

Thank you again to today's witnesses, and I look forward to our discussion.

Mr. LARSEN. And for an opening statement I turn to Ranking Member Garret Graves.

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman, and thank you for holding this hearing. I want to thank all the witnesses for being here today.

Often we pass laws and move on. We send out press releases, we have signing ceremonies, and we move on. This bill was signed into law about a year ago, almost a year ago. It includes over 400 pages of text. As Under Secretary Szabat includes in his testimony, it includes nearly 360 deliverables to the Congress, to this committee, 360. There is an awful lot of work that went into this legislation, and we need to make sure that the outcomes actually yield or represent that congressional intent.

The process of signing a bill into law is just the beginning. The reality is that implementation is everything, as is the case in many circumstances. This bill lays out or addresses policy debates in many longstanding areas where there has been dispute, or been differences, or a lack of a decision. It truly lays the groundwork for the future of aviation and the future of aviation infrastructure.

This legislation makes a lot of progress in terms of addressing the future of aviation safety, how that applies not just to the aircraft, but also to the information systems and the on-the-ground networks, as well.

This bill was a bipartisan bill, with strong, strong support from Republicans and Democrats, a strong vote in the House of Representatives moving forward. But I want to say it again. All of this is for naught if the FAA doesn't do what we directed them to do in the first place.

Mr. Chairman, I am glad we are holding this hearing today. I think that we need to ensure that we stay on top of this, and stay on top of implementation, and carry out our oversight responsibilities properly. I understand what has been accomplished and what still needs to be done. It is important we look to the future and decide what we are going to do next, and we fully understand the implementation of this legislation. I want to thank the witnesses in both panels for being here today and for your input. I am interested in hearing how the FAA has implemented provisions related to the new entrants and new technologies such as unmanned aircraft systems. I also want to learn the status of numerous safety process streamlining and consumer protection efforts.

Thank you again, Mr. Chairman, for holding today's hearing, and I yield back the balance of my time.

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

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

So often in Congress, we focus solely on either the problems of the day or what we're going to do next and we forget to look back.

We can't pass laws and move on. Signing a law is just the beginning—the process of changing things in the real world is just beginning, and implementation is everything. Part of our job is to make sure that the laws we've already passed are being implemented as intended before adding new laws and new work. At more than 400 pages and almost 360 deliverables, the FAA Reauthorization Act of 2018 certainly gave the FAA and DOT more than enough work.

In this comprehensive law, which was developed and passed with strong bipartisan support, Congress addressed many longstanding policy debates while laying

the groundwork for our aviation system's future. We included provisions that will improve aviation safety and help build the next generation of aviation infrastructure. And we require various reports and studies to inform legislative and regulatory efforts in the future.

But Mr. Chairman, all those provisions, all the good bipartisan work we accomplished, and even all the reports that will inform our future efforts, all of it is for naught if the FAA doesn't do what we directed them to do in the first place.

So Mr. Chairman, I'm glad we're finally holding a hearing to ensure that the FAA Reauthorization is being properly implemented. Understanding what has been accomplished and what work remains to be done will be important as we look to the future and decide what we're going to do next.

I thank the witnesses on both panels for their participation today. I am interested in hearing how the FAA has implemented provisions related to new entrants and new technologies, such as unmanned aircraft systems. I also want to learn the status of the numerous safety, process streamlining, and consumer protection efforts.

Mr. LARSEN. Thank you, Mr. Graves. I turn to the chair of the full committee, Mr. DeFazio of Oregon for 5 minutes.

Mr. DEFAZIO. Thanks, Mr. Chairman. Welcome to the witnesses here today.

We did send a lot of mandates. The chair listed a number. I share his concerns over those, and I will list a few others that are at the top of my list. I understand it was a big workload, but if you prioritize and address the principal concerns, particularly those that relate to safety, that will be good progress.

So flight attendant fatigue. Twenty-five years. The FAA has recognized that fatigue is a real issue, and that when you are dealing with safety-critical personnel—pilots, we have adopted rules. When it comes to flight attendants, safety-critical personnel, we haven't.

The rules allow an airline to keep a flight attendant on duty for 14 hours. Then you get an 8-hour break. Now, that is 8 hours to get off the plane, get out of the airport, get on the shuttle, go to the hotel, maybe make a phone call, take a shower, go to bed, get up, and be back within 8 hours. Now, I don't know. Maybe you get 3, 4 hours of sleep, if you are lucky.

So, it is well past time. And I thought we were very, very definitive and clear, and it would not be necessary to go through a lengthy rulemaking. And I am hoping that we can expedite that in the near future.

And then we have the issue of cabin evacuations. When I first came to Congress, I was aware of the Manchester crash, where people died piled up like cordwood, trying to get out the overwing exit. It was a survivable crash. It took me 5 years in Congress to get a rule that said we would take out and make space to get at the overwing exits. Two years later, the industry came back with a fake study saying, oh, no, that actually delays evacuations if you take those seats out. Well, we pushed back on that, and they didn't put them back in. But now they are cramming in more, and more, and more seats, closer and closer together. People are getting bigger.

And we haven't done a real safety evacuation drill in, I think, 20 years or 25 years. We are using computer simulations. I don't believe we can beat the standard anymore of 90 seconds, which has been deemed to be critical. Now, if the FAA thinks you could have 5 minutes in a survivable crash and a fire, well, then, tell us that. But if you don't think that, then we have to find out whether or not the current rules accommodate a 90-second evacuation.

We have a real-life example, which was the American Airlines flight in Chicago, which was a widebody. So it wasn't one of the new, really crammed-in planes. And it took them well over 2 minutes and 21 seconds to evacuate the plane, and the plane wasn't even full. So telling me that these new economy carriers that have crammed people in so they are sitting like this [indicating]—I want to get the CEOs here someday, and I am going to get some of those seats, and I am going to put them in, and we are going to keep them here for 4 or 5 hours, and see what they think about what they are doing to——

Mr. LARSEN. I won't be chairing that meeting.

[Laughter.]

Mr. DEFAZIO. Secondary cockpit barriers. Bill Lipinski, not Dan, and I were on this issue before 9/11, the vulnerability of the flight decks. And United actually installed a few barriers in 757s, and I was down there visiting their maintenance facility in San Francisco once, and I said, "What of that? What is—what do you call that?"

And they said, "Oh, we call those DeFazios, because you are bugging us so much." But they didn't equip all the planes, and we had a preventable tragedy, had we been able to prohibit access.

Yes, we have armed the doors, and now we have flight attendants menacingly behind a cart. And it wouldn't be very hard for a person with strength and skill to vault over that cart, knock the flight attendant down, take out the pilot, and get to the flight deck. That was really, really, really clear.

Now the industry is very opposed. It is going to put a little more weight on the plane. And the manufacturers and the former chairman tried to say, no, no, we didn't mean what the law said. We meant new types. No, the law is clear. All newly manufactured airplanes will have these barriers.

And again, you know, this is being slow-walked. I see that there—you know, asked for another delay, and they are not releasing the recommendations. We have got to get that out.

Drones took—it took me about 5 years to roll the very, very powerful model airplane lobby and the Chinese toy manufacturers to require that we could have remote ID. They prohibited the FAA from regulating these things. Sooner or later we are going to ingest a drone. What is going to happen? Well, we don't know. In fact, I asked the FAA 3 years ago, "What happens if one of those crappy little quadcopters goes into a turbine?"

And they said, "Well, we don't know."

And I said, "Well, maybe you should find out." We still haven't had the live test. I don't know what the delay is.

This is very serious. The commercial drone people are all with me on this, because if we have one accident because of some jerk illegally flying a toy drone, they are all going to get grounded, and it is going to be quite a mess. So we really, really need that rule.

And now I think we are not even going to see a proposed rule until December. You know—I don't know. Is it the model aircraft people? Is it the Chinese? Who is holding this up?

And then, finally, foreign repair stations. We just had an incident last week of what appears to be a terrorist action on domestic soil by a domestic employee. I have for years—again, with Bill Lipinski,

that is how long it has been—expressed concerns, and with Jerry Costello, about foreign repair stations. And we did some visits.

And, you know, we can't do unannounced visits, because the State Department says, "Oh, well, then they could do unannounced visits here." Who cares? We don't have anything to hide, I hope. They don't do drug testing, as we require by law. They don't do alcohol, drug, and they don't do background checks.

And now we are doing massive, massive amounts of maintenance overseas. This is an incredible vulnerability, just like this guy tried to sabotage the plane there. What about someone doing a D check down in one of these foreign repair stations? That is a way to take down a plane without having to get on board, and without having to access the flight deck.

So these are safety-critical, potentially life-threatening rules that we need, and we need them as quickly as possible.

[Mr. DeFazio's prepared statement follows:]

Prepared Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chairman, Committee on Transportation and Infrastructure

Thank you, Chair Larsen, for calling today's hearing on implementation of the FAA Reauthorization Act of 2018—a bipartisan bill that, barring another senseless government shutdown, will keep the lights on at the Federal Aviation Administration (FAA) for the next four years.

By my count, the bill contains more than 400 mandates for FAA and Department of Transportation (DOT) rulemakings, studies, and reports to Congress—many with the same deadline of either six months or a year from enactment. I'm a realist. I recognize it will take time for the FAA and the DOT to work through the list. But I want to highlight a few mandates whose implementation is either late or about to be late—and I want to put this administration on notice that I will be monitoring progress on these mandates very, very closely.

First and foremost is the issue of flight attendant fatigue. Much has happened in aviation safety over the last 25 years. We've seen new pilot fatigue rules, new pilot training rules, new pilot qualifications rules, reduced vertical separation between airplanes, and the list goes on.

But here's what we haven't seen from the FAA in the last 25 years: updated rules recognizing that cabin crewmembers do not get adequate rest between flights under the FAA's 1994 requirement on cabin crew rest.

Those rules allow an airline to keep a flight attendant on duty for 14 hours and then provide only an eight-hour break between flights. That's not eight hours of rest; that eight hours includes walking through the terminal, finding the stop for the shuttle bus to the hotel and waiting for it to arrive, riding the shuttle bus to the hotel, checking into a hotel room, maybe calling home, and then it's lights out for a few hours until the next 14-hour clock starts at the airport just five or six hours later.

The FAA itself has acknowledged the effects of fatigue on the human body. The agency's rulemaking proposal for improved pilot fatigue rules in 2010 cited the following effects, among others:

- Lapses of attention and vigilance;
- Delayed reactions;
- Impaired decision-making, including a reduced ability to assess risk; and
- Reduced situational awareness.

We've seen accident after accident in the United States where flight attendants' quick action saved lives. To name but a few: American Airlines flight 1420, which overran the runway in Little Rock in 1999; US Airways flight 1549, which ditched into the Hudson River in 2009; and Asiana flight 214, which crash-landed in San Francisco in 2013. When a situation unravels from routine to total chaos, that's when the flying public expects cabin crews to be rested and ready to spring into action.

The bill set a deadline of November 4 of last year for the Secretary of Transportation to issue a final rule guaranteeing flight attendants a minimum of 10 hours'

rest, no exceptions. Yet all we've seen so far is an advance notice of proposed rulemaking, soliciting information from airlines and others on the costs of complying with that mandate—even as some 15 airlines have adopted some version of a 10-hour rest rule voluntarily. I consider the administration to be woefully delinquent in fulfilling this important mandate.

Second is a related issue: cabin evacuations. In 1985, before I was elected to Congress, 55 people died during the botched evacuation of British Airtours flight 28M in Manchester. After I was elected, I persisted in response to that tragedy until the FAA finally adopted spacing requirements for exit-row seats in 1992.

But evacuations continue to be a problem. After a Boeing 767 became engulfed in flames following an uncontained engine failure during its takeoff roll in Chicago in 2016, the scene in the cabin was a complete melee as passengers tried to evacuate the burning plane dragging huge carry-on bags with them. To quote from the National Transportation Safety Board's report:

> In one case, a flight attendant tried to take a bag away from a passenger who did not follow the instruction to evacuate without baggage, but the flight attendant realized that the struggle over the bag was prolonging the evacuation and allowed the passenger to take the bag.

The FAA says it should take 90 seconds to evacuate a burning plane. It took 161 passengers and eight crew two minutes and 21 seconds to evacuate the 767 at O'Hare. So that to me begs the question: Are the FAA's assumptions valid about how long it takes for cabin evacuations?

At my insistence, the bill requires the FAA Administrator to reassess the assumptions and methods behind certification of evacuation times and report to Congress on the matter. The deadline is coming up on October 5.

At a time when airlines are cramming more and more seats to reduce their costs per available seat-mile, the bill also requires the FAA to issue regulations on minimum dimensions of seats on airliners. Again, the final rule is due next week, on October 5, and I look forward to hearing from Deputy Administrator Elwell on the FAA's progress in meeting this important safety-critical mandate.

Third is the requirement for installation of secondary cockpit barriers on transport-category airplanes. After 9/11, cockpit doors were reinforced, but pilots still need to leave the cockpit from time to time during flight. Although United installed what I understand were called "DeFazio barriers" on some of its 757s in recognition of my advocacy on this subject, in most cases the only protection for the flight deck during the moments when the cockpit door is open during flight is a flight attendant or beverage cart stationed in front of the entryway.

Thank God no terrorist has exploited this vulnerability since 9/11, but it's long past time to close the loophole, so the bill requires the FAA—again, by October 5—to require installation of secondary cockpit barriers on all newly manufactured airliners. Inasmuch as the working group tasked with developing this requirement has asked for an extension of the September 19 deadline for submitting its recommendations, I'm pessimistic that the FAA will meet the deadline, and I'll be keen to hear from Deputy Administrator Elwell as to when we'll see some further action on this mandate.

Fourth is a provision I authored that removed a foolish ban on FAA regulation of recreational drones, which account for more than one million of the drones in U.S. airspace today. For more than six years, that ban prevented the FAA from addressing the serious safety and security risks drones pose, many of which can be alleviated through basic remote identification (ID) requirements for operators. These risks have held back the U.S. commercial drone industry, as additional FAA rules permitting expanded commercial drone operations, such as routine operations over people and at night, have been at a standstill.

I was under the impression that my provision would provide the FAA with the authority and tools needed to move forward with its remote ID rulemaking, which the industry at large agrees is the foundation necessary for the full and safe integration of drones. I was disappointed to learn that the agency's efforts are again delayed—the third time this year—with the rule now expected in December. The FAA and its security partners must commit to issuing this rule as expeditiously as possible, and I look forward to hearing from the Deputy Administrator about efforts underway to ensure this happens.

Fifth is the safety and security of foreign aircraft repair stations. While not addressed in last year's legislation, the 2016 FAA extension required the FAA to issue rules requiring that safety-sensitive workers at foreign repair stations be subject to alcohol and substance abuse screening and background investigations, just as workers at U.S. facilities are, and the 2012 reauthorization similarly required a rule-

making on substance abuse screening. However, to date, the FAA has failed to implement these important mandates.

I have been concerned for years over the FAA's lax oversight of these facilities. Report after report by successive DOT Inspectors General has revealed troubling deficiencies in FAA oversight of foreign repair stations that perform more and more critical safety work on U.S.-registered aircraft. In fact, representatives of one airline told the Government Accountability Office in 2016, in a study at my request, that the airline uses 100 foreign repair stations. I intend to do whatever is necessary in Congress to ensure parity between U.S. and foreign repair stations.

While I've highlighted just a few provisions in my remarks, by no means do I want to imply that there aren't dozens of other important provisions in the FAA bill in the areas of safety, consumer protections, accessibility for disabled passengers, and workforce development. For every requirement in the bill, this Subcommittee will remain focused on ensuring that Congress' will is respected, however long it takes.

Thank you, Chair Larsen, and I yield back.

Mr. DEFAZIO. Thank you, Mr. Chairman.

Mr. LARSEN. Thank you. I now turn to Ranking Member Graves for 5 minutes for his opening——

Mr. GRAVES OF MISSOURI. Thanks, Chairman Larsen and Ranking Member Graves, for having this hearing. I am very glad that the subcommittee is focusing on implementation of FAA reauthorization for 2018, very glad about that.

This act is the longest reauthorization in more than two decades, and its passage last October was very bipartisan, and it was widely praised.

But, among other things, FAA reauthorization, it gives the FAA and industry much-needed stability. It provides steady funding for airport and infrastructure across the country, and it allows manufacturers to get products to market on time, stay competitive, and provide millions of good-paying American jobs.

And it also streamlines the regulatory process to encourage innovation in new technologies. And I am particularly proud in the reauthorization of the provisions that address issues important to the general aviation community, such as supporting small and rural airports through the new supplemental grant program; increase in aircraft registration times from 3 years to 7 years; commonsense changes in FAA hangar use; and policy related to the construction of an aircraft; tackling important general aviation safety issues, such as marking towers; ending FAA fees for large aviation events such as AirVenture in Oshkosh, Wisconsin, and Sun 'n Fun in Lakeland, Florida; a clarified FAA policy relating to nonprofits when it comes to accepting donations for living history flight experiences. It promoted the streamlining and evaluation of regulations related to certificates for pilots of experimental aircraft, including the restoration of the "all makes and models" Certificate, and supported programs to develop the aviation workforce of the future. This is just to name a few.

It is vitally important that the workforce grant program, training requirements, and studies directed by the law—it is very important that they are implemented in a timely manner.

During the next 7 days the general assembly of the International Civil Aviation Organization, ICAO, is going to meet in Montreal. And I am pleased that FAA leadership is going to be there with other regulators to discuss international standards. And I am also pleased that one of those items to be discussed is international

pilot training standards. And I understand the United States is going to present a white paper on automation and dependency in the cockpit.

I have said this before, and I am going to say it again, because I don't think it can be repeated enough, that the pilot is the most important safety feature in any cockpit. And his or her ability to fly the plane when technology fails is absolutely critical to safety.

The growth of the commercial aviation industry around the world is so important to our global economy, and it has numerous benefits. But that growth and rapid expansion, especially in developing nations, cannot come at the expense of safety and good training.

I look forward to hearing from today's witnesses. I wish—and this isn't a criticism, Mr. Chairman, but I wish that we could hear from other segments of the aviation community, such as general aviation, the airlines, manufacturers, airports, safety inspectors, air traffic controllers, on the GA community. So I hope today's hearing is just the first in a series on the implementation of the reauthorization law.

And again, I want to thank our witnesses for being here today. And I would yield back the balance of my time. Thank you.

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

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

I am glad the Subcommittee is focusing on implementation of the FAA Reauthorization Act of 2018. This is the longest reauthorization of the FAA in more than two decades, and its passage last October was overwhelmingly bipartisan and widely praised.

Among other things, the FAA Reauthorization Act of 2018 gives the FAA and industry much needed stability; provides steady funding for airport infrastructure across the country; allows manufacturers to get products to market on time, stay competitive, and provide millions of good-paying American jobs; and streamlines regulatory processes to encourage innovation in new technologies.

I am particularly proud of provisions in the Reauthorization that address issues important to the general aviation community, such as supporting small and rural airports through a new supplemental grant program; increasing aircraft registration renewal times from three years to seven years; commonsense changes to FAA hangar use policy related to construction of aircraft; tackling important general aviation safety issues, such as marking towers; ending FAA fees for large aviation events such as Oshkosh and Sun 'n Fun; clarifying FAA policy related to non-profits accepting donations for living history flight experiences; promoting the streamlining and evaluation of regulations related to certificates for pilots of experimental aircraft including the restoration of an 'all makes and models' certificate; and supporting programs to develop the aviation workforce of the future.

It is vitally important that the workforce grant programs, training requirements, and studies directed by the law be implemented in a timely manner.

This is particularly true in the aftermath of the tragic Boeing MAX accidents in Indonesia and Ethiopia.

There are numerous reviews and investigations underway and we are awaiting the much anticipated recommendations. Experts are considering many factors for each accident, including aircraft certification and design, airline operations and maintenance, and pilot training and experience.

During the next seven days, the General Assembly of the International Civil Aviation Organization (ICAO) is meeting in Montreal. I am pleased that FAA leadership is there to meet with other regulators to discuss the MAX. I am also pleased that one of the items to be discussed is international pilot training standards.

I understand that the United States will present a white paper on automation dependency in the cockpit.

I have said it before, but I can't repeat it enough—the pilot is the most important safety feature in the cockpit and his or her ability to manually fly the plane when technology fails is critical to safety.

The growth of the commercial aviation industry around the world is so important to our global economy and has numerous benefits. But that growth and rapid expansion, especially in developing nations, cannot come at the expense of safety and good training.

I look forward to hearing from today's witnesses, but it is unfortunate that we will not hear from other segments of the aviation community, such as airlines, manufacturers, airports, safety inspectors, and air traffic controllers. So, I hope today's hearing is just the first in a series of hearings on the law.

Mr. LARSEN. Thank you, Mr. Graves, and so noted on your request.

I want to welcome the witnesses to our first panel: Mr. Dan Elwell, Deputy Administrator of the FAA, and the Honorable Joel Szabat, Acting Under Secretary of Policy at the U.S. DOT.

Thanks for being here today. We all look forward to your testimony.

Without objection, our witnesses' full statements will be included in the record. And since that is the case, the subcommittee requests that you limit your oral testimony to 5 minutes.

Mr. Elwell, you are recognized.

TESTIMONY OF DANIEL K. ELWELL, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, ACCOMPANIED BY LIRIO LIU, ACTING DEPUTY ASSOCIATE ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION; AND HON. JOEL SZABAT, ACTING UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY BLANE WORKIE, ASSISTANT GENERAL COUNSEL, OFFICE OF THE SECRETARY OF TRANSPORTATION

Mr. ELWELL. Thank you, Chairman Larsen, Chairman DeFazio, Ranking Member——

Mr. LARSEN. Get close and speak up.

Mr. ELWELL. Thank you, Chairman Larsen, Chairman DeFazio, Ranking Member Graves, and Ranking Member Graves, and members of the committee. Thank you for the opportunity to appear before you today to discuss the FAA's ongoing work to implement the provisions of the FAA Reauthorization Act of 2018.

Before I begin, I would like to recognize our guests today, the family and friends of those who passed in the accidents in Indonesia and Ethiopia. It is in honor of their loved ones that we stay so intensely committed to improving safety.

Although the act authorized aviation programs for 5 years, the vast majority of the specific mandates require FAA action within the first year. We remain committed to completing the work you have given us, and I am pleased to report we have made substantial progress on fulfilling the mandates. I will discuss accomplishments in several key areas, including aircraft certification, aviation safety, unmanned aircraft systems, and commercial space.

The FAA's approach to aircraft certification has evolved over time in order to adapt to an ever-changing industry, with safety always paramount. Continuous improvement is an integral component of the FAA safety culture, and we are committed to learning

from our experiences and using what we have learned to improve our process.

The 2018 act furthers this work. As required in the reauthorization, Secretary Chao this summer established a 22-member Safety Oversight and Certification Advisory Committee to advise the Department on policy-level topics related to certification, including Organization Designation Authority, or ODA.

The reauthorization also required the FAA to establish an ODA Office within the Aviation Safety Organization to ensure consistency in ODA oversight functions throughout the agency. We formally established the ODA Office in March.

The 2018 act requires the FAA to initiate 33 separate rulemakings in addition to creating new aviation rulemaking committees, and expanding the work of the existing Aviation Rulemaking Advisory Committee, ARAC, to consider new objectives.

We have made significant progress on key rulemakings on flight attendant duty and rest periods. As the chairman mentioned, we published an advance notice of proposed rulemaking yesterday that asks respondents for data to assist us in developing the proposed rule.

In a related requirement, in June we published advisory information to airlines for developing flight attendant fatigue risk management plans. Currently, we are receiving and reviewing these plans from airlines.

In June we also directed the ARAC to evaluate a reauthorization requirement for airlines to install secondary cockpit barriers in new passenger aircraft. The FAA is committed to implementing Congress' mandate for this safety and security enhancement, and we are working with the ARAC to ensure it is done correctly.

The FAA is also making good progress on several airport-related requirements, ranging from contract towers and environmental concerns with firefighting agents to streamlining the passenger facility charge program. We are acutely aware of the need to continue balancing the interests of airports, airlines, and other aeronautical users, neighboring communities, and the traveling public, among others.

The 2018 act devoted considerable attention to the FAA's continued work on the integration of UAS into the National Airspace System. Key to this integration will be the ability to remotely identify a UAS and link it to its operator, a capability that is fundamental to the safety and security of UAS operations. A notice of proposed rulemaking on this subject is presently in executive-branch clearance.

Recognizing the capabilities of commercial UAS operations to carry cargo, Congress required that the FAA update existing regulations to allow for the practice. The FAA and industry have been demonstrating increasingly complex operations in this area as part of the UAS integration pilot program. We are using exemptions and waivers in the interim to meet the intent of the mandate, while gaining the experience necessary to change the rules.

The commercial space industry is booming, with an increasing number of launches and reentries every year. Congress, recognizing the growing importance of this industry, required that the FAA stand up an Office of Spaceports within the FAA's Office of Com-

mercial Space Transportation, and I am pleased to say the Office of Spaceports is up and running, and we are actively working with spaceport licensees and stakeholders.

In conclusion, I want to assure you that we are fully committed to carrying out the reauthorization provisions as quickly as possible, while making sure we do not sacrifice the substance behind each requirement in a rush to declare completion.

I would be happy to answer your questions. Thank you.

[Mr. Elwell's prepared statement follows:]

Prepared Statement of Daniel K. Elwell, Deputy Administrator, Federal Aviation Administration

Chairman Larsen, Ranking Member Graves, Members of the Subcommittee:

Thank you for the opportunity to appear before you today to discuss the Federal Aviation Administration's (FAA) ongoing work to implement the provisions of the FAA Reauthorization Act of 2018 (2018 Act or Act). The 2018 Act is a wide-ranging reauthorization measure that provided the FAA with a host of critical new authorities and responsibilities on a broad range of aviation issues including enhancing safety, improving infrastructure, and enabling innovation. Although the 2018 Act reauthorized aviation programs for five years, the vast majority of the specific mandates require FAA action within the first year. The Act's focus on the first year of the reauthorization period, as well as other challenges that the FAA has encountered since enactment, has required the FAA to prioritize its implementation strategy. Despite these challenges, I am pleased to report that the FAA has made substantial progress on fulfilling the congressional mandates in the Act, and I would like to summarize for you some of the FAA's accomplishments.

AIRCRAFT CERTIFICATION & FLIGHT STANDARDS

The regulations and policies that guide the FAA's approach to aircraft certification and flight standards have evolved over time in order to adapt to an ever-changing industry, and to ensure that safety is always our first priority. Continuous improvement is an integral component of the FAA's safety culture and we are committed to learning from our experiences and using what we have learned to improve our process.

- *Safety Oversight and Certification Advisory Committee*. The 2018 Act requires the Secretary of Transportation to establish a Safety Oversight and Certification Advisory Committee (SOCAC) to advise the Secretary on policy-level issues facing the aviation community related to FAA safety oversight and certification programs and activities. The Act further requires the new advisory committee to focus on a number of specific aspects of the FAA's safety oversight role including, for example, organization designation authorization (ODA).

  Secretary Chao this summer announced the appointment of 22 members to the advisory committee.[1] The SOCAC consists of members representing stakeholders from across the aviation sector. Additionally, the Secretary created a Special Committee within the structure of the SOCAC to specifically review FAA procedures for the certification of new aircraft.[2] Through this framework, leading outside experts will help determine if improvements can be made to the FAA's aircraft certification process. As Secretary Chao emphasized, safety is the number one priority of the Department. The FAA embraces meaningful oversight to make air transportation safer. We welcome the work of the SOCAC and the Special Committee and look forward to reviewing their recommendations.
- *Organization Designation Authorization Office*. The use of delegation, in some form, has been a vital part of our Nation's aviation safety system since the 1920s. Congress has continually expanded the designee program since creation of the FAA in 1958, and it is critical to the success and effectiveness of the certification process. In March 2019, consistent with requirements under the 2018 Act, the FAA formally established the Organization Designation Authorization (ODA) Office within the Office of Aviation Safety. This Office will ensure con-

[1] https://www.transportation.gov/briefing-room/us-secretary-transportation-elaine-l-chao-announces-appointees-safety-oversight-and-0

[2] https://www.transportation.gov/briefing-room/dot1619

sistency of ODA oversight functions. It will facilitate standardized application of policy, ensure the proficiency of ODA staff in executing oversight processes, monitor risk and performance issues, and facilitate continuous improvement of ODA program performance.

- *Aircraft Certification Performance Objectives and Metrics*. The 2018 Act requires the FAA to establish, in conjunction with the SOCAC, aircraft certification performance metrics and to apply and track the metrics for both the FAA and industry. After a months-long effort to develop the metrics, the FAA, in collaboration with the Safety Oversight and Certification Aviation Rulemaking Committee, established a list of 14 metrics in August 2019. The FAA is prepared to track the metrics after coordinating with the SOCAC at their initial meeting in November 2019. We expect that tracking these metrics will allow the FAA to identify inefficiencies, increase accountability, and improve safety.
- *Flight Standards Performance Objectives and Metrics*. The Act also requires FAA to establish, in conjunction with the SOCAC, flight standards performance metrics. In August 2019, the FAA established the Flight Standards Transparency, Performance, Accountability, and Efficiency Aviation Rulemaking Committee. This rulemaking committee has been tasked to make recommendations concerning the performance metrics for both the FAA and industry.

AVIATION SAFETY

The 2018 Act is the most comprehensive aviation reauthorization measure enacted in over 30 years. In addition to the 33 separate FAA rulemakings required under the Act, Congress also required the FAA to create new Aviation Rulemaking Committees (ARCs) and to task the existing Aviation Rulemaking Advisory Committee (ARAC) with specific responsibilities concerning various aviation safety objectives. The list below provides a glimpse into some of the important work the FAA has accomplished in this area since enactment.

- *Flight Attendant Duty/Rest Period*. Ensuring that crewmembers are properly rested is a critical component of aviation safety. In April 2019, the FAA initiated a rulemaking in accordance with the 2018 Act, to modify applicable rules to require a minimum rest period of 10 hours for any flight attendant scheduled to a duty period of 14 hours or less.[3] In support of this effort, the FAA drafted an Advanced Notice of Proposed Rulemaking that published earlier this week. We expect the process will provide us with data from aviation stakeholders and the general public to assist us in developing the proposed rule.

  Additionally, on June 18, 2019, the FAA published information to advise the industry of the flight attendant fatigue risk management plan requirements contained in the 2018 Act. The FAA is actively receiving and reviewing air carrier flight attendant fatigue risk management plans.[4]
- *Designated Pilot Examiners*. On June 20, 2019, the FAA directed the ARAC to review all regulations and policies related to designated pilot examiners.[5] Through the ARAC, the FAA will gather recommendations on regulatory and policy changes necessary to ensure that an adequate number of designated pilot examiners are deployed and available to perform their duties to meet the growing needs of the public.
- *Secondary Cockpit Barriers*. The 2018 Act requires the FAA to issue an order requiring the installation of a secondary cockpit barrier on each new aircraft that is manufactured for delivery to a passenger air carrier in the United States operating under part 121 of title 14, Code of Federal Regulations.[6] The FAA is committed to implementing this requirement. On June 20, 2019, the ARAC accepted an FAA tasking to provide recommendations regarding implementation of this provision. The FAA looks forward to reviewing the ARAC's recommendations and moving forward on this mandate.
- *Pilot Duty/Rest Period*. On May 21, 2019, the FAA established the Part 135 Pilot Rest and Duty Rules Aviation Rulemaking Committee.[7] The 2018 Act requires the FAA to convene the committee to review, and develop findings and

[3] https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201904&RIN=2120-AL41

[4] https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info/all_infos/media/2019/InFO19007.pdf

[5] https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/3944

[6] https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID=3942

[7] https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information?documentID=3965

recommendations regarding, pilot rest and duty rules under part 135 of title 14, Code of Federal Regulations.

- *Emergency Evacuation Standards*. On April 24, 2019, the FAA established the Emergency Evacuation Standards Aviation Rulemaking Committee. This ARC will provide a forum for affected parties to discuss and provide recommendations to the FAA on certification of emergency evacuation systems, designs, and procedures.[8] The formation of the ARC is a significant step forward in fulfilling the requirements under the 2018 Act to review and report on cabin evacuation procedures.
- *Safety Critical Staffing*. The 2018 Act requires the FAA to update its safety critical staffing model. The staffing model is an important mechanism to help determine the number of aviation safety inspectors needed to fulfill the FAA's safety oversight mission. The staffing model has been updated and new staffing forecasts have been developed. The FAA's Aviation Safety Workforce Plan was delivered to Congress in March 2019.[9]

UNMANNED AIRCRAFT SYSTEMS (UAS)

The 2018 Act devoted considerable attention to the FAA's continued work on the integration of UAS into the National Airspace System (NAS). The points below highlight some of the Agency's important work in this area.

- *Remote ID*. To further the overall objective of integrating UAS into the NAS, Congress recognized the importance of remote identification when it enacted the FAA Extension, Safety, and Security Act of 2016. That Act laid the foundation for the FAA's work with operators and security partners to realize the importance of remote identification and reach a consensus on how to address it. More recently, the 2018 Act provided the FAA with the authority to continue its work on this important issue. In May 2019, the FAA published a notice implementing the 2018 Act's legislative exception for limited recreational operations of unmanned aircraft.[10] Additionally, in July 2019, the FAA expanded the Low Altitude Authorization and Notification Capability (LAANC) system to include recreational flyers.[11] This action increased the safety of the NAS and the ability of recreational UAS operators to gain rapid authorization for access to controlled airspace nationwide. Further, the 2018 Act provided clarity on the requirements for recreational UAS operations and has allowed the FAA to move ahead with work on UAS registration and remote identification—both of which are critical to the success of commercial UAS operations and UAS integration more broadly.

  Remote identification is fundamental to both safety and security of UAS operations. Remote identification will be necessary for routine beyond visual line-of-sight operations, operations over people, package deliveries, operations in congested areas, and the continued safe operation of all aircraft in shared airspace. It will also be foundational for the advancement of automated passenger or cargo-carrying air transportation, which is often referred to as Urban Air Mobility. With remote identification, the FAA and our national security and public safety partners will be better able to identify a UAS and its operator, assess if a UAS is being operated in a clueless, careless, or criminal manner, and take appropriate action if necessary. Remote identification is the FAA's highest priority UAS-related rulemaking effort. A draft Notice of Proposed Rulemaking (NPRM) on this subject is presently in Executive Branch clearance.
- *Carriage of Property by Small Unmanned Aircraft Systems*. Congress also recognized, in the 2018 Act, the growing potential of UAS to deliver cargo. In particular, the Act requires the FAA to update existing regulations to authorize the carriage of property by operators of UAS for compensation or hire in the United States. The FAA has been working closely with the participants in the UAS Integration Pilot Program (IPP) to accelerate safe UAS operations. The IPP has evaluated a host of operational concepts including operations at night, over people, beyond the pilot's line of sight, and package delivery. This work is ongoing, and the FAA is currently meeting the intent of the mandate through an exemption process. Earlier this year, the FAA granted the first air carrier certification to a commercial UAS operator for package deliveries in rural Blacksburg, Virginia. Although the regulatory framework for broader UAS operations is not

[8] https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information?documentID=3983.
[9] https://www.faa.gov/about/plans_reports/media/fy19_avs_wfp.pdf
[10] https://www.govinfo.gov/content/pkg/FR-2019-05-17/pdf/2019-10169.pdf
[11] https://www.faa.gov/news/updates/?newsId=94105

complete, the IPP has helped to inform the FAA and UAS operators of the extent to which operations can begin under existing rules.

- *Local Public Safety Engagement on UAS Operations*. The 2018 Act directed the FAA to develop a comprehensive strategy to support and provide guidance for state and local public safety partners to identify and respond to threats posed by UAS as well as opportunities to use UAS to enhance the effectiveness of first responders. The FAA has made a substantial and continuing effort to make the information needed by Federal, state and local entities readily available. The FAA has assembled a great amount of useful and easily accessible information on its web page dedicated to public safety and government UAS issues.[12] Here, government stakeholders can find information on how to operate UAS, how to start a UAS public safety program, and information on waivers and authorizations supporting emergency UAS operations. The website also provides guidance on understanding local authority and the handling of UAS sightings and reports of non-compliant UAS operations. The FAA's informational toolkit consists of videos, guidance, and other resources that can assist local law enforcement agencies in their handling of situations involving UAS, including a public safety engagement plan.[13] Throughout this information, the FAA has sought to emphasize that: (1) flying UAS is a regulated activity and there are Federal rules for flying UAS legally and safely; (2) flying at night, too close to people, or in restricted or controlled airspace is generally prohibited without FAA authorization; (3) the small UAS rule—part 107 of title 14, Code of Federal Regulations—provides the framework for routine, low-altitude small UAS operations; and (4) FAA's Law Enforcement Assistance Program (LEAP) can help local public safety partners distinguish between what is and is not allowed under Federal rules.

AIRPORTS

In keeping with this Administration's goal of improving our Nation's airport infrastructure, the 2018 Act prioritized efforts to improve airport infrastructure planning and development. The FAA is making continuous progress in carrying out the congressional mandates contained in the Act. Some of the more important initiatives that the FAA is working on include the following:

- *Passenger Facility Charge (PFC) Streamlining*. In the 2018 Act, Congress directed the FAA to expand the streamlining concept for PFC applications to all eligible airports (no longer limiting it to just non-hub primary airports). The FAA is making excellent progress in developing a proposed approach to a new pilot program, while also identifying opportunities to improve the existing process in the interim. This potential approach would yield near-term benefits for the Nation's airports, while also providing the necessary data to support the regulatory changes that are still required under the statute. It will also help the FAA address concerns expressed by the airline community.
- *Airfield Pavement for Non-Primary Airports*. The 2018 Act authorized states to request the use of highway specifications for airfield paving and construction if aircraft serving the airport do not exceed 60,000 pounds and safety would not be affected. The FAA's draft guidance on this provision is nearing completion and we anticipate that this authority will create some opportunities for capital cost reductions without eroding safety. Additionally, as required by the Act, the FAA stands ready to provide technical assistance to any state that may want to develop alternative airport pavement standards where local conditions and locally available materials may make this desirable.
- *Contract Towers*. The FAA is making significant progress in implementing the 2018 Act concerning the processing of new applications to the Contract Tower program and benefit-cost analysis of contract towers. In June 2019, the FAA reopened the applications for new towers to the program. To date, we have received nine applications for entry into the program. In accordance with congressional direction, the FAA has conducted updated benefit-cost analyses for existing cost-share participants and will notify sponsor airports of the results by the end of September.

  In addition, the FAA is making significant progress on implementing the 2018 Act's elimination of the $2 million cumulative Airport Improvement Program (AIP) cap, and authorization for the FAA to use resources from the Small Airport Fund (a key component of the AIP) for eligible contract tower projects. The FAA has moved swiftly to implement these changes with updated guidance,

[12] https://www.faa.gov/uas/public__safety__gov/

[13] https://www.faa.gov/uas/resources/policy__library/media/Public__Safety__Engagement__Plan.pdf

and is working with potential recipients of these funds for high-priority tower projects.

- *Limited Land Use Regulation for Airports*. As part of the 2018 Act, Congress imposed limitations, with certain exceptions, on the FAA's authority to regulate an airport's acquisition, use, lease, encumbrance, transfer, or disposal of land and facilities. Implementation of this section is a high priority for the FAA. We have already identified more than 25 projects where airports have been able to move forward with minimal FAA involvement. These early examples have provided valuable information that is helping the FAA to develop guidance to ensure that the provision is consistently implemented.
- *Airport Firefighting*. The 2018 Act enacted limitations on the FAA's authority to require the use of certain firefighting chemicals. In particular, starting three years after the date of enactment, the FAA is prohibited from requiring the use of fluorinated chemicals to meet performance standards for firefighting agents. The FAA is making great progress in both the development of a facility to conduct live firefighting agent testing and, in its collaboration with other agencies, to advance identification and evaluation of alternative firefighting agents. In the meantime, we have also implemented short-term changes to reduce the release of fluorinated chemicals into the environment by airports, including the approval of three testing systems that do not result in the external discharge of fluorinated chemicals. We also issued guidance to airports alerting them to their ability to use AIP funds to purchase these testing systems.

HAZARDOUS MATERIALS IN AIR TRANSPORTATION

Within the Department of Transportation, the Pipeline and Hazardous Materials Safety Administration (PHMSA) has the primary responsibility for establishing multi-modal regulations for the safe transportation of hazardous materials, to include establishing rules for the classification, containment, and communication of the presence of hazardous materials. PHMSA is leading critical lithium battery regulatory initiatives prescribed by the 2018 Act and the FAA is working to ensure compliance with air transport safety regulations as well as conducting a public awareness campaign.

- *Lithium Battery Safety Working Group and Safety Advisory Committee*. PHMSA is establishing a working group to promote and coordinate efforts related to the safe manufacture, use, and transportation of lithium batteries and cells. PHMSA is also establishing a lithium ion and lithium metal battery air safety advisory committee to facilitate communication between manufacturers, air carriers, and the Federal Government regarding the safe air transportation of lithium ion and lithium metal batteries as well as the effectiveness, economic, and social impacts of the regulation of such transportation.
- *FAA Cooperative Efforts to Ensure Compliance with Safety Regulations*. In support of the broader hazardous materials safety effort, the FAA focuses on conducting oversight of the integration of hazardous materials safety measures into the aviation transportation system. Accordingly, the FAA is leading efforts, consistent with the 2018 Act requirements, to improve interagency and international cooperative efforts to ensure compliance with safety regulations for air transport of lithium batteries.
- *Undeclared Hazardous Materials Public Awareness Campaign*. The FAA launched a new website that provides stakeholders—including shippers, air carriers, and the traveling public—with a one-stop shop they can easily access to find information and answers to their questions.[14] The FAA recently provided Congress with an update of our public awareness campaign to reduce undeclared dangerous goods in air commerce. The FAA is also participating in an industry/government/labor coalition that meets regularly to strategize on improvements to the messaging and other tools that industry uses to educate their customers on the proper procedures for transporting hazardous materials by aircraft. Additionally, the FAA is supporting a PHMSA-led public education campaign known as "Check the Box" to increase public awareness of the risks associated with undeclared shipments of hazardous materials.[15]

INNOVATION

This Administration has made it a priority to engage with new and emerging technologies and enable innovation wherever possible. Innovations in aviation and

[14] https://www.faa.gov/hazmat/
[15] https://checkthebox.dot.gov

aerospace have benefitted our economy, transformed the way we travel, helped the environment, and saved lives. In the 2018 Act, Congress recognized the importance of innovation and the FAA is working to foster it while maintaining the safety of the NAS.

- *Supersonics*. In the 2018 Act, Congress supported FAA leadership on the creation of policies, regulations, and standards to enable the safe and efficient operation of civil supersonic aircraft. As part of the FAA's efforts to implement this authority, the FAA in June 2019 published an NPRM intended to clarify and streamline the procedures for special flight authorizations for supersonic aircraft.[16] The FAA is currently reviewing the comments we received on the NPRM and considers this rulemaking to be one of the FAA's first actions in a continued and concerted effort to advance the operation of civil supersonic aircraft consistent with our other statutory and international obligations concerning noise and emissions.
- *Noise*. Over the decades, the aviation industry has made significant progress in the development of technology to reduce noise from aircraft. Congress and the FAA have worked closely on this continued effort and the FAA is currently working to complete the noise-related requirements contained in the 2018 Act. One provision directs the FAA to complete a study on the potential health and economic impacts of overflight noise. The FAA recently awarded a $1.7 million grant to university members from the FAA's Air Transportation Center of Excellence for Alternative Jet Fuels and the Environment in order to carry out the study. The Act also required the FAA to designate a regional ombudsman for each of the FAA's regions to act as a liaison with the public on issues of noise, pollution, and safety. The FAA elected to designate our community engagement officers as the regional ombudsman. They are in the process of being on-boarded and trained. The FAA will announce the individuals as soon as training is completed, which we anticipate will be in October of this year. The FAA is constantly working to foster better communication between the Agency and affected communities.
- *Commercial Space*. The commercial space transportation industry in the United States is innovative, dynamic, and growing. In Fiscal Year 2018, there were 32 launches and 3 reentries of commercial space vehicles for a total of 35 licensed activities—a record. For Fiscal Year 2019, we had 32 licensed and permitted operations. We are forecasting 35 to 54 licensed or permitted operations in Fiscal Year 2020, and between 33 and 56 licensed or permitted operations in Fiscal Year 2021. In anticipation of this expected growth, the FAA has intensified its efforts to fulfill its commercial space transportation mission, maintaining the highest level of safety without stifling industry expansion and innovation. Congress has recognized the importance of this growing industry and the 2018 Act called for the FAA to stand up an Office of Spaceports within the FAA's Office of Commercial Space Transportation. That Office of Spaceports is up and running and we are actively working with Spaceport licensees and stakeholders. Additionally, although not mandated in the 2018 Act, the FAA is engaged in an important rulemaking to streamline existing launch/reentry regulations to create an environment that promotes economic growth, minimizes uncertainty, protects safety, fosters security, aligns with foreign policy interests, and encourages American leadership in space commerce.[17] The commercial space transportation market is changing rapidly and our regulatory process needs to keep up in order to protect public safety while enabling U.S. industry to innovate. We are currently analyzing industry comments to determine the best path forward to complete the rule.
- *Cyber Testbed*. Cybersecurity has become a significant component of nearly every modern aviation technological development. The 2018 Act required the FAA to develop a cyber testbed for research, development, evaluation, and validation of air traffic control modernization technologies to ensure that they are compliant with FAA data security regulations before they become operational. The FAA completed this action and the Cybersecurity Test Facility (CyTF) is now operational at the William J. Hughes Technical Center in Atlantic City, New Jersey. The CyTF provides the FAA with an adaptable cybersecurity test environment to evaluate technologies prior to their integration into the National Airspace environment. The facility is also used for the cybersecurity training of the FAA workforce. Also, as part of an additional cybersecurity requirement

[16] https://www.federalregister.gov/documents/2019/06/28/2019-13079/special-flight-authorizations-for-supersonic-aircraft

[17] https://www.federalregister.gov/documents/2019/04/15/2019-05972/streamlined-launch-and-reentry-licensing-requirements

under the Act, the FAA is updating its overall Strategic Cybersecurity Plan. The Agency's Cybersecurity Steering Committee has completed the yearly update, and we expect to publish the FAA's 2020–2025 cybersecurity strategy in the coming weeks.

CONCLUSION

Chairman Larsen, I want to assure you, and each member of the Subcommittee, that the FAA is fully committed to carrying out the provisions of the 2018 Act as quickly as possible.

The FAA takes the congressional direction we receive very seriously and our employees work hard to achieve the mandated goals and directives. We have to ensure, however, that the substance behind each requirement is not sacrificed in a rush to declare completion. We are confident that we are making substantial and meaningful progress and we fully intend to keep Congress apprised of that progress on a regular basis. This concludes my statement and I will be glad to answer your questions.

Mr. LARSEN. Thank you, Mr. Elwell. I will now turn to Joel Szabat for 5 minutes.

You are recognized.

Mr. SZABAT. Chairman Larsen, Chairman DeFazio, Ranking Members Graves, members of the subcommittee, thank you and Congress for passing the 2018 FAA reauthorization last fall, and for inviting me to testify on behalf of the Department of Transportation.

I also thank the committee for allowing Ms. Blane Workie to join us. She is our assistant general counsel for the Department's Office of Aviation Enforcement and Proceedings and, thanks to a provision in the reauthorization, our new aviation consumer advocate.

The more than 550 sections of the act cover a wide range of aviation issues, many supporting Secretary Chao's and this committee's first priority of safety, and the Department's mission to ensure the safest and most efficient airspace in the world.

Despite the Government shutdown last winter and our daily operational safety priorities within the Department, we have made great progress on the safety, civil rights, and consumer protection provisions of the act.

The reauthorization includes more than 360 deliverables for the Department of Transportation, as Ranking Member Graves noted, including those assigned to the FAA. We are not able to tackle every deliverable simultaneously, or produce all the required reports and regulations within the first year. We remain committed to accomplishing all of the provisions of the reauthorization as quickly as practicable.

We have already responded to key reauthorization requirements by establishing new offices to deal with important issues, such as offices providing oversight of the Organization Designation Authorization, and relating to consumer advocacy and support of our Nation's spaceports.

In other cases, provisions of the law provide useful guidance and authority to ensure that our grant programs are more accessible, and that innovative programs, such as the integrated pilot program for unmanned aircraft systems, or UAS, can continue and expand.

On the safe transportation of lithium batteries, the FAA and the Pipeline and Hazardous Materials Safety Administration have already coordinated to match our rules with international standards, and allow lithium battery carriage exceptions for medical devices.

They have established groups to provide research, evaluation, and safety recommendations on the issue.

The reauthorization bolstered our efforts to maintain the world's safest airspace through the formation of several new advisory bodies and mechanisms to ensure safety. In addition to calling for reviews of the certification process for the Boeing 737 MAX, the Secretary and Administrator have also created groups such as the Safety Oversight and Certification Advisory Committee to augment the work of multiple ongoing inquiries.

Within 1 month, the DOT reconstituted the Aviation Consumer Protection Advisory Committee, and established the National In-Flight Sexual Misconduct Task Force. We are determined to address the problem of in-flight sexual misconduct to enable a safe flight in every sense of the word.

To ensure more accessible air service, we will develop the Airline Passengers with Disabilities Bill of Rights. We will review with input from stakeholders and, if necessary, revise regulations to ensure that passengers with disabilities receive dignified, timely, and effective assistance from trained personnel.

We will also ensure regular training occurs for personnel charged with providing physical assistance to those passengers with disabilities.

We have also issued notices and solicited applications for the Air Ambulance and Patient Billing Advisory Committee and the Air Carrier Access Act Advisory Committee. Both committees are established now. We will announce meeting dates after coordination with the committee members.

We have taken steps to advance each of the 33 required rulemakings that Deputy Administrator Elwell mentioned from the act. We expect to publish recommendations harmonizing the carriage of dangerous goods, including lithium batteries, and providing for remote identification of UAS, a critical step in enabling advanced operations. Other planned regulations will ensure that we are being responsive to the flying public.

The upcoming rulemaking agenda for the fall will include seven rules focused on improving customer experience with airlines. These proposed rules will advance requirements for limiting cell phone usage on aircraft, ensure the public receives refunds for denied or unprovided service, and clarify the rights of passengers.

While we have not yet completed all our obligations under the reauthorization, we have demonstrated our commitment to meeting them. And we have the right principles in place to accomplish the work.

On behalf of the Secretary, I commit to continue our work to achieve a safe, accessible vision for aviation. I am happy to join the Deputy Administrator, Dan Elwell, and our staff to answer any further questions you may have.

[Mr. Szabat's prepared statement follows:]

Prepared Statement of Hon. Joel Szabat, Acting Under Secretary for Policy, Department of Transportation

Chairman Larsen, Ranking Member Graves, Members of the Subcommittee:

Thank you to the Committee and to Congress for passing the 2018 FAA Reauthorization Act last fall and for inviting me to testify on behalf of the U.S. Department of Transportation (DOT). The more than 550 sections of the Act cover a wide range of aviation issues, many supporting Secretary Chao's first priority of safety and the Department's mission to provide the safest and most efficient airspace in the world. Our team is working to accomplish the directives Congress set forth in the Act, which provided the stability and direction needed to continue the important missions we oversee on a day-to-day basis and to address new challenges.

Despite the government shutdown last winter and our ongoing response to the fatal accidents and grounding of the 737 MAX, we have made great progress on the safety, civil rights, and consumer protection provisions of the Act. We identified more than 360 deliverables for the Department, and, while we have not been able to address all of the deliverables simultaneously or meet all the requirements in this first year, the Department has demonstrated unwavering commitment to the provisions of the Act. We will continue to deliver on the goals and realize the vision of this Committee and this Congress as a whole.

With many different mandates, each meriting timely completion, the responsible course of action is to distribute and schedule the work in a way that reflects the key principles of our mission. This also must be done without disrupting ongoing work in matters of safety, policy, oversight, and operations.

Working with the Federal Aviation Administration (FAA), our other modal administrations, and other agencies as necessary, we have addressed safety, accessibility and consumer rights, and a stronger, more efficient infrastructure. We have also advanced the integration of new technologies into the airspace that hold promise for improved safety, accessibility, and economic opportunity, such as Unmanned Aircraft Systems (UAS). I am sure the members of this Committee share these goals, and I look forward to discussing some of our achievements to date.

SAFETY

DOT takes pride in our extremely successful safety record and appreciates the additional authorities and measures taken in this latest reauthorization to continue that legacy. We have already responded to Reauthorization requirements to establish new offices to deal with important issues, such as oversight of delegated authorities, (e.g. Organization Designation Authorizations), consumer advocacy, and support of our Nation's spaceports.

To help maintain the safety of passengers with respect to lithium batteries, the FAA and the Pipeline and Hazardous Materials Safety Administration (PHMSA) are taking action to implement Reauthorization provisions. We have harmonized domestic regulations with the ICAO Technical Instructions, begun working with stakeholders to identify and mitigate risks, and established inter-governmental and industry working groups to provide research, evaluation, and safety recommendations for the safe air transportation of lithium batteries.

The Reauthorization has also augmented our work in maintaining the world's safest airspace through the formation of several new advisory bodies and mechanisms. For example, the Secretary has already created task forces such as the Safety Oversight and Certification Advisory Committee. The continued authority and certainty provided by the Reauthorization has been helpful in allowing us to continue to provide the world's highest expectation of safety for the flying public.

These efforts are taking place in the context of evaluating Boeing's 737 MAX aircraft for clearance to fly in the United States. As the Secretary has said repeatedly, the 737 MAX will not return to service until the safety experts at the FAA have determined it is safe to fly. The Secretary and the FAA Administrator have called for multiple objective and substantive reviews of the FAA's certification process and its analysis of the 737 MAX safety issues and potential resolutions. The issues with the 737 MAX are now being reviewed, studied, and addressed by the NTSB, the Special Air Certification Committee convened in March, the DOT Inspector General, an interagency Technical Advisory Board, the Joint Authorities Technical Review Team, various Congressional committees, and others. We will continue this important work, including ongoing coordination with other nations' safety certification authorities.

CONSUMER ADVOCACY

The Department is also actively working to implement the many aviation consumer protection and civil rights provisions of the Act, and we are doing it with the help of the people whose voices need to be heard. The Act requires us to establish four advisory committees, develop seven mandatory rulemakings, consider four discretionary rulemakings, and conduct twelve studies, reports or other tasks. Here are some highlights of our accomplishments.

Key mandates in the Reauthorization include establishing an Aviation Consumer Advocate within DOT to assist consumers in resolving airline service complaints filed with the Department, to identify actions the Department can take to improve the resolution of airline service complaints and enforcement of aviation consumer protection rules, and to identify regulations and policies that can be amended to resolve airline service complaints more effectively. In March 2019, we selected Blane Workie, Assistant General Counsel for the Department's Office of Aviation Enforcement and Proceedings, to serve as the Aviation Consumer Advocate. To help her fulfill the responsibilities of the Aviation Consumer Advocate, Ms. Workie has already established two new positions in her office—Director of Consumer Advocacy and Director of Civil Rights Advocacy.

Approximately a month after the passage of the bill, DOT reconstituted the Aviation Consumer Protection Advisory Committee (ACPAC) and established the National In-Flight Sexual Misconduct Task Force (Task Force) as an ACPAC Subcommittee. The first ACPAC meeting was scheduled for January 16, 2019, but had to be canceled because of the government shutdown. The meeting was then held in early April, and focused on the transparency of airline ancillary service fees, involuntary changes to travel itineraries, and the operation of the Task Force. The work of the ACPAC is ongoing.

Also, the Task Force members have been actively exploring how best to address and prevent incidents of sexual misconduct on board aircraft. The Department is very committed to addressing the problem of in-flight sexual misconduct and assault to provide a safe flight in every sense of the word. The Task Force members have already met five times this year in one or two-day meetings that occurred in April, May, June, July and September. The work focused on training, reporting, and data collection regarding incidents of sexual misconduct. As part of their duties, Task Force members have heard and reviewed first-hand accounts from passengers and flight attendants who have experienced sexual misconduct onboard commercial aircraft. We expect the Task Force to conclude its work this calendar year.

ACCESSIBLE AIR SERVICE

The Reauthorization also contains several provisions requiring DOT to review its Air Carrier Access Act regulation and take certain actions as appropriate. For example, section 433 directs us to consider developing specific recommendations regarding improvements to wheelchair assistance by U.S. airlines, and how airline training programs can address consumer complaints regarding wheelchair assistance. Section 434 requires us to develop the "Airline Passengers with Disabilities Bill of Rights." As required by section 440, we will also review, and if necessary, revise regulations to ensure that passengers with disabilities receive dignified, timely, and effective assistance from trained personnel. We will also require training to occur on an annual schedule for personnel charged with providing physical assistance to passengers with disabilities.

We have already started the process of reviewing the regulations to determine what actions need to be taken in these areas. We look forward to consulting with stakeholders, including disability organizations, airlines, and their contractors. We also just established the Air Ambulance and Patient Billing Advisory Committee (AAPB Advisory Committee) and the Air Carrier Access Act Advisory Committee (ACAA Advisory Committee). Both necessitated issuing of notices to find the best-suited members, and both committees are now in place. The active ongoing work of the Department in forming and engaging with these committees as well as with ACPAC, reflects our commitment to protecting the rights of air travelers, to human dignity in general, and to the American ideal of balanced representation.

The AAPB Advisory Committee will make recommendations regarding disclosure of charges and fees for air ambulance services and insurance coverage, as well as consumer protection and enforcement authorities of both DOT and State authorities, and the prevention of balance billing to consumers. The ACAA Advisory Committee will identify and assess barriers to accessible air travel, determine the extent to which DOT is addressing those barriers, recommend improvements, and advise the Secretary on implementing the Air Carrier Access Act. We will announce the date of the first meeting of the AAPB Advisory Committee as well as the first meeting

of the ACAA Advisory Committee after coordinating with the advisory committee members.

CONSUMER-FOCUSED REGULATION

The Department is committed to enhancing consumer protection and access in the aviation sector. We believe that there should be no more regulations than necessary, and those regulations should be straightforward, clear, and designed to minimize unnecessary and costly burdens on aviation stakeholders. During the past year, we made strides in implementing the consumer protection and access rulemaking mandates in the Reauthorization. These rulemakings are all identified in the Department's upcoming fall Unified Agenda of Regulatory and Deregulatory Actions as actions we plan to issue in the near and long term. Among these rules are regulations that would issue guidance on cell phone communications on aircraft, require refunds to customers for services not received, require minimum customer service standards of large ticket agents, and streamline the consumer complaints process.

The Reauthorization also prohibits U.S. and foreign airlines from denying boarding to a revenue passenger traveling on a confirmed reservation, or involuntarily removing that passenger from the aircraft once the passenger has checked in for flight before the check-in deadline, and his or her boarding pass has been collected or accepted by the gate agent.

We will also be issuing a proposed rule related to traveling by air with service animals. There is rising concern that passengers are increasingly bringing untrained emotional support animals onboard aircraft—which could put the safety of crewmembers and other passengers at risk. Our rulemaking will define "service animal," develop minimum standards for what is required for service animals and address the issue of emotional support animals. Last year, DOT published an Advance Notice of Proposed Rulemaking on service animals, and we plan to issue a Notice of Proposed Rulemaking later this year. We want individuals with disabilities to continue using their service animals, while also maintaining safety and reducing the likelihood that other passengers will be able to falsely claim their pets are service animals.

INNOVATION AND INFRASTRUCTURE

We remain in close communication with industry, international regulatory bodies, and the public when it comes to the technology that is promising to reshape aviation as we know it—Unmanned Aircraft Systems (UAS). We are entering the final year of the President's Integration Pilot Program, where we have been working steadily with industry, State, local, and tribal governments to enable unique operations, and more importantly, to uncover the key issues we face as a Nation in adapting a disruptive, but promising technology into a complex, highly coordinated airspace system. We continue to receive recommendations from the Drone Advisory Committee (DAC), our test sites, our centers of excellence for research, standards bodies, and international partners on what the focus of our work should be and the next steps that will continue UAS integration on a larger scale.

We are engaging with the public through the rulemaking process and the DAC. Earlier this year, we published our proposed amendment to Part 107 that will allow for limited, safe operations over people, flights at night, and easier ways for Part 107 pilots to remain current in their certifications. We are working with our intergovernmental partners and the Office of Management and Budget to publish a proposed rule that will establish remote identification requirements for UAS. This will be a key milestone in promoting the safe operations of UAS as we continue to work with industry to develop the technologies that will enable routine beyond-visual-line-of-sight (BVLOS) and truly integrated operations. These advances offer significant new opportunities, and we will continue to work with the public and all relevant government and industry partners to realize these milestones.

We are doing more than rulemaking. Under Section 349 of the Act, we opened airspace authorizations to recreational flyers of UAS for quick, automated access to airspace. We are establishing a framework for broad, electronic testing that will make UAS instructions more accessible, and more understandable to more potential flyers, than ever before. This year, the FAA granted the first air carrier certification to a commercial drone operator for package deliveries in rural Christiansburg, Virginia, and other similar certifications will follow. The Department has not only been innovating the way forward, but we have been collaborating, building consensus, and constructing UAS solutions that promote safety, security, and responsibility, along with greater UAS operations.

We also have a responsibility to invest in our Nation's infrastructure, and the funding for grant programs, including the Airport Improvement Program, in the Re-

authorization will help to provide the best possible environment and experience for travelers to small and large airports. We have already implemented all of the statutory changes to the Essential Air Service (EAS) Program and the Small Community Air Service Development Program (SCASDP), and we have a keen interest in administering these small community programs as effectively as possible.

CONCLUSION

While we have not yet completed all of our obligations under the Reauthorization, we have demonstrated our commitment to meeting them, and we have the right principles in place to accomplish the work. On behalf of the Secretary, I assure you that we will continue our diligent work and push forward, collaboratively, to achieve the safe, accessible vision for aviation that Congress set forth as a shared ideal in the Reauthorization. I am happy to join Dan Elwell and our staff to answer any further questions you may have on these provisions.

Thank you all for your time and attentiveness.

Mr. LARSEN. Thank you. I will recognize myself for 5 minutes.

And I think the committee members appreciate both of you saying that FAA and DOT remain committed to completing the mandates that we put into the bill.

I also think I convey the frustration that you haven't moved fast enough.

For instance, on the 10-hour rest rule, we were very specific about what we wanted to see, and how we wanted to see it, and when we wanted to see it. I guess we thought that we didn't leave a lot of ambiguity in the law about what we wanted. And yet, here we are in September, still waiting on a 10-hour rest rule. So can either of you address what has been the delay, specifically, to implementing a 10-hour rest?

Mr. ELWELL. Yes, Chairman Larsen, thank you for that question. I will start.

We will implement that rule and that provision, consistent with the law. And you, I believe, mentioned it—or, Chairman DeFazio, I think you mentioned—that we are in the process of processing the fatigue risk management plans. There are 48 airlines in the country that have flight attendants. We have received 28 fatigue risk management plans to date; 10 have been approved. And these are plans that are designed to meet the requirement.

It was not ambiguous language, sir. But what we weren't cleared from doing is normal Administrative Procedure Act requirements. We have to do notice and comment for a rule like this. We have to do benefit-cost analysis. And that entails rulemaking.

So, as we said, the ANPRM has been dropped—yesterday, I believe. Sir, you and Chairman DeFazio, we commit that those comments that come from the ANPRM will inform and, actually, should—my hope is—should accelerate the eventual passage of the rule because the writing of the NPRM will be informed by those initial comments, and I think lead to a better written rule and, hopefully, expedition. But we have every intention of getting that done, sir.

Mr. LARSEN. I am sure others will have followup questions on that.

I want to ask Mr. Szabat what your timeline is for establishing the bill of rights for travelers with disabilities.

Mr. SZABAT. Thank you, Mr. Chairman, for the question. As I mentioned in my testimony, we are committed to fulfilling the re-

quirements of establishing an Airline Passengers with Disabilities Bill of Rights.

We have established the Air Carrier Access Act Advisory Committee, and one of our very first steps, the first charges to that committee, is for them to take a look at the requirements that are set in statute for developing such a bill of rights, and to make recommendations back to us. So, if you will, the first step is we have established the committee to look at this. They will make recommendations back to us. And then our obligation is to look at those recommendations and implement them as quickly as possible for the passenger bill of rights.

Mr. LARSEN. The next panel will have the president of the Paralyzed Veterans of America, and so just prepping the PVA to give us some guidance on how we can give you guidance to move forward more quickly.

Also, with regards to workforce, the workforce development title, I assume that is under your jurisdiction, as well, Mr. Szabat. Yes.

So the law directed the FAA to establish the Women in Aviation Advisory Board, to get moving on the Youth Access to American Jobs in Aviation Task Force. It does not seem that DOT has moved forward on those aspects of the workforce development. Do you have ideas for timelines on those?

Mr. SZABAT. Thank you again for the question, Mr. Chairman. As with you, the importance of first developing a strong workforce are recognizing the shortfalls in the workforce. And one of the key possible ways to address that—and just good in its own merits—by bringing more women into the aviation workforce are high priorities for us.

As it happens, within the last few days the paperwork for the Women in Aviation Task Force crossed my desk—we can expect to see an announcement that that task force has been formed within days, not weeks.

Mr. LARSEN. How many more desks does it have to cross, then, for it to become a reality?

Mr. SZABAT. In this case I think it has crossed the last desk. But until it is announced, I don't want to make any commitments, except to say it will be out within days, not weeks.

Mr. LARSEN. All right. Mr. Elwell, do you have any followup on anything there?

Mr. ELWELL. Sir, workforce is a very big priority to us, as it is to the Department. We are working apace on section 631, on the workforce grants. There are some technical difficulties on getting that processed, and getting it forward.

We also have a huge emphasis on STEM aviation and space education initiatives. We have increased our employee engagement with young people by 200 percent in the past year, and that is a program voluntarily FAA folks reach out to young people for getting into this industry.

It is a difficult challenge, because STEM—there is a shortage of STEM graduates across all sectors. So we are competing with other sectors on a shortage of these graduates. But we are trying to get them early. We are talking to them in elementary school.

Mr. LARSEN. So I will have my staff follow up with you, rather than ask the question about how we can help you get through

these technical difficulties on the grants, and conclude, and recognize Ranking Member Graves of Louisiana for 5 minutes.

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

Mr. Elwell, you and I have discussed on a number of occasions my frustration with scenarios where Congress implements a law, and when you have an agency either come back and not follow it, or invent their own interpretation that wasn't consistent with congressional intent. And when deadlines are in the law, and those deadlines aren't adhered to, it does cause a great bit of frustration.

Now, I know there were some anomalies with the FAA bill in that the conference negotiations between the House and the Senate were very, very quick. I know that there was some feedback expressed by the agency about the inability to meet certain deadlines without some expedited procedures, including potentially waiving the APA in some scenarios.

But I do want to reemphasize that adhering to these deadlines is important. We want to make sure that we continue to work together to ensure that we comply with many of these, including, as the chairman mentioned, the flight attendant rule—although I know, as I recall—and I am sure we can get an update later—I believe the number of the contracts that have been implemented between airlines and the flight attendants do include the 10 hours.

You mentioned in your testimony remote ID. Can you give a bit more verbose update on remote ID and what the administration can do to expedite implementation? And I think that this is one of the key areas, as you and I have discussed in the past, about the evolution of this technology and all the, I think, advances that it potentially brings to different sectors, including safety and disaster response and many, many others. Could you talk a little bit about efforts to expedite?

Mr. ELWELL. Yes, Mr. Graves. Thank you for the question. And I was remiss earlier when I started to not introduce the lady to my right. Ms. Lirio Liu is the resident expert at FAA on all things rulemaking. She is the Acting Deputy of the Office of Safety. But I expect I will be leaning to her a few times during this hearing today. Particularly on this, perhaps, Lirio can weigh in.

First, let me say, sir, I share your frustration. I hate to miss deadlines. And—but I won't—and, as the agency, we won't make a deadline and compromise, of course, safety. You wouldn't want us to. We are not going to do it. And not all deadlines are missed because of that, but you are right. And, in this case, there is just a volume of first-year requirements that, in light of other things going on in the past year, the deadline slipped.

On the remote ID, I too share your points that it is the foundational rule upon which everything else we do with UAS is going to flow. And we need to get it out. We had a lot of issues, a lot of technical issues with it at the beginning. A lot of it was interagency, quite frankly, law enforcement requirements and issues, and title 18 requirements, and the like. And we are very appreciative of Chairman DeFazio changing the provision on recreational modelers.

However, that caused us to basically start almost from scratch on writing the provision. So there has been a number of things. But, nevertheless, the rule is moving. We are going to get it done.

And I would turn to Ms. Liu if there is anything on the actual technical writing side of it that you wanted to add.

Ms. LIU. Thank you. Thank you, Mr. Elwell.

Yes, on the remote ID, it has actually been one of the priorities for the organization—quite a long period of time, I think you heard that, within the FAA, and many other testimonies that have been presented here—that it is sort of the linchpin for integrating UAS in the future.

The rule never stopped, from the time we started to work on it. And I think, as Mr. Elwell indicated, we had drafted a rule and were very close to finalizing it, but it had a lot of carve-outs as it relates to the section 336 of the previous reauthorization that counted for recreational users. Because of that limitation, we had to consider how we would actually do identification in various scenarios. So that was one reason why, when we got the provision now to include them, which we consider a great benefit, we did have to go back and rewrite the rule. But it is a benefit to us, and I think that we will end up with a much better regulatory framework in the end.

The rule currently is over at OIRA, which is the Office of Information and Regulatory Affairs at OMB. We expect that they will be expediting that review as well, because I think they recognize the significance. We have already done an in-brief with them just last Friday, as well as with the technical officer for the United States at the Office of Management and Budget there. So it would seem to be well received.

Mr. LYNCH. I am sorry. Could you move that mic a little closer to you? Yes, I am having trouble hearing. It is me, it is not you. Thank you.

Ms. LIU. Well, I probably have the same. But we have already had an in-brief with the rule. And as Mr. Elwell indicated, it is a technical rule, because it will set the basis for how we will do—what we do equivalently for manned aircraft is ADS–B. And it is going to also set the framework for our UTM in the future, which is the UAS air traffic management system.

And I think what is important is, even if the rule is not in place, what we are trying to do through a number of other aspects is to increase the compliance and expedite that.

I think another thing that is important is that this is going to be a unique role. And I think it is pretty innovative on our part, because it is going to be a partnership similar to what we do with the notification right now to get authorization to fly UAS. So it will use the public interest through a website.

I think that we have—yes, I think that we actually have a good framework in place. There was an RFI, request for information, that went out that outlined the provisions, so that the remote ID standards can be put out for it, so they can be starting to design towards that. And I feel that, for what we—even though there is a delay in the rulemaking, there is very good progress being made to support the remote identification——

Mr. GRAVES OF LOUISIANA. Thank you very much. Mr. Elwell, I do—I am going to submit questions for the record regarding section 506, 509, 549 regarding cybersecurity.

And Mr. Szabat, I also want to learn a little bit more about the status of emotional support animals, and what DOT is doing there. So I will be submitting some questions on that, as well.

Thank you, Mr. Chairman.

Mr. LARSEN. Thank you. Before I recognize Mr. DeFazio for 5 minutes, just the next three on the—after Mr. DeFazio, the next three on the Republican side will be Webster, Mitchell, and Gallagher. And the next three on the Democratic side will be—after DeFazio will be Lipinski, Cohen, and Davids, in that order. So just a heads-up for folks.

Chair DeFazio for 5 minutes.

Mr. DEFAZIO. I thank the chairman. Mr. Elwell, can you assure me that—the Congress said irreducible 10-hour break. That is not going to change, right? No matter what is going on in this rulemaking, or whatever, if we are that explicit, even if airlines complain it is going to cost them a bunch of money, or whatever, you can't reduce that. Would that be correct? That is a statute.

Mr. ELWELL. Sir—and I can commit that, under the confines of the reviews that it has to go through, and the other agencies that have to weigh in, that that is the intent, is to meet your——

Mr. DEFAZIO. Well, you—right. You can't——

Mr. ELWELL [continuing]. Meet your rule. And to meet the language——

Mr. DEFAZIO. I had a lengthy hearing with GSA yesterday where, you know, the law isn't the law. I just want to make sure, in this case, the law is the law. It says 10 hours. It is very explicit.

But here is the other side. I understand, you know, and I know—perhaps in the future, when we have to do these sorts of things, we will anticipate and obviate somehow the rulemaking process. But you are also—the air carriers, part 121, were supposed to submit fatigue risk management plans no later than 90 days. Now, they don't have to go through a rulemaking, they just have to send you a plan. What is the holdup with—you said you have only got 11 who have completed this.

Mr. ELWELL. Sir, we have 28 submitted. And as far as their meeting that 90 days, we are talking to them along the way.

Mr. DEFAZIO. Is there a possibility of fining them if they are not in compliance with that?

Mr. ELWELL. I will have to get back to you on the enforcement side of it. I don't have that right in front of me.

Mr. DEFAZIO. Right. I mean, we are pretty explicit. And it really shouldn't take more than 90 days. I was just informed that United had theirs in at the first—in January. So I don't want this to—you know, it is some low common denominator out there dragging this out unnecessarily.

And then, on the secondary barriers, we asked that an order be issued. Essentially, it would be like a corrective action having something to do with the structure of the plane, or whatever. An order. But now we are going to go through a rulemaking or an advisory committee on secondary barriers.

What would happen if you just ordered the airlines to do it?

Mr. ELWELL. Mr. Chairman, even an order would require rulemaking, unless it was an emergency order, and——

Mr. DEFAZIO. Well, it could be an emergency order. We don't want to have another 9/11.

Mr. ELWELL. Well, sir, that—the process still requires rulemaking. Making changes to the interior of a 121 aircraft is an STC, a supplementary type certificate. That requires approval from the FAA. The FAA has to provide for all the carriers the standards and the performance requirements for the barrier, which, again, would normally entail rulemaking.

And we have to think about—these barriers have to cover everything from a 50-seat regional jet to a twin-aisle international carrier. And so there are serious things to consider, both on safety, on the manufacturer of these doors, what kind of doors——

Mr. DEFAZIO. OK, but—all right. That is good. I get that. But you do agree with what the law says. There is no question that the former chairman was incorrect in saying we meant new types, that we said "all newly manufactured aircraft."

Mr. ELWELL. New production aircraft. Yes, sir.

Mr. DEFAZIO. OK, that is good. And then, you know, the UAS rule at OMB—and perhaps Ms. Liu can answer—the trolls at OMB delay a lot of necessary things. This is a critical rule. How are they going to calculate their cost benefit when we haven't done a test yet on ingesting a drone. We don't know if it is going to cause uncontained failure and take the plane down, or whatever.

What are they using? What are the costs that are involved? There are no costs to the Government.

Ms. LIU. I don't think we can address directly the ingestion for an aircraft engine of a UAS, but the intent of remote ID is to actually allow for us to detect before you would actually have that encounter.

Mr. DEFAZIO. Right.

Ms. LIU. So there are benefits because of what we have seen already, and dispenses of resources to do the tracking for UAS. And I think it is more the benefit that we can find in allowing the new industry to operate in a safer manner than what we have been using, in some cases, manned aircraft. So——

Mr. DEFAZIO. Right, but I just don't know what OMB is dithering—for instance, last summer we had a bad fire summer. I had planes, the whole fleet of planes and helicopters, taken down because some jerk was taking photographs of the fire, and there was a drone in the restricted airspace.

I don't know how anybody can't find that there is a huge benefit. We have shut down airports when we have drones in the airport. There is no downside to this, correct?

Ms. LIU. And actually, those are accounted for in the cost-benefit analysis.

Mr. DEFAZIO. OK, thank you. My time has expired.

Mr. LARSEN. Thank you. I recognize Mr. Webster for 5 minutes.

Mr. WEBSTER. Thank you, Mr. Chairman. I would like to discuss an issue concerning the registration of an aircraft where a constituent of mine has gone through kind of a nightmare experience in trying to get his aircraft, which he purchased from the U.S. Marshals auction, and it was owned by a member of the drug cartel in Mexico.

So he tried to get it registered here. The FAA told him it is still registered in Mexico. "You are going to have to fix that." He tried to get that done.

As a matter of fact, you aided him in trying to do that, but the Mexican authorities just basically answered politely, "Your request is warmly received," but they have done nothing.

And there is no dispute over ownership, or anything like that. So the Mexican authorities, I think, are operating in bad faith. I mean, he hired a lawyer in Mexico. They told him that giving $150,000 and—"We will get your plane registered for you," which is a little steep. It is plain and simple extortion, something, I don't know, whatever you want to call it.

So the particular case kind of sheds light on a glowing flaw in U.S. policy, because it is questioning the sovereignty of this country, in a sense. There is clearly a negative impact on citizens if a foreign government could stop a United States citizen here of getting an aircraft registered. It is like some kind of hostage.

So anyway, I guess my question is what is the next step, if the Mexican Government continues to refuse to give him—or to de-register the plane in Mexico?

Mr. ELWELL. Sir, I have been apprised of this situation. And it is sort of a new area for me, and my understanding is that there are international agreements that don't permit us to register an aircraft that has a foreign registry. And in the past, this has been sort of a very quick thing done between state departments and the—and the ICAO agreement is met, because our State Department calls their state department, and the government in question says, "Yes, we release the registration, go ahead."

And for some reason, in this case, as you rightly described, the Government of Mexico is not doing what they normally do. So we are looking into it. We are talking to DOJ. We are talking to the State Department. And the intent is to get this resolved, sir.

Mr. WEBSTER. So you are committed to going to the highest level with the Mexican authorities to try to get this squared away?

Mr. ELWELL. Yes, sir, we will do everything we can under the current agreements and law to get to the bottom of this, so that your constituent can register the airplane.

Mr. WEBSTER. OK. Thank you very much.

Mr. Chairman, I would like to ask unanimous consent for the insertion of a letter into the record that goes to the issue that several have talked about, and that is the unmanned vehicle. So if I could do that, that would be great.

Mr. LARSEN. Without objection.

[The information follows:]

Letter of September 26, 2019, from Brian P. Wynne, President and CEO, Association for Unmanned Vehicle Systems International, Submitted for the Record by Hon. Daniel Webster

SEPTEMBER 26, 2019.

Chairman RICK LARSEN,
Subcommittee on Aviation,
House Transportation & Infrastructure Committee, 2113 Rayburn House Office Building, Washington, DC.

Ranking Member GARRET GRAVES,
Subcommittee on Aviation,
House Transportation & Infrastructure Committee, 430 Cannon House Office Building, Washington, DC.

RE: "A Work in Progress: Implementation of the FAA Reauthorization Act of 2018"

DEAR CHAIRMAN LARSEN, RANKING MEMBER GRAVES AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for the opportunity to submit this letter for the record for today's hearing on the Federal Aviation Administration (FAA) Reauthorization Act of 2018. My organization, the Association for Unmanned Vehicle Systems International (AUVSI), serves as the world's largest nonprofit organization devoted exclusively to advancing the unmanned systems and robotics community. More than 35 local AUVSI chapters in the United States and around the world advocate for policies at the state, federal and international level that will enable the tremendous potential of unmanned systems, including unmanned aircraft systems (UAS) or drones.

The passage of the FAA Reauthorization Act of 2018 (Public Law 115–254) was a major step forward for the UAS industry. This Act provides the entire U.S. aviation community with much-needed, multi-year stability and includes several provisions that will launch the UAS industry to new heights. Perhaps most importantly, Congress directed the FAA to implement remote identification (remote ID) standards, which will enhance the safety and security of the airspace by enabling the FAA to identify and track UAS flying in the airspace—in real time. However, the rulemaking process for remote ID has been delayed three times, with a proposed rule now expected in December 2019.

The need for remote ID cannot be overstated. Law enforcement needs remote ID to determine whether a drone is friend or foe, and to determine whether mitigation is necessary. The industry needs remote ID to advance expanded operations, including flights over people and beyond visual line of sight. That will help make operations like package delivery—and even autonomous air taxi service—a reality in the coming years. It is also critical for the realization of a UAS Traffic Management (UTM) system, which would work alongside the existing air traffic control system to reduce barriers to innovation and improve security of the national airspace.

While we await the rulemaking process, the industry is looking for ways to voluntarily provide remote ID on a tactical basis for certain situations. We are collaborating with our government partners through channels such as the FAA's Drone Advisory Committee to help inform this rulemaking. In addition, the FAA's UAS Integration Pilot Program (IPP) is collecting valuable data from state, tribal and municipal government partners, including research on remote ID. The 10 participants in this program, which will soon conclude, are also actively providing input on expanded operations, including low-altitude operations, and how they might impact their interests. We look forward to seeing the results of the IPP and how its research will help the FAA shape UAS policy going forward.

That said, identifying and tracking UAS in the airspace is just the first step. AUVSI supported granting additional authorities to the Department of Homeland Security and the Department of Justice as part of the FAA Reauthorization Act of 2018, including the authority to deploy appropriate countermeasures against UAS that threaten security. It is also important to note that Congress gave limited authorities to the Departments of Defense and Energy in the 2017 National Defense Authorization Acts. In addition, Section 2209 of the FAA Extension, Safety and Security Act (Public Law 114–41), which was also adopted in the FAA Reauthorization Act, created a process through which state and local government entities can petition the FAA to prohibit or restrict the operation of a UAS in close proximity to a fixed-site facility, such as critical infrastructure. UAS mitigation technology has already been successfully deployed at major events such as the Super Bowl.

The FAA Reauthorization Act also called for rulemaking on a UTM system, which will reduce barriers to innovation and improve safety and security for all aircraft—both manned and unmanned. AUVSI members have partnered with government to advance UTM concepts, beginning with Low Altitude Authorization and Notification

Capability (LAANC). However, the ability to track and identify all users of the airspace is a necessary requirement for low altitude traffic management. As stated earlier, before a UTM system can be realized, remote identification standards must be in place.

Finally, the importance of safety cannot be overlooked. We were pleased that the FAA Reauthorization Act of 2018 authorized $1 million to the Know Before You Fly education campaign, which AUVSI and the Academy of Model Aeronautics co-founded in partnership with the FAA. Funding for Know Before You Fly will help raise awareness of the changing regulatory environment around UAS and thereby increase compliance, enhancing the safety of the national airspace.

In addition, the FAA plans to mark the first-ever National Drone Safety Awareness Week in November to further stress the importance of safe and responsible UAS operations. This nationwide event will focus on the safety of several different sectors of the UAS industry, including public safety, photography, agriculture, infrastructure inspections and package delivery. It will also stress safety for recreational users and those flying UAS for educational purposes to get students excited about Science, Technology, Engineering and Math (STEM) careers. This multifaceted approach will help build a culture of safety among operators that will further deter careless and reckless behavior.

AUVSI greatly appreciates your important work to ensure the successful implementation of the FAA Reauthorization Act of 2018. We would be happy to address any questions you may have about its UAS provisions going forward.

Sincerely,

BRIAN P. WYNNE,
President and CEO.

Mr. WEBSTER. I also have sort of an issue there, too; you brought it up, and others did.

I am a district where there are parks, theme parks, bunches of them, big ones. They are worlds, in some cases. There is real concern about that in that area, too, and how they are going to be able to proceed; even some of the smaller parks, really, have more concern how they are going to proceed in getting some sort of ability to stop UAS activity in proximity to their parks. So I just throw that in to say I am in on whatever we can do to speed that up. I know twice it was in one of our reauthorization bills. And anyway, it would be good to get on it.

I yield back.

Mr. LARSEN. Thank you. Mr. Lipinski is recognized for 5 minutes.

Mr. LIPINSKI. Thank you, Mr. Chairman. A lot have talked about the delays in rulemaking. The reason why it is important to be concerned about delays is because we are talking about, first and foremost, safety. And I know Chairman DeFazio and others have talked about the secondary cockpit barrier, the 10-hour rest rule for flight attendants. And so a delay in rulemaking is a delay in safety.

You also have quality of life issues that we are talking about here, both for people who fly and those who live around airports. And I am going to have a question about that.

And you also have delays in technology, which hurts the United States.

And the remote ID rule has to do with safety, first and foremost, but it also has to do with the advancement of UAS, and that impacts jobs in this country. We want to be the leader in innovation in all areas.

But I want to start out asking, you know, on the technology side. I included a provision in the FAA reauthorization section 192 for R&D demonstration projects for zero-emission technology. And I

wanted to ask what the FAA has been doing to implement this program. It is advanced technology, zero emissions, obviously, something important, looking at protecting the environment.

And is there anything that, Mr. Elwell, you can tell me about this?

Mr. ELWELL. Mr. Lipinski, I am not immediately familiar with the section that you are asking about. I will certainly get back to you, if that is OK, with a detailed response.

I will tell you that innovation is a major priority for Secretary Chao, for the administration, and for us. In fact, one initiative that we are trying to effect within the FAA is to create an Office of Innovation whose charge would be to take in new technologies and assimilate them into our culture quicker than we currently do.

Technology today moves, as we all know, so much faster than it did a few decades ago. And the FAA and aviation were slow to begin with, as you point out, because of our safety concerns. But anything that we can do to, on the R&D side or on the operational testing side, anything we can do to accelerate innovation, especially as fast as it is moving, I am all for that, sir.

Mr. LIPINSKI. And I look forward to hearing about section 192, what you are doing, and also what you are talking about in terms of innovation and what we can do to be helpful on that.

I wanted to move on to a quality-of-life issue. I have Midway Airport in my district; everyone loves Midway Airport for the economic engine that it is. But everyone hates the noise, obviously. And this is a 1-square-mile airport that has houses on all four sides. So section 188 required a report on the day-night average sound levels, the DNL. So when can we expect the report to be completed on that?

Mr. ELWELL. Well, sir, the section asking for a report on DNL, I am not sure I can give you a date on the completion of that report.

Mr. LIPINSKI. Well, I appreciate you——

Mr. ELWELL. I will have to get back to you on that, sir.

Mr. LIPINSKI [continuing]. Getting back to me on that. I was wondering if there is—you have any expectation that the—you know, it is currently at 65 decibels—if it could be maybe lowered after this comes out, the report comes out.

Mr. ELWELL. Sir, actually, we are going to get that DNL report out before the end of the year.

Mr. LIPINSKI. OK, thank you. It has been an issue with NextGen and new technology. There have been increases in noise levels in certain areas around airports. And this is something that I would like to talk more with you about, and we need to continue to work, because this has been a major issue for many people who live not just around Midway Airport in my district, but O'Hare, just outside my district, and across the country.

So thank you, I will yield back.

Mr. LARSEN. I recognize Mr. Mitchell of Michigan for 5 minutes.

Mr. MITCHELL. Thank you, Mr. Chair. The FAA Reauthorization Act contained, as we have already discussed, numerous mandates and expectations for the FAA for implementation of changes.

One of the biggest challenges we had in the reauthorization was the discussion about NextGen, how it should be structured, moving

it forward. It is no secret the air traffic control system is—it has antiquated equipment, some procedures as a result, and needed improvement. How we got there was a significant discussion. We came to a bipartisan agreement. Over the past few years we spent billions of dollars and countless hours. We recently had an update on NextGen, which was really helpful.

We don't have to rehash the details of how we got here, but I do want to talk about one provision. In the bill we included section 547, the enhanced air traffic services provision. The amendment, described briefly, required a creation of a pilot program to demonstrate the full promise of NextGen technologies, to designate certain airports to provide limited access for planes that have full NextGen technology, and to demonstrate the benefits and the cost savings as a result of that—and the safety improvements, to be honest with you. A report to come back to Congress.

There was a timeframe then of 90 days. We talked a little bit before the hearing. I would like to get an update. I think we would all like an update of where we are at on that pilot program, and when we expect that to move forward.

Mr. ELWELL. Well, thank you for that question, Mr. Mitchell. And this is a project that we have a lot of energy behind, and three airports to do enhanced air traffic system testing—I believe it is for 3-hour blocks, continuous 3-hour blocks in the day.

And the NextGen Advisory Committee, who has been tasked—and, as you know, that is the committee of all the stakeholders invested in NextGen—to give us their recommendations, and they have promised us the airports recommended by spring of 2020. And then we will do a 2-year pilot program on the enhanced air traffic services from 2021 to 2023.

Mr. MITCHELL. So we don't expect any further progress until—any definitive progress until spring of 2020?

Mr. ELWELL. Yes, sir, and 2020 is when we will have the airports named.

Mr. MITCHELL. Will it be at three airports, or five? Do you have an idea? Because we——

Mr. ELWELL. The current——

Mr. MITCHELL. We required three. You were talking maybe more. Is there a——

Mr. ELWELL. So it is currently three. But, sir, I will take that back to the NAC, and we will look at the possibility of increasing that, because I think it is a very valid and worthwhile program to be able to look at what full equipage—to your point—full equipage, what will it do to efficiency at any airport.

Mr. MITCHELL. I mean I think the—and your report, I would ask that not just efficiency, but also in terms of its impact on safety.

Mr. ELWELL. Right.

Mr. MITCHELL. Because of your ability to route aircraft, and separations, and all those far more accurately using that type of system, so that report would be helpful and important as we move forward.

Mr. ELWELL. Yes.

Mr. MITCHELL. So I encourage implementation of that as timely as we can.

Mr. ELWELL. Yes, sir.

Mr. MITCHELL. Let me change gears a little bit. I share Chairman DeFazio's concerns about evacuation. The reauthorization contained a couple of mandates that I think are important.

Establishing minimum dimensions for passenger seats on air carriers—and it will surprise you to know I am not exactly a dainty guy. I want you to look around the room. There are a lot of not-so-dainty people. Seat size, dimensions between seats, exits—I am not sure that the models that are being used, to be honest with you, really reflect current air travelers, certainly not in the United States, North America, at 6′2″ and 240 pounds or so, you know.

Where are we at, in terms of moving forward? Because we mandated establishing minimum dimensions for passenger seats, evaluating the evacuation procedures and time. That could become pretty critical. Can you advise us on how we move forward on that? Because, besides whether or not I cram my backside in a seat, getting out would be a really useful thing. So could you update us?

Mr. ELWELL. Yes, and thank you for that question, Mr. Mitchell. We are looking at the language. We are thankful that Mr. Cohen's provision asked us to look at seat size and seat pitch and seat dimensions—and, obviously, in the construct of safety, which is what our mandate is.

We are going to perform testing for this section, including human testing. And later this year we are going to establish the necessary seat pitch, width, length, based on safety, which would be the basis for any rulemaking if we——

Mr. MITCHELL. Let me stop you if I can, because he is going to hit the gavel in a minute. Is there a timeframe on when you are going to do that testing, and when we are going to get some feedback?

Mr. ELWELL. Yes, Lirio, do you have an update on the timing of it?

Ms. LIU. Pardon me.

Mr. MITCHELL. No, it is——

Ms. LIU. I understand it is supposed to occur before the end of the year. We have set up the Aviation Rulemaking Advisory Committee, as well, and—ARAC—that is also going to look at the evacuation study. So taking all that data in, we will be able to determine the appropriate——

Mr. ELWELL. And——

Ms. LIU [continuing]. The rule.

Mr. ELWELL. I will just add we have 12 days of testing planned in November, with 720 live bodies, and the collection of 3,000 data points.

Mr. MITCHELL. He likes that gavel, but that is——

Mr. ELWELL. I heard the gavel, thank you.

Mr. MITCHELL. Thank you very much. I do yield back, sir.

Mr. LARSEN. You were doing so well, Mr. Mitchell.

[Laughter.]

Mr. LARSEN. Mr. Cohen for 5 minutes.

Mr. COHEN. Thank you, Mr. Chair.

And first, Mr. Mitchell, I appreciate your questioning.

And I rue your absence from the Congress, because you have been such a good Member. But I understand your logic, and I commend you on it.

In the last Congress we passed the FAA Reauthorization Act, and I sponsored, as Director Elwell has mentioned, along with Representative Adam Kinzinger, the SEAT Act, which mandated that you provide us within a year, for safety purposes, pitch, width, the whole rigamarole with seats. And yet we don't have it.

Tests in the past have been done with computers, and I think their computers—if I am not totally incorrect, I think they were provided by the airline, or the manufacturer, and they were simulations provided by them.

We don't need to have another crisis like we had with the Boeing airplane, that we have a crash and we come back and we have to ask the FAA, "People couldn't get out of the plane in 90 seconds, why did you not comply with the SEAT Act?"

So tell me again why this hasn't been accomplished. We are almost a year. And if it is going to be human conditions to where you have got people Mr. Mitchell's size, Mr. DeFazio's size, Mr. Trump's size——

[Laughter.]

Mr. COHEN [continuing]. All in coach class, trying to get out of a plane in 90 seconds. Are you going to have those people?

Mr. ELWELL. Sir, we are. We are looking at it. Obviously, as Chairman DeFazio said, Americans are getting bigger. And so seat size is important. But it has got to be looked at in the context of safety, and that requires testing.

And to answer Chairman DeFazio's earlier question, the most recent live full air evacuation testing was actually done in 2018, not 20 years ago. It was the Airbus 350. So we have done it.

And, despite what——

Mr. COHEN. Well, you did this test with the Airbus. Was that done here, or in Europe?

Mr. ELWELL. I am not—it was done in Europe. We also did it. Our most——

Mr. COHEN. Why has not the FAA done it in America, with Americans? We are widening out more than Europeans. They are doing vegan, multigrain, and eating fruit. We aren't.

Mr. ELWELL. Sir, we did—the 787, 777 were the most recent times we have done live testing. And, as I said, we are lined up to do 12 days of evacuation testing in November with 720 people. We are going to collect 3,000 data points.

But one thing—I want to allay your concerns a little bit. In the most recent examples of full-hull loss accidents, 100 percent evacuation.

Mr. COHEN. Within 90 seconds?

Mr. ELWELL. Asiana in San Francisco, Aeromexico in Mexico——

Mr. COHEN. Were they done within 90 seconds?

Mr. ELWELL. I can get back to you on whether it happened in 90 seconds. But survivability today is much, much better, due to a lot of great work that we do at the Tech Center in New Jersey, and great improvements in flammability and survivability.

But you are right; we need to do testing on evacuation, and we are going to do live testing, and we are going to get you an answer on seat pitch as it pertains to safety, sir.

Mr. COHEN. And where are you going to get these people? You are not going to go to SlimFast, are you?

Mr. ELWELL. Sir, we are going to try to use a good demographic sampling. And we will maybe invite you.

Mr. COHEN. It would be good to invite me, because I have got a bad leg. And you have got people in this country who are larger, but you have also got people with disabilities who fly.

Mr. ELWELL. Yes, sir. Yes, sir.

Mr. COHEN. And you need to have a representative sample. And you have got, you know, children, and whatever.

Mr. ELWELL. Oh, so we do incorporate all of those things: lap children, animals. We incorporate all of that, and we will in the testing.

And I don't know, Lirio, if there is anything I have missed on how we do that testing.

Ms. LIU. I can reflect back on that from my certification days.

Yes. In fact, when we simulate the test during certification, we will actually block half the exits. It will also be in a dark environment. The attendants that are on the evacuation test don't know which exits are blocked, to simulate a live situation.

The demographics are typically volunteers from anyone, so there is no specific demographic sought for.

So, as you will see, it will also be dark in the cabin, so they try to simulate the worst-case scenario.

Mr. COHEN. Thank you. If you would invite me, I would love to be at least an observer. And if you pick Democrats, you will get a good representative demographic of America.

Mr. LARSEN. Mr. Gallagher is recognized for 5 minutes.

Mr. GALLAGHER. I have much less exciting—dare I say dainty—questions to offer.

But Northeast Wisconsin Technical College, which is located in Green Bay, Wisconsin, is concerned about the implementation of section 631, a program known as the Community and Technical College Centers of Excellence in Small Unmanned Aircraft System Technology Training.

This program was intended to help community colleges like NWTC extend their role in education and training for small drone technology. It seems like a good idea. But Northeast Wisconsin Technical College reports there hasn't been much progress made to implement this program, even though it was created with a deadline of 180 days after the enactment, which should have been April 5th, 2019, if my math is correct.

So I would ask what is the current status of establishing a process to designate community colleges' UAS Centers of Excellence?

Mr. ELWELL. Thank you for that question, Mr. Gallagher. We did briefly mention section 631 a little bit earlier. One of the issues is that the way this provision was presented, it was with Centers of Excellence, which are not grant programs, they are not grant recipient programs. So we are working through that. And I told Chairman Larsen we will work through the wording issues, so that we can get this done. I am a huge proponent.

I was recently up at Vaughn College, which is a CTI college for controllers, and had a wonderful conversation with a student, a young lady who is a dynamo aviation enthusiast, and is going to graduate in the spring with $86,000 in debt.

So you know, if we are going to excite young people into this profession, both for Government service and in industry, we have to get a handle on this, and we got to get them trained.

And I agree with you, 100 percent. I know that section 632, which is related, we hope to have that done by the end of the year. And it is going to certainly help community colleges specialize.

So we understand the need, sir. And I hate to talk about technicalities, but we are going to work through them.

Mr. GALLAGHER. Well, we often find ourselves dealing with technicalities here.

Can you give us a flavor—and I don't know if it is—who—which one of you two would address just kind of what the consultation that has taken place between FAA, Department of Transportation, Education, and Labor, all the other interagency players in this, on section 631?

Or, perhaps more broadly, do you feel like there is interagency buy-in to the program?

Mr. ELWELL. So I am not aware of an interagency discussion on section 631. So—and I am not sure it is required, if it is a program that we can implement and do.

I am just advised from—the language has been a problem, and—but I certainly will get to interagency discussion if we have to do it, and we will use it.

I know that, you know, last year around this time we had a workforce summit at National Airport, where we did have all the—we had the Air Force Secretary, we had Secretary Chao, we had Department of Labor, Department of Education all coming together to come up with solutions on these workforce issues.

So it is a high priority of ours, and we will get back to you on the work—and if there is anything that you can do, we certainly won't be shy to ask——

Mr. GALLAGHER. Sure.

Mr. ELWELL [continuing]. How you can help, sir.

Mr. GALLAGHER. I really appreciate that, and look forward to working with you.

Final question. So, for these colleges, technical colleges, you know, a college like Northeast Wisconsin Technical College, who want to be forward-leaning, they want to take full advantage of section 631, I mean, what advice would you have for them right now?

Mr. ELWELL. Well, first of all, I think getting the CTI accreditation, 2-year programs will suffice for that. Get recognized as a preferential—controllers do preferential hiring. It is a separate pool. If they come from a CTI school, I think that is an incentive unto itself.

And then the extent to which a college can be eligible for assistance, Federal assistance, that is the issue that we need to look into and get back to you on.

Mr. GALLAGHER. I appreciate that. I think we have an opportunity here. I mean there is a lot of bipartisan goodwill around the idea of elevating our technical, our vocational schools. And this would seem to be a growth industry and an industry that could attract the attention of a lot of millennials and whatever we are calling the generation that is younger than millennials these days.

So I appreciate it.

Mr. LARSEN. Thank you, Mr. Gallagher. Before I go to Representative Craig, just in order we have, on the Republican side, Balderson, Rouzer, and Perry. And then, on our side, Craig, Davids, Carbajal—so to get people prepared.

So I recognize Representative Craig for 5 minutes.

Ms. CRAIG. Thank you so much, Mr. Chairman. It is absolutely clear that our communities who are near our airports have benefitted from the employment opportunities and convenient access to domestic and international travel. But those who live around those major airports also live with the burden of often overwhelming overhead noise, especially as the number of flights around the country continues to increase, and their flight paths become more streamlined and precise.

Where I live in Eagan, Minnesota, we are severely impacted by aviation noise, and the city has recently taken the opportunity to come up with some measures to address and mitigate these issues, which I applaud.

Although I wasn't in office for the passage of the 2018 FAA reauthorization, I am encouraged by many of the provisions that address these noise concerns and problems, nationwide.

Mr. Elwell and Mr. Szabat, I would like to ask you a few questions on the status and intended outcomes of a few of those provisions, if you don't mind.

Section 189 instructs the FAA to conduct a study on potential health and economic impact of overflight noise. You formally entered into a partnership for this research, which is a great first step.

Can you tell me a little bit more about the parameters of this study, and how you are weighing the effects of noise on children and families like our city in Eagan?

Mr. ELWELL. Thank you for that question, Ms. Craig. We have entered into an agreement with MIT and Boston University on the commencement of that study, and I can get back to you on the parameters and what the agreed parts of that study are with MIT and Boston University.

Ms. CRAIG. Mr. Szabat, anything to add to that?

Mr. SZABAT. Representative, thank you for the question, but no.

Ms. CRAIG. Thank you. So section 175 is titled, "Addressing Community Noise Concerns," and it effectively compels the FAA Administrator to shift flight take-off and landing patterns if an airport operator and community jointly make a reasonable and safe request to do so.

The city of Eagan is currently urging this consideration with the Metropolitan Airports Commission. As a Member of Congress, how can I be supportive of my constituents during this process? What more can my constituents do to raise their voices on issues related to noise concerns?

Mr. Elwell?

Mr. ELWELL. Well, community engagement is critically important. We understand that. We are refining and improving our community engagement.

We have our naming noise ombudsman at all of our regional offices. Those noise ombudsmen will report directly to the regional administrators. In your case, I believe that would be Great Lakes.

And community engagement, across-agency engagement led by the regional administrators and the ombudsmen, is critically important.

The goal, of course, is to engage, listen, as you said, and make adjustments as necessary. And there are quite a few communities around the country where we are doing that.

I would say just a couple of data points on noise that I found intriguing.

In 1970 there were 200 million passenger enplanements, and 7 million people subjected to significant noise over the 65 DNL. Today we carry 900 million enplanements, and 400,000 people are subjected to noise above 65 DNL.

We acknowledge this is, for your constituents and many others, a critical issue, and we are engaging it. But I will tell you that both in engine design, aircraft design, and procedural design there are huge advances being made in getting aviation quieter. But there is more we can do, and we are anxious to engage with the communities and all the stakeholders to see how we can make the air quieter above your constituents.

Ms. CRAIG. Thank you so much. I appreciate the thoughtful answer you gave, and I hope you will also be given the opportunity to review the very thoughtful recommendations from the city of Eagan. So thank you so much.

And, Mr. Chairman, I yield back my time.

Mr. LARSEN. Thank you. I recognize Representative Balderson for 5 minutes.

Mr. BALDERSON. Thank you, Mr. Chairman. And thank you, panelists, for being here this morning.

Mr. Elwell, I will direct my first question to you, and just kind of follow up what Mr. Gallagher was referring to with workforce development. That is something that is very important.

But what is the FAA doing to improve the aviation workforce pipeline? For the pilots I know there is an extreme shortage for the pilots, projected that there are going to be 790,000 pilots short by 2037. So what are you all doing for that pipeline?

Mr. ELWELL. Thank you for that question, Mr. Balderson. As I referenced, the workforce summit—I think in the day-long summit we had maybe five different panels that covered the gamut.

We do anticipate a pilot shortage in the coming decade, but it is not just pilots, it is all of the technical fields in our sector. And, you know, it is not a mandate of the FAA to ensure a large pilot population, but we do believe that a shrinking pilot demographic is not good for the system and, ultimately, probably not good for safety.

So, what we are doing is we are engaging. We have a workforce task group within the FAA. It is engaging many different organizations: Women in Aviation, for instance; the Aircraft Owners and Pilots Association, AOPA; all of the sort of groups that represent interest in our sector.

The Air Force Junior ROTC, they came to the FAA and said, "We are trying to do a program where we take kids after their sopho-

more year in high school, send them to a university"—I think Auburn is one of them that they contracted with. "We take a kid coming out of 10th grade who doesn't even know what an airplane looks like, and by the end of the summer they have their private pilot's license. But FAA, you have a restriction of 17 years old to get a private pilot's license. Can you work with us to get it back to 16, so we can get those kids before they commit to some other profession?" These are the kinds of engagements we want to have.

It was mentioned already, Women in Aviation. Women are woefully underrepresented in our sector, and I think that is a huge demographic in population that we should be creating interest for for this industry.

We have an MOU with the Air Force to look at their pilot training research. They are doing some very, very interesting things in pilot training that we think can be mirrored in the civil sector.

So this is a huge initiative. We are anxious for any and all ideas and help that we can get, because we know that this committee is as passionate about this as we are. And we are ready, willing, and able to engage on how we can improve the workforce, the strength of the workforce.

Mr. SZABAT. And, Congressman, if I can just tag on for a minute in support of Mr. Elwell's comments, this is something that matters to the Department, as a whole, as well as the Federal Aviation Administration.

Secretary Chao herself kicked off the Forces to Flyers initiative, so working with the Air Force and elsewhere in the military to ensure the transition for pilots, for other qualified aviation personnel to move to the civilian sector.

Dan has also mentioned Women in Aviation. As part of that, the Department is working through the Department of State internationally, APEC, the Asia-Pacific Economic Cooperation. We are working for a Women in Aviation prioritization within all of the countries that border on the Pacific.

Mr. BALDERSON. Thank you. And I will follow up, and both of you may answer this question, also. Do you believe the FAA currently has the necessary resources to take on the pilot shortcomings?

And I know you said reaching out to—my office would love to communicate with you all of—giving you leads, or some way of—not necessarily leads, but how you can—we can make it, you know, so you can attract young adults. And whether that is—I have a very good friend of mine, and his son is finishing his private pilot's license right now, and he is—you are correct, he is 17 years old. He probably could have started flying earlier than that. Not much, but we would love to work with you in ways to change that.

So thank you both very much for your response.

Mr. SZABAT. Thank you, sir.

Mr. BALDERSON. I yield back, Mr. Chairman.

Mr. LARSEN. Thank you, Representative Balderson. I recognize the vice chair of the subcommittee, Representative Davids of Kansas.

Ms. DAVIDS. Thank you, Chairman, Ranking Member, and thank you to the witnesses for coming here today. I appreciate your time and your expertise.

I wasn't here when we passed the reauthorization previously. So I am hoping for just a little bit of insight. So my first question is for Deputy Administrator Elwell, who—I know you have been here before. Welcome back in your new role.

There has been a troubling number of media reports about passengers and crews falling ill, or becoming sick because of cabin fumes and air quality in the cabins. And I am hoping to hear from you briefly about how the fumes and smoke might even make it into the plane for folks who don't already know that.

Mr. ELWELL. Thank you for that question, Ms. Davids. We are working toward completing all the requirements that are included, including engaging with stakeholders on useful education materials—this is all parts of what was in the bill—useful education materials, developing reporting guidance for carriers, reminding carriers to use their SMS, their safety management system, to identify issues—that is what SMS is for, it is what it is all about, to identify issues—and share with crew, their crewmembers and their technicians, and engaging—we are engaging in the research of bleed air.

You know, when it comes to cabin air issues, it often comes down to the bleed air, what is coming in the cabin to pressurize the cabin from the outside, and the refresh rate, you know, the recirculation rate. So we are looking into it in all the areas that the bill mandated.

And I—if it is OK, I would like to check with Lirio to see if you can expound on that.

Ms. DAVIDS. That would be great.

Ms. LIU. It is part of the certification requirements of the aircraft that right now——

Ms. DAVIDS. Will you—oh, thank you.

Ms. LIU. I don't know that I have anything more to say on that. I think it is under research. We have the appropriate working groups starting the process, and using the data, as was indicated by the Deputy Administrator.

Ms. DAVIDS. And actually, that is a great point to hit a followup question I had, which is I know that there were a number of requirements in the reauthorization, and commissioning a study was one of those requirements. And it seems as though that has been something that has been delayed.

So I am curious if you could give maybe a progress update on what kind of research you have been able to do into—if I have the language correct, it is to assess the potential health effects of the contaminants from bleed air, which you mentioned, and—yes, any other updates you might have around that.

Mr. ELWELL. Yes, ma'am. We have begun that process, begun that research and that testing. And I remember reading through it, but I will have to get back to you on the details of that research. But I am—oh, getting a note.

Ms. DAVIDS. Oh, I love this.

Mr. ELWELL. Yes, yes, so we are actually meeting next week with the stakeholders and the participants, and we will get back to you, ma'am, on exactly what we are doing in that area.

Ms. DAVIDS. That would be great. I, of course, am very concerned about passengers, and I am very concerned about all the folks who make their livelihoods spending time on planes.

So thank you for your time, and I yield back.

Mr. LARSEN. Thank you. I recognize Representative Rouzer for 5 minutes.

Mr. ROUZER. Thank you, Mr. Chairman.

And I want to thank each of you for being here this morning. As you know, my home State of North Carolina is one of the nine participants in the FAA's UAS integration pilot program, and their focus has been on routine drone delivery of medical packages. And, so far, there have been more than 1,200 operations on the WakeMed Hospital campus there, in Raleigh.

Now, this is the first routine drone medical package delivery operation for compensation in our country, and a significant step forward for faster and easier delivery between medical facilities.

Can you speak to how the data gathered from this pilot program is helping the FAA find solutions to—or restraints on integration within the current regulatory framework, such as restrictions on flying beyond visual line of sight, or flight over people? How are these efforts coming along?

Mr. ELWELL. Well, thank you for that question, Mr. Rouzer. The UAS implementation integration pilot program specific to your district has been a huge success, as you mentioned. The delivery on campus back and forth has greatly expedited the delivery of samples which, of course, in turn, gets results quicker for patients.

I understand—I am told that—I think UPS is going to try to operationalize that, much the way Google Wing has operationalized their IPP project in Blacksburg, Virginia, to do deliveries.

And what the IPP has done—the project in North Carolina and in Virginia and at seven other pilot projects around the country—has given us the data we need to start certifying these operations for eventual integration.

Google Wing, for instance, went through a part 135 certification, and it was unprecedented, it hadn't been done before. We did it for that drone operation to prove that we can use our regulatory structure that exists today, and modify it for UAS operations.

We have about a year—a little bit more than a year—left in the study, in the pilot program for the nine different projects. We are going to take the lessons learned—and they are many—and that, tied to rules like remote ID, eventually will get a beyond-visual-line-of-sight rule, over people rule.

These are not easy tasks, by any stretch. But putting them together, we will be able to integrate drones safely into the airspace.

And our goal also is that, when this pilot program rolls up, we are not going to tell the nine participants, "OK, thank you very much, go home." The idea is to allow those that wish to stay and operationalize their programs, our goal is to help them do that.

Mr. SZABAT. And again, if I may add to the Administrator's comments, Congressman, from the Department of Transportation's perspective, what the IPP allows is, insofar as it is possible for a regulatory agency to become a cutting-edge regulator, this is allowing us to be on the cutting edge of developing regulations, as Dan men-

tioned, integrating drones safely into our manned national airspace.

Other countries are experimenting, as we are. But what they are doing is mostly on a catch-as-catch-can and exception basis. We are trying to develop this systematically, so that we can actually have the regulations in place based on these pilot programs that will allow us to give, for example, more part 135 certifications so whatever lessons we learned can be applied nationally.

Mr. ROUZER. Talk about the role of local and State government, and the interface there, and how that will operate.

Mr. ELWELL. So that was in the Presidential directive of something we wanted the IPP—the nine different programs—to examine. federalism versus preemption.

And it is a great question, because what we don't want to foster are hundreds of different regulatory frameworks that the industry would eventually have to comply with. You know, if I am in this county I have got to do this.

But at the same time, we have to strike that balance to allow localities—localities know their issues better than—obviously, better than the Federal Government. So we got to strike that balance, to your point, to allow municipalities, States, Tribal organizations the ability to make restrictions that don't challenge federalism, but are good for the community, good for the industry, but ultimately safe for all the participants.

And we are learning a lot from the pilot program in that regard.

Mr. ROUZER. What about sharing of radar feeds? Do you anticipate FAA to share radar feeds at a local and State level?

Mr. LARSEN. Yes or no?

Mr. ELWELL. No.

Mr. LARSEN. I didn't hear the question.

Mr. ELWELL. Sir, I am sorry——

Mr. LARSEN. You will have to take it for the record.

Mr. ELWELL. OK. We will get back to you, sir.

Mr. ROUZER. Thank you, Mr. Chairman.

Mr. LARSEN. You are welcome. Next we have Mr. Carbajal. Before Representative Carbajal starts, on our side it will be Carbajal, Stanton, and Lynch, in that order. On the Republican side it will be Perry, Katko, and Stauber, in that order.

Representative Carbajal for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chair.

Administrator Elwell, thank you for coming to our subcommittee today, and for giving us an update of this FAA Reauthorization Act of 2018.

Building on some of the questions by my colleagues regarding colleges, college Centers of Excellence, section 631 of that measure authorized a new program known as Community and Technical College Centers of Excellence in Small Unmanned Aircraft System Technology Training. This section is intended to help establish an expanded role for community colleges in education and training in various applications of small drone technology.

In my district Allan Hancock College is a community college that is focused on innovation, and has the interest in the section 631 Centers of Excellence program. The college is located on the site of the former Hancock College of Aeronautics, which opened its doors

90 years ago, and trained thousands of pilots for service during World War II. Section 631 provides opportunities for a school such as Allan Hancock College to work with industry partners to train students in the latest applications of drone technology.

April 5, 2019, was the deadline for the FAA to have established a process to designate community colleges UAS Centers of Excellence. Could you update this subcommittee on the status of section 631 for the Centers of Excellence program?

And two, what type of consultation has taken place with the Departments of Education and Labor to develop this program?

Mr. ELWELL. Thank you, Mr. Carbajal, for that question. In the discussion earlier with Mr. Gallagher, we have no issue with the intent, nor the deadline. The problem we ran into, ultimately, was that Centers of Excellence are not—we have many Centers of Excellence agreements, but they are not vehicles for grants.

So I would love to see a lot more small colleges get help with providing UAS training. And so would Secretary Chao. That was one of the key conversations we had in our workforce summit last year around this time.

I will commit to get back to you, sir, on the engagement that we have had with DOL and DOE, and the extent to which we have brought them into the discussion. And if we need to expand that interagency discussion, we will certainly do that.

The goal is to improve and increase and energize our secondary education in these fields. And so I commit to work with you and the other agencies as necessary.

Mr. CARBAJAL. To that end, how could schools such as Allan Hancock College prepare for future consideration of this section's benefits?

Mr. ELWELL. I think a desire to have curricula that address these emerging technologies is preparation enough. I think it is incumbent upon the Government entities to facilitate, and certainly not to provide any sort of hindrance to those who are willing and want to bring that into their curricula.

You know, one of the things that we have at the FAA is accreditation for aviation schools. We have 4-year accreditation, 2-year accreditation. And we are trying to advertise to young people that, you know what? Education is expensive. But you can go to a 2-year vocational tech school in the aviation world, and come out with really good careers, really good professions, and I am sure that, as the UAS industry grows, there will be more and more opportunities in that area, as well.

Mr. CARBAJAL. Thank you. As was discussed by some of my previous colleagues, I too have been contacted by a number of my constituents about airplane noise. And the FAA reauthorization included several provisions to address this issue.

What is the estimated timeframe for the FAA to implement these mandates? And how is the FAA working with communities like mine to address these issues?

Mr. ELWELL. Well, sir, there is—noise is a huge issue, nationwide. And we are actively working all of the provisions in the bill. We have every intention of meeting all the requirements.

Since they are different, a number of different provisions and different requirements, different lengths of implementation, I can as-

sure you, sir, that we are working all of them, and we have every intention of meeting the requirements of the bill.

Mr. CARBAJAL. Since I am out of time, if you could just get me some timelines, that would be great.

Mr. ELWELL. I will get back to you on the timeline, sir.

Mr. CARBAJAL. Mr. Chair, I yield back.

Mr. DEFAZIO [presiding]. Before I recognize Representative Perry, I just want to clarify the record. The last time the United States conducted a full-scale evacuation was 1999 for the 777. And then Boeing based their certification on the 787, through comparative analysis, to that. And I don't know whether EASA requires it or not, but Airbus, you know, did that in Europe, and not under our auspices.

And then, finally, in terms of recent incidents, a number of people died on an Aeroflot plane who were unable to evacuate. We don't know all the circumstances here, since it took place in Russia.

Anyway, Mr. Perry?

Mr. PERRY. Thank you, Mr. Chairman.

Administrator Elwell, the provision that I had placed in the FAA bill required the FAA to update existing regulations to authorize the carriage of property by owners of UAS for compensation or hire. In your testimony you state, "This work is ongoing, and the FAA is currently meeting the intent of the mandate through an exemption process."

I am pleased to see the FAA grant the first certification this year, but it came only after a long and arduous process of seeking numerous exemptions from part 135 provisions that do not and cannot apply to UAS.

Avoiding this type of unnecessary drawn-out and burdensome exemption process was actually the intent of the mandate. The deadline to update these rules is October 5th of this year, 9 days from now. But we have yet to see any FAA action on this mandate, so it doesn't appear that this deadline will be met.

Can you just provide us with a status update on the mandate, and a new timeline for meeting it, if you have one?

Mr. ELWELL. Yes, Mr. Perry, thank you for that question. The desire to have UAS perform those certificated activities we share. We share the goal to get that done.

It is important to point out there is frustration, how long this is taking. But I think what we need to understand is, unlike a lot of other countries that are trying to integrate—or trying to fly UAS and get UAS to do things, many other countries are doing that segregated. They are taking UAS, and they are flying UAS in airspace where there is nothing else.

We are integrating UAS, and it is a far, far more complex endeavor. Some of the activities you mentioned, sir, would require beyond-visual-line-of-sight carriage, or over people. And these are rulemaking activities that have significant safety implications, and we have to make sure that we do the rulemaking for those specific abilities, the ability of an unmanned aviation vehicle to fly over people or beyond visual line of sight. These are very complex.

And both of those capabilities, which would eventually be needed for commercial activity, rely upon remote ID, which we have talked about is going to take a little while.

So I absolutely share your desire to see this happen. I think we are in a very, very dynamic time in aviation in this country, between the attempts to integrate UAS, the doubling of commercial space launches. I mean there is so much going on. But it is not going to be done as quickly as many would like, me included. We have to——

Mr. PERRY. Administrator, we get it, I am sure, and we know it is complicated. And at the same time, you know, also deadlines, suspenses, requirements motivate agencies, individuals, you name it, to get to a result, right?

I mean the Federal Government isn't immune to producing what is asked of it. Its bosses and my bosses, the taxpayers and constituents, demand it. They don't want to hear—they understand that sometimes things don't go as we wish they would, as we hope they could, or what have you.

But it doesn't sound like you have any idea—I hate to say it that way, but if you do, I mean—this was the timeline that we had. So I think it is fair to say that we are not going to meet it. But, you know, 6 months? One hundred years? What are we looking at?

Mr. ELWELL. Mr. Perry, the only real suspense in putting a new type of activity into the airspace, the only deadline the FAA really has, at the end of the day, is safety.

And I agree with you, placing a deadline out there does motivate people. But at the end of the day, if it can't be effectuated, if it can't be done and signed off on safely, it is going to be extended. And for that reason, you know, I always hesitate in these questions, "What is the timeline to do X or Y"——

Mr. PERRY. Well, I am not going to pin you down to a day or something, but can you give us some idea if this is years, if this is months?

You know, you try and meet a deadline, you find out what is in your way, and then you figure out what is it going to take to get through these six barriers, or three things, or whatever. You make a new timeline.

Mr. LARSEN [presiding]. I recommend you get back to Representative Perry with a timeline. Can you do that? Can you get back to Representative Perry and the committee with a timeline?

Mr. ELWELL. Yes.

Mr. LARSEN. I recognize Representative Stanton from Arizona for 5 minutes.

Mr. STANTON. Mr. Elwell, one of the key purposes of the Congress, of course, is to put the appropriate things into the law, and then to ask about the timelines for implementation. That is one of the key roles of the people up here on this dais. I appreciate the nature of your concerns about it, but that is what we do for the people that we represent.

Mr. Elwell, the FAA Reauthorization Act includes several important changes related to the contract tower program, including section 152, authorizing the FAA to make grants to these airports from the small airport fund to construct or improve their air traffic control towers.

In Arizona, Phoenix-Mesa Gateway Airport is one of the fastest growing regional airports, and the busiest contract air traffic control tower in the country. In just the last 5 years, annual oper-

ations have increased 80 percent, and commercial activity continues to grow by double digits. The existing tower was constructed in 1970 by the Air Force, not intended for commercial use.

An FAA siting study identified the need for a new tower, due to several safety issues with the existing tower. A new air traffic control tower is critical for this airport. And with 90 percent of the design completed for a new tower, Federal funding for its construction must be a priority.

What is the status of the FAA's implementation of section 152?

Mr. ELWELL. Sir, we are meeting all the requirements on contract towers, and we don't see any problem with it. We are going to meet them all.

With respect to Williams Gateway, a personal connection there, that is where I learned to fly, Williams Air Force Base. And then it came full circle in—one of the first meetings I had in this capacity was the mayor of Mesa telling me, "We need a new tower, but we are only eligible for $2 million towards it."

And I am really glad to see that we fixed that, and that you are going to get a new tower. It is the busiest contract tower in the country, and I am glad to see we finished—we just gave $1.3 million for the design study. It is going to be a 20-some-odd-million-dollar project, but it will be funded.

Mr. STANTON. All right. We are nostalgic for the name "Williams Gateway." It is now Phoenix-Mesa Gateway Airport, as it has gone commercial. But thanks for your service, we appreciate that very much.

In April the FAA hosted a series of workshops in the Phoenix area to hear from residents about flight noise. Those workshops were part of the 2017 lawsuit settlement over noise in the area, a lawsuit filed by the city of Phoenix when I was mayor.

I appreciate the FAA holding these workshops. Going forward, it is important for the FAA to work closely with the impact to communities to incorporate what was learned at these workshops, and to make adjustments necessary to lessen the noise impacts from the eastbound flight paths.

What are the FAA's next steps in this process, particularly additional engagement with the impaired communities, Scottsdale, Fountain Hills, and what is the expected timeline?

Mr. ELWELL. Well, sir, it is a two-step process, as you are aware. We finished step 1, looking at departure route changes based on the community engagement. We have now completed the engagement phase of step 2, and looking at those recommendations.

As you know, there is no commitment to make changes after consultation of step 2. But what—anything we can do, we are going to do.

And I would have to get back to you on the timeline of that. I am sure that the folks that are having those meetings have a deadline for when they are going to get back.

Mr. STANTON. We will follow up. I appreciate that very much.

Let's talk staffing shortages in the FAA and the impact it is having on your regulatory functions. These staffing shortages are causing delays in approval of environmental reviews. And I and so many other Members of Congress are concerned that these delays

will have a ripple effect in delaying important construction projects.

What steps has the FAA taken to address current staffing needs, particularly on the regulatory side, to ensure timely environmental reviews?

Mr. ELWELL. Well, sir, I will have to get back to you on that. I am—to get any specifics on staffing shortages for environmental reviews I will get back to you.

I know that they—you know, depending on whether it is a CATEX or an EA or an EIS, they can be rather lengthy. And, obviously, the size of the examination can have a big impact. But unless Lirio——

Mr. STANTON. That is fair. We will follow up, and I appreciate you taking the time to get back to me on that issue.

I want to turn now to Flagstaff's Pulliam Airport in northern Arizona. Flagstaff averages more than 100 inches of snow, annually. Its airport is classified as a very large airport, meaning there is at least 1 million square feet of total paved runway that must be cleared during snow events.

The airport has applied for an FAA supplementary discretion grant to construct a multiuse equipment building. The airport's current storage facility is at full capacity, doesn't have room to store additional equipment, including no additional room for snow equipment that the airport purchased last year. The proposed multiuse building will provide much-needed storage to protect the airport's extensive equipment.

I just want you to know that I support their request, and look forward to working with you, and want you to keep me updated on the status of that project.

Mr. ELWELL. We will keep you updated on that request, sir.

Mr. STANTON. Thank you so much.

Mr. LARSEN. Thank you. I recognize Representative Katko for 5 minutes.

Mr. KATKO. Thank you, Mr. Chairman. And I want to note for the record that Syracuse gets a lot more snow than what you are talking about in Arizona.

[Laughter.]

Mr. KATKO. I am talking over 190 inches——

Mr. LARSEN. Without objection, so noted.

[Laughter.]

Mr. KATKO. Thank you. Thank you all for testifying today.

And Mr. Elwell, I want to talk to you about something I presume you are familiar with, and that is the unmanned aircraft system facilities and testing programs that we have in central New York in my district and adjacent.

The Griffiss NUAIR complex, which is out of the former Rome, NY, Griffiss Air Base, there is a corridor, a testing corridor from there to Syracuse. It is well established. It has a tremendous amount of State support, local support, municipal support. It is also partly—included is a Tribal reservation, the Oneida Indian Reservation. And there is a lot of testing and research going on already, which we are quite proud of.

There have been two times where we have submitted funding requests or a test pilot request to the FAA. And, given our very ma-

ture program, it was shocking to see that both times, despite having very, very high rankings, neither time were we chosen as test sites. And, in fact, some that were clearly inferior were chosen over us. And that is, to say the least, concerning to us.

So now, here we are again. In June the UAS Integration Office issued a broad agency announcement calling for development proposals from participating UAS test sites. We submitted a proposal—we, being the Griffiss NUAIR complex—submitted a proposal, and we are waiting on the status. It was supposed to be reported this month. And I would like to know what the—any updates on when we are going to find out about that.

Mr. ELWELL. Thank you, Mr. Katko. Could you repeat what the program you are applying for is?

Mr. KATKO. It is the UAS Integration Office at FAA issued a broad agency announcement calling for development proposals from participating UAS test sites. We submitted a proposal—we, being the NUAIR Griffiss and the local.

And I say "we" because we are a team, all of us together, on all levels of Government. And it has been very frustrating with the selection processes in the past for support of these things.

So I am asking now. I know we are waiting for a decisionmaking process, which we are—suspected to get this month. And that is what we were told. And we haven't heard anything. So we are waiting—we are asking from you if you can give us any updates on that.

Mr. ELWELL. Yes, sir. I will get you an update on that. I am not familiar with that particular application and proposal, but I will certainly look into it and get back to you on that.

Mr. KATKO. Are you familiar at all with the NUAIR Griffiss test site?

Mr. ELWELL. I am.

Mr. KATKO. OK. How—what do you know about it?

Mr. ELWELL. I know—I believe, at least, a year or so ago Hoot Gibson was running a part of the operations there, and it is a colleague and a friend who I worked with at the FAA, I know that they have—I know—I am familiar with the corridor, I am familiar with the testing and the activities they are doing there.

Mr. KATKO. OK. Are you familiar with the application they put in a year or two ago for the integrated pilot program, and to be selected as one of the sites? And we have been, by far, the most well-funded site, and all had excellent ratings, and we didn't get it? Are you familiar with that process?

Mr. ELWELL. Well, sir, I know that—I remember the process, but I don't remember all of the individual applicants.

Mr. KATKO. Are you familiar with the second application that the Rome Griffiss made of the UTM pilot program, which we were already working on there, which was already well established?

And again, we had superior marks on everything, and we didn't get that. Are you familiar with that process?

Mr. ELWELL. I am familiar with the—again, I am familiar with the UTM program, but I can't say that I am familiar with the details of that application of——

Mr. KATKO. Well, I would ask to get a quick response to my first question. That was when—we are waiting to hear on the application we have made.

Mr. ELWELL. OK.

Mr. KATKO. And I would like to get that quickly. But it brings up a broader point.

This UAS testing is a very important thing to the future of our country. I also sit on the Committee on Homeland Security. And on Homeland Security, it is clear that the safety component and the antiterrorism component of what they are doing at Griffiss Rome is extremely important to the future of this industry.

And it seems like some of the programs that FAA has rolled out, the testing programs, the pilot programs, have been influenced by things other than just getting the best possible sites to get the money. And I would ask that you take a look at that, and I ask that FAA take a look at that. Lord knows, they have heard from me.

But it is concerning that, in such an important and vital program, that extraneous things seem to be influencing who gets test pilots and who gets priority in funding and priority in testing. And we have the best monied base, one of the best supported test sites in all the country. And we have been supported greatly by industry. And I ask that you take it a little more seriously, moving forward.

Thank you, and I yield back.

Mr. LARSEN. Thank you. Before we move forward, just for those Members who are here in order on our side, we have Lynch and García. And on the Republican side, Stauber, Massie, and Fitzpatrick.

And before we go to Steve Lynch, I just want to ask Mr. Stauber if he wanted to get in on the who has the most snow in the world contest taking place in the committee.

[Laughter.]

Mr. STAUBER. Mr. Chair, I was thinking the same thing, but I will yield back.

Mr. LARSEN. OK, great, all right. I will go with Representative Lynch from Massachusetts for 5 minutes.

Mr. LYNCH. Thank you, Mr. Chairman and the ranking member, for this hearing. And thank you to the full committee chair, Mr. DeFazio.

I do want to take a moment to recognize and acknowledge Ms. Nadia Milleron. She is the mother of Samya Stumo from my State of Massachusetts. By all accounts her daughter was a bright and remarkable young woman. She was tragically killed in the Ethiopian 737 MAX air disaster. She is here with other members of victims' families, and we are indeed grateful for their willingness to come forward and to hold people accountable in memory of their loved ones.

Mr. Elwell, so I have to just take some exception to your description of the FAA's willingness to engage with the community, local communities. You know where this is going, right?

In your response to Ms. Craig and Ms. Davids you talked about the way the FAA goes out and meets with local communities that are affected. And I have to tell you I have been here 18 years. I

have been looking for meetings probably for the last 12. We have had one community meeting in my area, Logan Airport, in Milton. We got 700 people there. There was a Celtics game that night, and we still got 700 people there.

People are—my phone blew up. When you were saying how good the FAA was with community engagement, my phone blew up. I know of the people in Milton and South Boston and Dorchester are throwing stuff at their TVs right now because of your statement. So that is totally false. That is totally false, and we need to do better, OK?

I am not going to go further than that, but it is deplorable, your outreach. The only reason that we had the one meeting that we had—I put a floor amendment on to pull $25 million from the last FAA authorization because you weren't doing outreach. And Mr. Shuster, who was the Republican chair, agreed with me. And then we had a meeting with the DOT Secretary, myself, and Mr. Shuster. And for $25 million, me withdrawing my amendment to remove $25 million from the FAA budget, they gave me a meeting. And I will do it again, if that is what it takes. But it shouldn't. It shouldn't.

By the way, there is some good news from the FAA. Look, I was one of the people that sponsored this healthy study, because you are putting thousands and thousands of planes over the same houses in Milton, Massachusetts, and Hull in South Boston, and Dorchester. And I think it is impacting the health of my constituents. So we are going to do a study.

We could do a meeting, a public meeting, and the FAA could come in and talk about their work with the Boston University School of Public Health. You know, Dr. Levy is running that. That is good news. You could talk about the fact that the FAA has funded—you didn't say this, but the FAA has funded the emissions study that we asked for for pollution over these homes. And also, the noise study. You have done that, as well. That is good news. You could come into my district and talk to my constituents and explain about the good things you are trying to do.

But that is not the history we have had with you. It is like pulling teeth to get the FAA to come in and talk to people.

I have to describe the attitude of the Boston office of the FAA is, you know, they treat us with contempt. They really do. They really do. And so people are upset.

You have got some good news to tell of the things you are trying to do, you just need to tell them, come in and tell them.

They yell at me, they will probably—you know, they will probably—the folks are pretty mad about what is going on, you know. You get thousands and thousands of flights over the same homes every single day, and that gets people upset.

You have got a study in here to talk about dispersal. Let's talk about that. But, you know, we need to do better.

Also, on behalf of my colleague, Ms. Eleanor Holmes Norton, who sits beside me—and she is also my cochair of the Quiet Skies Caucus—we have been trying to get the new Administrator for the FAA in to meet with the Quiet Skies Caucus for a while now. We sent a letter on August 5th, and we have not heard back. So we

would really appreciate it if they would deign to just attend with us and talk about these issues.

But I think that is all I have got, Mr. Chairman. But we really got to do much better. And I think I speak on behalf of my other colleagues that represent metro areas that have airports in them, that we really got to do a much better job with community communication between us and the FAA, OK? Thank you, I yield back.

Mr. LARSEN. Thank you, Mr. Lynch. I recognize Representative Stauber for 5 minutes.

Mr. STAUBER. Thank you very much, Mr. Chair. I appreciate you holding this meeting. I want to give you a scenario, and I will be—I think I could be pretty detailed on it to make my point.

Let's say a husband and wife, four kids, one with special needs—let's say it is Down syndrome—the child is severe and profound, walks very slow, loveable kid. And that family decides to leave Duluth, Minnesota, let's say, to come to Washington, DC, for example. And the special needs child in that family walks slow, he is being pushed down the aisle. And the plane is delayed, the family has that connection in Minneapolis to come to DC.

The plane is delayed, and the family were to ask the flight attendant, "Can you help? We have a special needs child. We are delayed now." Is there some wheelchair accessible folks that can meet that family to get them—to make their flight to DC? And keep in mind this child walks slow, he walks at his pace. And the answer is, "We are not sure."

So the family gets off the plane. They have got about 17 minutes to get down to a gate that is in the different part of the airport. And they make their flight, barely. Mom and Dad are stressed. The other kids are frustrated. And so is the child.

Can you imagine? I just gave you the scenario. Do you know who that family is? That is my family. The new Reauthorization Act requires the assistance of individuals with special needs to have the best practices. I would say, Mr. Szabat, please, as you put this forward, talk to the special needs community and those people with disabilities. They know the best and their families.

With that being said, as the gentleman spoke earlier, FAA is doing some great things. I fly it every week. I see the successes. But please take that seriously, when there are suggestions, because the stress that my family was put under to make the inauguration of me, the swearing in, was critically important. And it was very stressful during that period of time, when we couldn't get that assistance we needed.

And I am not blaming anybody, Mr. Szabat. I am telling you the experience from a Member of Congress on this subcommittee. I am so grateful to be here to share this with you, because I think personal stories matter. And I trust that you will take not only my concern, but the others' concern as you put in best practices for our special needs and disabled community.

And with that I want to quickly ask what is—what are we doing—are you seeing some good suggestions coming forward to make it easier, less stressful, and to make it—the special needs population, where they are treated fairly and equally? Can you give me some ideas where you are at right now?

Mr. SZABAT. Thank you for the question, Congressman, for your obvious passion on the issue, and for your work and the committee's work of putting these provisions into the FAA reauthorization, both for wheelchair access and for trained service for the people who are required to take wheelchairs. Like you, we take these requirements seriously.

With that, I want to turn this over to Assistant General Counsel Blane Workie, who is also our aviation consumer advocate, and has been working with advocates on this issues.

Ms. WORKIE. Thank you for that question. I am very sorry to hear about what happened to your family, or any family that experiences that kind of difficulty in obtaining access when they travel. That is simply not acceptable.

We enforce the Air Carrier Access Act, which prohibits discrimination against air travelers with disability. We investigate every disability complaint that we receive, and we send a response to the complainant, let them know how their complaint has been resolved.

We also work very closely with the——

Mr. STAUBER. So I just have 30 seconds. What I am asking is do you have anything today on some best practices that you are implementing that—with the information you have? And I only have 20 seconds.

Ms. WORKIE. Sure. So if you only have 20 seconds, I will say take a look at our website. We do have best practices available on our website, airconsumer.dot.gov. There is information on disability access.

We are also going to be working on some of these issues with the Air Carrier Access Act Advisory Committee.

Mr. STAUBER. I look forward to the results, and thank you, Mr. Chair, for bringing up the special needs population in your opening statement.

Mr. LARSEN. You are very welcome. I now turn to Mr. García for 5 minutes.

Mr. GARCÍA. Thank you, Chairman and Ranking Member, as well. While I was not a Member of the Congress when the 115th Congress passed the long-term FAA reauthorization, I have followed its implementation.

Mr. Elwell, Mr. Szabat, I understand that some of the over 400 mandates in the FAA bill had short implementation timelines. Having said that, I am really concerned about the time it has taken to advance several safety provisions that I personally think ought to be advanced more quickly. I will just leave it at that.

A question for Mr. Elwell. Before I get into the 2018 FAA bill I do want to ask you directly, like I did earlier this year, of safety workers testifying before this committee.

In 2012 and 2016—twice, now—Congress directed the FAA to address safety gaps between domestic aircraft repair stations and foreign repair stations. The FAA is now more than 7 years overdue to create an enforceable rule to raise the standards for foreign repair stations regarding security background checks and alcohol testing. When will the FAA implement this rule?

Mr. ELWELL. Mr. García, thank you for that question. Obviously, as testified before this committee on several occasions, it is a very,

very complex rule, requires navigation. The law requires that we navigate the home country laws with regard to alcohol testing.

But obviously, also, the beginning of this rulemaking and the law that was first passed predates me. And so, if you would permit, I would ask our expert——

Mr. GARCÍA. Briefly, please.

Mr. ELWELL. Yes.

Ms. LIU. Good afternoon, sir. So we did actually publish an ANPRM, an advanced notice for proposed rulemaking in 2014. We were seeking comments on how we would implement the provision because of the complexity of working with the various international partners.

We were able to get some information on cost-benefit analysis, as well as the systems that are in place in the foreign locations where we have repair stations that are certified.

I think we have drafted an ANPRM. It is actually in coordination. It is not easy to draft a rule of general applicability with the various international frameworks that are existing related to drug and alcohol testing. So I would say that it is a rule that we have drafted. We hope to move it through the executive coordination, so that we can publish that notice for comment, so that we can gather some more information, so that we can prepare for the implementation.

However, in the meantime, I think we have made improvements to address the risk. Under part 145 certification, which is for the repair station, we actually established an MOU with TSA and the FAA in the background checks, so that we can address the security aspects of those people. We may not be able to look at drug and alcohol, but we can look at the security application, based on their background checks.

And also, as a 121 operator, which is an air carrier operator, they—has the responsibility to have a safety management system. Any part of their system which could include repair station certifications, if they would be utilizing through contractual benefits, they are responsible to address any risks that they would see there, and ensure that they mitigate that risk.

Mr. GARCÍA. OK, thank you. I think that will suffice for now, because my time will run out if I let you continue.

On the topic of safety, in the 2018 bill the questions of minimum seat size, distance between rows, safety, and evacuation times has been addressed by Chairman DeFazio. I thank him for that.

The third question, Mr. Elwell, after leaving them out in the 2012 bill, the 2018 FAA bill instructed the Department of Transportation to implement a 10-hour rest period for flight attendants. Mind you, these flight attendants can often work up to 16-hour shifts, and the rest period does not take into account time for deplaning to get to and from hotel to actually rest.

The DOT missed the statutory deadline to implement the rule by November 4 of 2018, and did not even begin a formal process until February of this year. I understand you may be starting action now. What took so long, and why did DOT feel the need to do a full comment period when the law this body passed gave no discretion to augment how the regulation should be written?

Mr. ELWELL. Well, sir, thank you for that question. As we talked about this earlier, the law was clear. However, it did not absolve us of the responsibility to do notice and comment. And for a rule that does not impose directly on the operators, FAA has no choice but to go through rulemaking, and notice and comment, and benefit-cost analysis, which is the biggest reason why it has taken so long.

But, as we mentioned earlier, sir, the fatigue risk management plans are being submitted at a good clip by the 48 different carriers that have flight attendants, and that is—meets the need while we go through this rulemaking period.

Mr. GARCÍA. Thank you. I yield back, Mr. Chair.

Mr. LARSEN. Thank you. Before we go to Mr. Massie and Mr. Fitzpatrick—those are the only two Members I have left, barring any other Members who come—I do plan to take a 5-minute break to reset the panelists.

However, if folks who are on the second panel want to take an opportunity now for a comfort break, the timing is about right. So if folks want to think about that—but we will be taking a 5-minute break between panelists.

And with that I will turn to—I think Mr. Massie is next.

Mr. MASSIE. So I am the only thing standing in between them and their break?

Mr. LARSEN. You can handle the pressure, Tom.

Mr. MASSIE. All right. Maybe I will get quick answers.

Mr. Elwell, I am glad to see a pilot in your position, a commercial pilot. I am sure that is helpful to the taxpayers and to all of us, to have your view of things.

I want to focus on the data communications portion of NextGen, and the implementation of that. Specifically, the controller-pilot data link. Can you talk about the benefits of that, and the projected benefits, and what some of the benefits are we have seen?

Mr. ELWELL. So thanks for that question. CPDLC, controller-pilot data link communications, actually was—the test base for that was Miami and the 757, when I was flying the 757 for American. So I am proud to be——

Mr. MASSIE. I thought you might have some relevant experience.

Mr. ELWELL. Yes. So I am proud to be one of the first pilots to tear off that strip of paper from the controller saying to climb to 16,000.

And so—but that—I don't mean to be light about that. The DataComm, as it is called now, has huge benefits, especially—we implemented it over 50 towers on the surface, because, instead of sitting there for 20 minutes, waiting to get a word in edgewise at a very, very busy airport, you just get a display of what your clearance is, you push a button, you accept it. It vastly eliminates readback and transcription errors. And, of course, in efficiency and time, not having the chatter on the radio cleans up the radio. Situational awareness is enhanced. I could go on for a long time about the value of it.

And I know where you are going. If you want me to help on CVG——

Mr. MASSIE. Yes, that is exactly where I am going, because, also, fuel savings and safety are benefits of that system.

But what I am told by people who like the system—and they say it is a bright spot, actually, in the NextGen implementation—that there are some less bright spots and some delays here and there, but—and this is one example where it has been helpful.

Mr. ELWELL. Yes.

Mr. MASSIE. And I am told at the CVG Airport—and then I will open up and let you tell me if this is true—that they have already made the capital investment to implement this, and that most of the planes that land and take off there have made that capital investment on their own.

And just for your information, which I am sure you probably are already aware of, the CVG Airport, cargo has doubled there in the past 5 years. Amazon located their hub there, DHL moved their hub there. Passenger flights originating there have doubled in the last 5 years. And what they are wondering is when can they turn that on, because it is—and I will open it up to you.

Mr. ELWELL. Yes, sir. I am well aware of that, and CVG has had exciting growth, and they have—importantly, have the capacity for that growth, so it is a good thing to see.

One of the criteria for doing and putting DataComm into an airport is to assess the equipage rate by all operators at it. Because if you don't have the equipage critical mass, then turning it on doesn't make much sense. So we are in the process of looking at that. And once we have the capabilities in the tower, and we have the equipage on the ground, I don't see a reason why we wouldn't turn it on.

So we will get back to you. If there is something that either—CVG can help us to get there, we will let you know. But I agree, it is the right thing to do, and in every place we can do it, we are trying to do it.

Mr. MASSIE. Obviously, the air traffic controllers would need some training on it, but the capital investment is just sitting there, unused. That is the capital investment that the taxpayer or the feepayers at the airports have made.

And then entire fleets there have this technology already in their planes. They were told, "You make this investment, then FAA will uphold its side of the deal, and you will reap these benefits." And so they have made those investments, the FAA has made those investments. And it is —I mean the volume there, I think, easily justifies it. Now, maybe it didn't 5 years ago, when the plan was put forward, but of the—I mean I am glad there are 62 airports that have it. Please get back to me and let me know when you think we can get that at CVG.

We are a little bit—I am a little bit concerned that the focus has already moved on to phase 2, which is the en route system. But that is a little—having a little rockier roll-out. Why don't we go ahead and get some of the benefits of the system? We know it works at other airports.

So thank you very much for your time, thank you for being aware of that situation.

Mr. ELWELL. Yes, sir.

Mr. LARSEN. Thank you, Representative Massie. I recognize Representative Fitzpatrick for 5 minutes.

Mr. FITZPATRICK. Thank you, Mr. Chairman.

Mr. Elwell, the question that I have for you pertains to an issue myself, my Democratic colleague, Josh Gottheimer, and many, many of my Democratic and Republican colleagues both in the House and the Senate care deeply about: the issue of secondary barriers.

Ellen Saracini—she is with us here today—is the widow of Victor Saracini, a constituent of mine who was the pilot of flight 175 that flew into the South Tower of the World Trade Center at 9:03 that morning. And last year Congress passed the FAA Reauthorization bill, including section 336, named the Saracini Aviation Safety Act of 2018, which mandated secondary barriers in the cockpit of all new aircrafts.

The mission is not complete until we get retrofitting. We will not stop until we get secondary barriers in every single aircraft that carries passengers. It is one of the few, if not the only 9/11 Commission report yet to be implemented 18 years after 9/11. The deadline is coming up for the implementation of secondary barriers. And where does the process stand, and what has caused the slow progress on implementation?

Mr. ELWELL. Well, sir, thank you for that question. And as someone who was intimately familiar in 9/11 as a DC-based pilot with American Airlines at the time, and someone who knew the entire crew of flight 77, I can connect very strongly to this effort. We are committed—I personally am committed—to seeing that it gets done, and consistent with the law.

And to answer your question, right now the Aviation Rulemaking Advisory Committee has this task to provide comment. And I know that we have had this discussion, we have gone back and forth a few times. Rulemaking is required. It just—it is just—it just is. Rulemaking is required for the secondary barriers. And we have begun that process, and we will see it to its conclusion. And it will apply to new production, and—but we have to do it safely, we have to do it by the law with notes and comment, and—but it—but we are going to get it done.

Mr. FITZPATRICK. Do you anticipate that it will be done by the deadline?

Mr. ELWELL. I am sorry, the question is by the 18-month deadline?

Mr. FITZPATRICK. Correct.

Mr. ELWELL. So we won't have the rulemaking done by that deadline.

Mr. FITZPATRICK. Do you know when it will be done?

Mr. ELWELL. Well, sir, we will work as expeditiously as the rulemaking allows. Rulemaking, once—the issue, of course, is giving enough notice and comment time for each stage of the process, which is what always elongates rulemaking. And I can't—it is—I can get back to you on a more granular prediction, but I don't have one right——

Mr. FITZPATRICK. Please do, sir.

And, Mr. Chairman, I would like to ask unanimous consent to enter into the record a letter written by Ms. Saracini to this committee.

Mr. LARSEN. Without objection, so ordered.

[The information follows:]

Letter of September 26, 2019, from Ellen Saracini, Widow of Captain Victor J. Saracini, United Flight 175, Which Struck the South Tower of the World Trade Center on September 11, 2001, Submitted for the Record by Hon. Brian K. Fitzpatrick

SEPTEMBER 26, 2019.

Chairman LARSEN and Ranking Member GRAVES,
House Aviation Subcommittee,
U.S. House of Representatives, Washington, DC.

DEAR CHAIRMAN LARSEN AND RANKING MEMBER GRAVES,

Late last year, the Congress passed the FAA Re-authorization Bill, including section 336, named the Saracini Aviation Safety Act of 2018 which mandated secondary barriers in the cockpit on new aircraft.

The law required the FAA to report back to Congress by Oct 6, 2019 how they were going to implement this important new security enhancement. Now, with less than a month before the due date, the FAA has just recently selected the working group but today has no meetings scheduled, making it nearly impossible to meet the Congress mandated timeline. How can this be allowed? Instead of moving forward on protecting Americans, the FAA will once again drag their feet and ask for an extension.

America just commemorated the 18th anniversary of the terrorist attacks on September 11, 2001. At the core of our commercial aviation security failures was an acknowledgment of the vulnerability of airplane flight decks. Congress spoke, passed laws meant to secure our aircraft, but key weaknesses still exists. The known vulnerability to the flight deck during door transition, was never resolved. The fact that we have installed an impenetrable cockpit door that still opens unprotected during flight, validates this truth. The vulnerability remains and now we cannot protect the cockpit if breached and a terrorist closes the door behind them. After 18 years, a comprehensive RTCA study and an FAA Advisory Circular certified this vulnerability, we are still exposed to a 9–11 type attack. And now, a year after passage of this bill, this vulnerability still exists and we are no closer to protecting our crews and passengers than we were 18 years ago.

Why? Why would the FAA apparently thwart the will of Congress by not doing their job? Why would the FAA fail to act when the RTCA Committee made it clear that current flight deck protection procedures don't work? Why would they water down interpretation of AC 120–110 to the point of irrelevance? Why would they only "suggest" we hold off a 200-pound intruder for 5 seconds, but do nothing to regulate this, when they know it is not being adhered to and when they know that the most robust procedures currently used will not thwart off an attack unless we use a secondary barrier? Why would the industry's trade association, A4A, fight so hard to keep from closing up this vulnerability to the flight deck?

What is Congress prepared to do to make sure its will is respected? How many delays will be tolerated as the FAA fails at doing as directed by Congress? Who will be held accountable? Clearly Congress should not consider that the FAA actually would do their job with passage of a bill mandating secondary barriers only on newly manufactured airplanes. Even when the FAA reluctantly implements this law, there will still be the issue of the vulnerability to the thousands of existing airplanes that will not be required to install secondary barriers, until Congress decides to finish the job they set out to do 18 years ago and "prohibit unauthorized access to the airplane cockpit".

In the 9/11 Commission report, the authors expressed the essence of the Nation's failures that led to 9/11. They called it, "a failure of imagination".

This known vulnerability remains. The obvious fix, secondary barriers on every commercial airplane, still eludes us. What will our excuses be next time airplanes are used as a weapon of mass destruction? Will we be able to live with these excuses? I know 2,977 innocents who didn't have that luxury. I know 2,977 families that just might feel that their loved one died in vain, and that our own country failed to protect its innocent citizens from a repeat attack.

On September 11, 2001, an infamous day in our history, 19 Islamist extremists took advantage of the many weaknesses and loopholes we had in our Visa systems, Federal law enforcement and intelligence capabilities, and in particular, weaknesses in our aviation security systems. By simply observing our vulnerabilities, they executed a devastating attack on our Nation. Our collective failure to protect America led to the murder of 2,977 innocent citizens. And our enemies danced in the streets, we shouldn't act as if we'd allow that to happen again.

Congress, the power is in your hands. Please don't wash your hands of this responsibility with the blood of my husband, 2,976 other 9/11 victims, and potential future innocents. America is watching, and inaction could carry dire consequences for us all.

Respectfully,

ELLEN SARACINI,

Widow of Captain Victor J. Saracini, United Flight 175 that struck the South Tower of the World Trade Center on September 11, 2001 at 9:03AM.

Excerpt from: A Congressional Mandate

On Nov. 19, 2001, the U.S. Congress enacted the Aviation and Transportation Security Act (ATSA), which directs the FAA to take action to improve airplane security both immediately and in the long-term. The law gives the FAA the authority to carry out the ATSA's directives.

The ATSA required that "as soon as possible" the FAA *prohibit unauthorized access to the airplane cockpit* control authorized access to the cockpit, require strengthening of the cockpit door and door locks to ensure that the door cannot be forced open from the passenger cabin, *require that flight deck doors remain locked during flight*, and prohibit the possession of a key to the cockpit door by anyone not assigned to the cockpit.

Mr. FITZPATRICK. Thank you, Mr. Chairman.

Sir, one last question regarding drones. The United States has already fallen behind the rest of the world when it comes to unmanned aircraft systems technology. And these regulatory delays are stifling innovation and investment.

What are the reasons for the FAA's delays in this area? And can you commit to the committee today that the FAA will stick to its current schedule and complete these rulemakings as expeditiously as possible?

Mr. ELWELL. Yes, sir. We are working on all of the rulemakings, and getting them done as quickly as we possibly can.

But I would tell you I don't ascribe to the statement that we are falling behind other countries. There is no other country that can compare to rule 107. There is no other country that gives the waivers that we have given, or is doing the pilot programs that we have which integrate—and this is the most important distinction we need to make, sir. Other countries are primarily doing operations in the way of segregating UAS from the rest of the NAS, or the rest of the airspace.

We are going in with the assumption that our UAS in the U.S. will be integrated. It is a much more complex endeavor. And—but I wouldn't characterize it as us falling behind. We are tackling larger issues in the most complex—largest and most complex airspace in the world.

Mr. FITZPATRICK. My time has expired, Mr. Chair. I yield back.

Mr. LARSEN. Thank you. I recognize Representative Norton for 5 minutes.

Ms. NORTON. Thank you very much. I am sorry I couldn't be here for the entire hearing. I am pleased I could be here for part of it. And I do want to ask a question that I think is probably more relevant to my colleagues than to me. I may be the only of my colleagues who doesn't have to get on an airplane every week. I just go nine blocks to Capitol Hill, where I live.

But I read recently something that troubled me a great deal. It—there were incidents where the planes came down safely—I was pleased to hear that—but passengers had to evacuate the airline.

Now, under the existing regulations, you are supposed to evacuate aircraft within 90 seconds. That is a very short period of time after a plane goes down. But what these incidents reported, or what the press reported, was that, as people were trying to get out of the airline, they were grabbing their carry-on baggages and, obviously, thereby slowing up evacuation. That can be a life-and-death matter. You got your baggage, but you don't survive.

Our authorization does ask the FAA—of course, you haven't had time to fully assess, but it asks the FAA to assess and report to Congress on whether the assumptions and methods certifying compliance with evacuation requirements should be revised.

Mr. Elwell, I am bringing that up because already it seems to me that some revision should occur. And I understand that the FAA has initiated a rulemaking committee to address this issues. I would be very interested, given recent events, to know the status of that mandate you apparently are working on now.

Mr. ELWELL. Thank you, Ms. Norton, for that question. We have created an Emergency Evacuation Standards Aviation Rulemaking Committee, ARC, and its first meeting is in a matter of weeks, I believe. And we are going to use the ARC, which, of course, as you know, is a gathering of stakeholders and industry experts, for their comment and their advice on how to go forward.

We have been having an active conversation with this committee, and with our stakeholders, and I can't remember if you were here when we talked about ground evacuation live tests. We have 12 days of testing that is scheduled for November. I believe it starts November 3rd or 5th through December. We are going to have 12 days. We have 720 folks that are going to participate. We are going to gather over 3,000 data points.

To your point, it is to—and I agree, and agree with Chairman DeFazio—it is a priority of his, as well—we need to look at evacuation and make sure that we have all the right assumptions, and to ensure that in these instances folks can get out of airplanes in emergencies.

Ms. NORTON. I wasn't here, and didn't hear that, essentially, this is going to be testing these assumptions, with people getting on and off airplanes?

Mr. ELWELL. Mm-hmm.

Ms. NORTON. Because my last question was going to be where did 90 seconds come from. One of the things I will be interested in is whether or not anybody tested to see whether it is realistic to believe that people—a full airplane can get off in 90 seconds, and if that was just pulled out of the air, or if it was based on testing.

Mr. ELWELL. I can get back to you on the assumptions, of the original assumptions of the 90 seconds. Of course, the assumptions of getting off an airplane have to do with flammability, survivability, cabin filling with smoke or not, and every incident is different, of course. Ninety seconds could be more than enough in some instances, or nowhere near enough. Or the accident or the incident could be such that you have all the time in the world. And other times it is just a matter of seconds.

So it is very complex, which is why we have formed the ARC, which is why we have asked industry experts to give us advice on what we need to be looking at. We want to look at the right things,

and we want to do it expeditiously. But we want to make sure we are answering the right questions.

Ms. NORTON. Thank you very much, Mr. Chairman.

Mr. LARSEN. Thank you. I recognize Mr. DeFazio.

Mr. DEFAZIO. Oh, thanks, Mr. Chairman. I will make this brief.

I appreciate the amount of time that you have given, but you won't be here for the second panel, and this goes back again to the secondary barriers. And this is in the testimony from ALPA. And it—I was not aware of this, that you had already—the FAA has previously developed and published guidelines for secondary barriers using RTCA, a private, not-for-profit corporation, that contained design characteristics, minimum performance criteria, installation and certification guidance. And it is DO3292011.

And, you know, that seems like maybe we don't need to go through a whole new evaluation process, and we can rely on that and then move forward.

Mr. ELWELL. Was that a question, sir?

Mr. DEFAZIO. Well, I guess. I mean are you aware of that? And is there——

Mr. ELWELL. No, sir. We are very aware of 329. In fact, that is what has—since 2011, that is what the airlines are adhering to, the guidance that—when you did the example of the flight attendant standing behind the cart, that is part of D0329 guidance.

Mr. DEFAZIO. Right, but he—ALPA is saying that it has actual design characteristics, minimum performance criteria, and installation and certification guidance for secondary barriers, not flight attendants behind food carts.

I don't know, I am not familiar with the document, but I would suggest that we will get the document, we will review it, and I would suggest that perhaps, you know, there is more in there than menacing-looking flight attendants behind food carts. So thank you.

Thank you, Mr. Chairman.

Mr. LARSEN. Thank you, Mr. Elwell and Mr. Szabat and your team. I thank the teams. Thank you very much for testifying today. You can tell by the breadth of the questions there is a lot of interest in the full implementation of the bill we passed last year, not partially.

And you can also tell by the urgency of the questions the impatience about the timelines. And so we ask you to keep us informed of meeting the timelines that we have asked you to set out, and—on a variety of issues.

So thank you. And, with that, we are going to recess for 5 minutes. And we will get the room reset. Thank you.

We are in recess for 5 minutes.

[Recess.]

Mr. LARSEN. I will call us back from break for the second panel. I want to thank the panelists for your patience. As you can tell from the first panel, from our Members, there is a lot of interest in practically every part of the bill that we passed last year. And that is actually good news. So I appreciate you being here and hanging with us, and for your patience. I am looking forward to your testimony.

And rather than go through biographies, I am sure—for the record, I will just put that in later. I think I am allowed to do that. And we will start with Sara Nelson, with AFA–CWA. You are recognized for 5 minutes.

TESTIMONY OF SARA NELSON, INTERNATIONAL PRESIDENT, ASSOCIATION OF FLIGHT ATTENDANTS—CWA, AFL–CIO; CAPTAIN BOB FOX, FIRST VICE PRESIDENT, AIR LINE PILOTS ASSOCIATION, INTERNATIONAL; GREGORY S. WALDEN, AVIATION COUNSEL, SMALL UAV COALITION; MARK BAKER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AIRCRAFT OWNERS AND PILOTS ASSOCIATION; JOHN BREYAULT, VICE PRESIDENT, PUBLIC POLICY, TELECOMMUNICATIONS, AND FRAUD, NATIONAL CONSUMERS LEAGUE; AND DAVID ZURFLUH, NATIONAL PRESIDENT, PARALYZED VETERANS OF AMERICA

Ms. NELSON. Thank you, Chairman Larsen, Chairman DeFazio, Ranking Members Graves and Graves, as well. But I would like to recognize Congressman Fitzpatrick, who is sticking with us.

So, first of all, I would like to thank this committee for the extraordinary work that you did with all of the stakeholders to get a long-term FAA reauthorization bill passed. It had been a long time since that had happened, and everyone came together, and the votes that you received—we were 393 in the House and 93 in the Senate. This was a clear mandate to move forward with very important safety provisions for our aviation system. And among those was our issue of 10 hours' rest for flight attendants.

Now, this was an issue of safety, health, and equality. Safety. We had been raising the flag on this issue for more than 30 years, identifying flight attendant fatigue, getting through other FAA reauthorization bills the commission of fatigue studies—seven, in fact—that determined that flight attendant fatigue does exist, and the best way to combat it is rest. And yet still here today, we don't have that in place.

Health. Harvard conducted a flight attendant health study, and the results of those studies were published in the summer of 2018. It determined that flight attendants have, on average, between 50 and 400 percent greater rates of cancer than the public, even though they are a more healthy population. And one of those factors that contributes to cancer, to the greater rates of cancer, is interrupted rest.

Equality. We are the only country in the world with aviation regulations that do not harmonize flight attendant and pilot rest. This is an issue of equality.

So we worked with you very closely to write language that would make it very clear and very simple. And I believe you were very clear with the Deputy Administrator earlier that it was intended that the rule would be changed within 30 days. Simply changing one character, 8 hours, to a two-character, 10 hours, to address flight attendant fatigue. The major mitigating factor that can address flight attendant fatigue is by increasing that minimum rest by 2 hours.

For whatever reason, that did not happen. We had a Government shutdown. We had a grounding of the 737 MAX. And just now,

right before this hearing, days before this hearing, we have an announcement of a rulemaking.

Now, I appreciate the attention of the newly confirmed Administrator Dickson on this issue. But there is not a need for a rulemaking on this. This has been litigated. It has been heard. It has been studied. There is a determination that this is a safety loophole in our aviation system, and it needs to be fixed.

Flight attendants do not understand how you can write such clear language and not get this in place. We have been negotiating with the airlines to put this in place in the meantime, and we have successfully negotiated three new contracts that have the 10 hours' rest. In each of those contract negotiations at Miami Air, Frontier, and PSA, the 10 hours' rest was implemented within a matter of weeks, and there was no cost associated with it in the negotiations.

Delta Airlines, hours after the rulemaking process was announced, announced that they would be implementing the 10 hours' rest, as is defined in the law, by the February bid month—this coming February bid month—demonstrating that this can be done in a very short period of time. This is not complicated.

We still have flight attendants who are out there reporting to us that they have forgotten how they traveled home, how they drove home from their trip. They were pulled over by the police saying that they were driving as though they were impaired, when only moments later they were conducting very serious safety functions that the FAA currently says they were safe to perform, but they were impaired.

Others have written to us, "Why do we have to go through drug testing, when the FAA has rest rules that has us impaired doing our work?"

Others say, "I had a medical emergency onboard. I had a long day and a short night. And thank goodness there were medical personnel onboard, because I didn't have the mental capacity to address this, or to address the conflicts between passengers, or to conduct CPR to save a life."

This is serious. We are safety professionals. We are aviation's first responders. Fatigue exists. You gave very specific instruction to the FAA, and this needs to be implemented right away.

Now we are talking with the FAA. This rulemaking will move forward, but we would ask that you do everything in your power to get this to be expedited. I did hear the Deputy Administrator talk about an emergency order of rulemaking. And this seems to be a topic that is ripe for that.

So thank you very much. I would like to talk on many more provisions, and answer your questions throughout the testimony.

[Ms. Nelson's prepared statement follows:]

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

Chairman Peter DeFazio, Chairman Rick Larsen, Ranking Member Sam Graves, Ranking Member Garret Graves and Members of the Committee:

My name is Sara Nelson, International President of the Association of Flight Attendants—CWA, AFL–CIO (AFA), representing 50,000 Flight Attendants at 20 airlines. Thank you for the opportunity to testify today on the status of implementation of the FAA Reauthorization Act of 2018 ("Act"). This committee deserves tremen-

dous credit for ushering the bill to overwhelming bipartisan support. It is nearly a year ago, on October 5, 2018, that this comprehensive legislation with long-term funding containing dozens of important safety provisions and initiatives for U.S. aviation became law. Our union counts eighteen key items in the bill specific to the work of Flight Attendants and safety in the aircraft cabin. Chief among these items and included in my testimony today are efforts to combat Flight Attendant fatigue with improved rest, a study of evacuation certification standards in the reality of today's aircraft cabin, installation of flight deck secondary barriers, and addressing the troubling rise of assaults against customer service agents.

FIGHTING FLIGHT ATTENDANT FATIGUE WITH INCREASED MINIMUM REST

Flight Attendant rest is a safety issue. It also affects Flight Attendant health. Further, it is an issue of equality. As a refresher for lawmakers and regulators we will include the details that determined the need to close this safety loophole in the Act, while first addressing the status of implementation and need to act quickly on implementing the law.

The Act provided specific instruction on implementing increased minimum rest for Flight Attendants.

> SEC. 335. FLIGHT ATTENDANT DUTY PERIOD LIMITATIONS AND REST REQUIREMENTS.
>
> (a) MODIFICATION OF FINAL RULE.—
>
> (1) IN GENERAL.—Not later than 30 days after the date of enactment of this Act, the Secretary of Transportation shall modify the final rule of the Federal Aviation Administration published in the Federal Register on August 19, 1994 (59 Fed. Reg. 42974; relating to flight attendant duty period limitations and rest requirements) in accordance with the requirements of this subsection.
>
> (2) CONTENTS.—The final rule, as modified under paragraph (1), shall ensure that—
>
> (A) a flight attendant scheduled to a duty period of 14 hours or less is given a scheduled rest period of at least 10 consecutive hours; and
>
> (B) the rest period is not reduced under any circumstances.

The intent of this language was to implement the rest without a rulemaking process in order to close the safety loophole of Flight Attendant fatigue as quickly as possible. The change to the duty and rest rules is singular, only increasing minimum domestic rest from 8 hours to 10 hours. There is no change to duty limitations or extensive rules such as the FAR 117 that provided comprehensive duty, rest, and flight time limitations for pilots. It was understood that FAA would allow a normal implementation period for airlines and direct carriers to comply with the new rest provision by a date certain, typically allowing a six-month implementation. Flight Attendants therefore expected the 10 hour minimum rest to be reflected in schedules and the operation by approximately May of 2019. That did not happen.

We have heard that a few airlines mounted significant opposition to the implementation and argued to the FAA that the minimum rest would be too costly and difficult to implement. These arguments were, in our view and experience, without merit. Further complicating efforts to press for implementation of the rest provision was the 35-day Government Shutdown that halted all progress, as well as the grounding of the Boeing 737 MAX.

In the interim, AFA pressed airlines to comply with the law's intent. Where we were involved in contract negotiations, we locked in the provision as defined by the law. This was relatively simple to achieve as airlines recognized that this would become the required standard across the industry once the FAA implemented the law and enforced the regulation. Specifically, Frontier Airlines, PSA Airlines, and Miami Air International have ratified agreements with rest that mirrors the Act since the October 5, 2018 signing. Other airlines where negotiations are on-going have also already agreed to mirror the rest provided by the Act.

Frontier Airlines, an ultra low cost carrier with nearly 2500 Flight Attendants, agreed to include the 10 hours irreducible rest in a contract that was ratified on May 15, 2019. The airline was able to implement the new rest rule by the July schedule month, less than six weeks later. The company did not mention a specific cost for this as it was rolled into the overall cost of the contract.

PSA Airlines, a regional airline with 1300 Flight Attendants, also agreed to 10 hour minimum rest language that mirrors the Act. The contract was ratified July 15, 2019 and the new rest rules were fully implemented in schedule and operation on September 1, 2019. PSA management did not give this improvement any incremental cost during negotiations.

Miami Air, a charter airline with approximately 100 Flight Attendants, agreed to language that mirrors the Act also. This contract was ratified on October 12, 2018 and the rest provision was implemented within a month. The airline did not assign a cost to this change during negotiations.

Horizon Air, a regional airline with approximately 500 Flight Attendants, agreed outside of contract negotiations to implement the rest as defined by the Act.

Alaska Airlines, jetBlue, Omni Air, Silver Airways, Southwest, and United Airlines all schedule at or over the 10 hours minimum rest, but based on either the Flight Attendant or company discretion the rest can be reduced in the operation.

Most regional airlines that do not have contractual 10 hour minimum rest are already bidding schedules with 10 hour rest because the airline schedules the Flight Attendants with the pilots to avoid operational issues. Examples of this are Piedmont Airlines, Mesa Airlines, and Envoy Airlines.

However, language in an airline contract can be negotiated away or worse. We know through experience that when an airline faces serious financial challenges, management uses bankruptcy as a business model, to ask a judge to abrogated contracts. If the DOT and FAA do not change minimum rest standards as written in the Act, Flight Attendants will never be assured 10 hours rest.

Recently confirmed FAA Administrator Steve Dickson assured AFA and lawmakers he would make implementation of 10 hours rest a priority. On September 6, 2019, under his leadership the FAA took a public step forward announcing an Advance Notice of Proposed Rulemaking (ANPRM) for implementing the 10 hours minimum rest. Within hours, Delta Air Lines announced (see Appendix 1) they would implement the rest as defined by the Act with the February 2020 bid month—demonstrating the truth that all airlines can do this within a few months' time.

The Office of Management and Budget (OMB) has cleared the ANPRM. While we do not believe that a rulemaking process is necessary or consistent with the Act, we do want to acknowledge the effort on the part of Administrator Dickson and FAA staff to take definitive steps to move forward with implementation of the 10 hours irreducible minimum rest. We urge the FAA to move with urgency through this process to conduct fact finding expeditiously through the ANPRM in order to issue the final rule as soon as possible.

AFA will continue to work with FAA to provide all necessary data to expedite the final rule. *While we are heartened by the efforts of Administrator Dickson, we urge Congress to do everything in its power to support expediting the process. The reality is that rulemaking can be a lengthy process and critical safety issues should be on a different track for implementation.*

Flight Attendants are daily experiencing reduced rest and the difficulty of performing our safety and security sensitive duties while fatigued. In a May 2019 AFA survey that included nearly 20,000 responses from Flight Attendants at 30 airlines, implementation of the 10 hour irreducible minimum rest continues to be the overwhelming regulatory priority for Flight Attendants. We continue to receive reports of rest reduced to the 8 hour FAA minimum between extremely long duty days. This is a critical issue of safety that needs to be fixed now.

BACKGROUND ON FLIGHT ATTENDANT FATIGUE, HEALTH, AND 10 HOUR REST EQUAL TO PILOTS

In 1994, the FAA promulgated the first rule for Flight Attendants setting minimum duty period limitations and rest requirements. The FAA stated the action was necessary to ensure Flight Attendants would be rested sufficiently to perform their routine and emergency safety duties. Until that time, unlike pilots, dispatchers, air traffic control operators and maintenance technicians, Flight Attendants were the only safety-sensitive aviation group that had no regulations with respect to flight or duty limitations and rest requirements.

In 2005 and 2007 Congress directed the FAA's Civil Aerospace Medical Institute (CAMI) to conduct a series of fatigue studies for Flight Attendants.

The Omnibus Appropriations for FY '05 contained an appropriation for $200,000 directing the FAA to conduct a study of Flight Attendant fatigue. The FAA was to report back to Congress by June 1, 2005 with their findings.[1]

Report language stated: "The Committee is concerned about evidence that FAA minimum crew rest regulations may not allow adequate rest time for flight attendants. Especially since the terrorist attacks of September 11, 2001, the nation's flight

[1] United States, Congress, House, Committee on Appropriations, *Department of Transportation and Treasury and Independent Agencies Appropriations Bill, 2005*. 108th Congress, 2nd session, House Report 671. Page 18

attendants have been asked to assume a greater role in protecting the safety of air travelers during flight. Current flight attendant duty and rest rules state that flight attendants should have a minimum of 9 hours off duty, that may be reduced to 8 hours, if the following rest period is 10 hours. Although these rules have been in place for several years, they do not reflect the increased security responsibilities since 2001, and only recently have carriers begun scheduling attendants for less than 9 hours off. There is evidence that what was once an occasional use of the 'reduced rest' flexibility is now becoming common practice at some carriers."

Given these increased responsibilities, an inability to function due to fatigue could seriously jeopardize the health, safety and security of the traveling public and other crewmembers.

We have received reports from Flight Attendants admitting that due to fatigue they had forgotten to arm their evacuation slides, or due to fatigue had forgotten they had unaccompanied minors onboard and allowed them to leave the aircraft by themselves. There are examples of Flight Attendants falling asleep or nearly falling asleep on their jumpseats during landing. These are the same jumpseats that are located next to the emergency exit doors which would need to be used in the event of an emergency evacuation[2].

We also have examples from Flight Attendants that have said they are too fatigued to operate their car, for fear of getting into an accident. We even have reports of members being stopped by law enforcement when driving due to the fact that police believed they were driving under the influence of alcohol because of their erratic driving. Just prior to that they would have, by the FAA's account, been okay to operate the emergency equipment onboard an aircraft in a fatigued fashion. However, as a fatigued driver on the road they are a hazard to others.

In 2007, an interim review of existing literature on the issue, an evaluation of Flight Attendant duty schedules, and a comparison of those schedules to the current regulations regarding rest concluded that Flight Attendants are "experiencing fatigue and tiredness and as such, is a salient issue warranting further evaluation." They also stated, "not all the information needed could be acquired to gain a complete understanding of the phenomenon/problem of Flight Attendant fatigue." The report recognizes fatigue as a problem, acknowledges that the very limited 6–8 month time frame the researchers were given by the FAA to conduct the study was not adequate, and clearly stated that a more meaningful, detailed study needed to be conducted, including surveys and research. Follow-on research began in 2007 and resulted in six additional reports.

The October 2011 report, *Flight Attendant Fatigue: A Quantitative Review of Flight Attendant Comments*, concluded that long duty days, consecutive duty days, length of layovers, long delays, breaks, and nutrition were issues of concern.

SUMMARY: 10 HOURS MINIMUM REST FOR FLIGHT ATTENDANTS IS A SCIENCE-CONFIRMED SAFETY ISSUE

Confirmed Safety Risk

Fatigue studies commissioned by Congress and conducted by the Civil Aeromedical Institute (CAMI) confirm Flight Attendant *fatigue exists and the best way to combat this fatigue is to increase rest*. This is an aviation safety loophole that must be closed, but it is also a Flight Attendant health issue and an issue of equality. Pilot minimum rest is 10 hours and cannot be reduced. Flight Attendants need the same minimum rest rule.

Currently the minimum rest requirement for Flight Attendants is a short 8 hours between 14 hour duty periods. This "rest period" often includes deplaning passengers, exiting the airport, securing local transportation to a rest facility (hotel), getting a meal, preparation for bed at night, waking in time to board transportation back to the airport, transiting the airport and preparing to start the workday. This means 4–5 hours sleep, if all goes well, between 14 hour scheduled duty periods.

Equal Minimum Rest Decades in the Making

In 1994, the FAA issued guidance that Flight Attendants should have the same rest as pilots. When pilot minimum rest was increased in 2013, Flight Attendants were left behind with an 8-hour minimum rest requirement. Section 335 of the Act finally accomplishes the 1994 guidance, with 10 hours minimum rest and a Fatigue Risk Management Plan (FRMP) for Flight Attendants.

---

[2] Speech "Fatigue: The Flight Attendant Perspective" given by Candace Kolander, AFA–CWA Air Safety, Health and Security Coordinator at the 26th Annual International Aircraft Cabin Safety Symposium, February 2009.

Minimum Rest Doesn't Restrict Scheduling of Duty Days or Flight Time

While the pilot rules (FAR 117) included a complete overhaul of duty and rest requirements, Flight Attendants are only seeking an equal minimum rest period of 10 hours. Don't confuse this issue with the rules in place for pilot scheduling. Those suggesting 10 Hours minimum rest will up-end Flight Attendant scheduling are purposely attempting to mislead the public. The language to address Flight Attendant fatigue is only changing the minimum rest—the top recommendation identified by the fatigue studies that confirm Flight Attendant fatigue exists. Rest does not change duty days, maximum flight hours or other scheduling functions. But the Act does provide equal minimum rest with the flight deck for Flight Attendants who hold a physical, front-facing, demanding job that surely requires, at minimum, equal rest with our flight deck counterparts.

The United States lags behind other countries in equalizing rest regulations for both pilots and Flight Attendants. In 2009, the International Civil Aviation Organization (ICAO) made recommendations introducing new definitions and amendments with respect to the limits for flight time, flight duty periods and rest periods for fatigue management.[3] The ICAO recommendations help ensure an equal rest and safety from nose to tail.

Safety is at risk as long as fatigue exists. Flight Attendants, aviation's first responders, must be adequately rested and free from fatigue to respond to in-flight emergencies such as firefighting, decompression, medical emergencies, security threats, sexual assault, and passenger conflicts. In the event of an emergency landing, fatigue must not interfere with a successful evacuation.

Implementing the 10 hour irreducible minimum rest is about safety, health and equality.

SECONDARY BARRIERS

Another bipartisan provision that needs to be properly implemented is the requirement for secondary cockpit barriers. Section 336 of the bill requires the FAA to issue an order within one year to ensure that all newly manufactured aircraft delivered to passenger air carriers include these important security barriers. Already, efforts are underway to water down this mandate by claiming the provision should only apply to new models of aircraft that require a new type certificate. A "new type" standard would only cover aircraft that are *not currently in production* and require wholesale redesigns. This would delay application of this post-9/11 security requirement for decades. For this reason, Congress' language is specific to exclude any mention of new type certificates or models and instead deliberately chose secondary barriers to apply to all newly manufactured passenger aircraft off the production line after the specified date in the law. Any FAA action that does not mandate secondary barriers on all newly manufactured aircraft within one year will undermine the purpose of the provision and jeopardize a key aviation security protocol.

In response to the slow response to installation of secondary barriers, a new bicameral, bipartisan legislation, S. 911 (Casey-PA) and HR. 911 (Fitzpatrick-PA), has been introduced calling for installation of secondary cockpit barriers on all Part 121 commercial aircraft.

REALISTIC SEAT PITCH AND EVACUATION CERTIFICATION IN CURRENT CABIN ENVIRONMENT

Seat pitch continues to shrink in the aircraft cabin as airlines try to squeeze as much revenue out of each flight as possible. At the same time, passengers are on average are significantly larger in body mass; electronics can become projectiles and charging cords can obstruct egress; and more passengers are in the cabin than ever before with more baggage. Meanwhile, Flight Attendant staffing is at FAA minimums based on standards set only for aircraft evacuation, not current-day duties and responsibilities of aviation's first responders. Flight Attendants are left to manage the frustrations of passengers jammed into ever-shrinking space. This is not an issue the market will fix. Safety needs to provide a bottom line.

Some problems with shrinking seat pitch and seat size:

- Questions about safe evacuation
- Increase passenger angst leads to air rage and passenger disruptions
- More passengers, more bags and conflict over bag storage
- Difficult to provide safe passage for passengers with disabilities

[3] International Civil Aviation Organization (ICAO), *Annex 6, Operation of Aircraft, Part I: International Commercial Air Transport—Aeroplanes Ch. 9.6, Attachment A*, Ninth Edition (July 2010)

Flier's Rights, a passenger rights group, filed a petition with the FAA to call for rule making that would set a minimum seat pitch which airlines could not decrease. The FAA refused to move forward with rule making. The response from the FAA (see Appendix 2), in summary, was that seat pitch has no impact on passenger evacuation and that seats are designed for safe collapse with seat pitch as low as 27 inches. Without a science-based approach and stakeholder involvement, it is clear that this FAA is not prepared to provide minimum seat pitch standards that will help conditions in the cabin and may in fact further harm conditions.

In 2017 legislation was introduced in both the House (H.R. 1467) and Senate (S. 596) to address cabin seat pitch. The legislation is referred to as the SEAT Act of 2017. There were three key components in the bill:

1. "establishing minimum standards for space for passengers on passenger aircraft, including the size, width, and pitch of seats, the amount of legroom, and the width of aisles on such aircraft for the safety and health of passengers"
2. "requiring each air carrier to prominently display on the website of the air carrier" the seat size, pitch, amount of leg room, and width of aisles.
3. Stakeholder involvement and science-based approach—"the Administrator shall consult with the Occupational Safety and Health Administration, the Centers for Disease Control and Prevention, passenger advocacy organizations, physicians, and ergonomic engineers."

This SEAT Act language was included in the Act. However, in the conference process, however, items 2 and 3 of the SEAT Act were removed. The final Act stripped-down seat pitch language is in Section 577 of the Act.

The good news is that the FAA Reauthorization Bill also contains a provision in Section 337 to require the FAA conduct "a study on evacuation certification of transport-category aircraft used in air transportation" and to report back to Congress within one year. This provision includes consultation with the NTSB and all stakeholders including our unions. The FAA convened the first teleconference for this issue just last week, with an in-person meeting yet to be scheduled.

Congressman DeFazio said in a floor speech before the Act was passed that the FAA should not move forward with Section 577 until completing Section 337 on evacuation certification standards. Congressman Steve Cohen (one of the original lawmakers to introduce the SEAT Act) also encouraged the evacuation study to be used as the basis for setting seat pitch.

T&I Committee Ranking Member Peter DeFazio stated, "We have to see whether or not we can actually meet the standard of evacuating a plane in 90 seconds as budget carriers and others cram more and more seats in that are narrower and narrower, less and less pitch. Can we still meet those standards? We are going to find out whether we can or not. A provision later in the bill inserted by another of my colleagues, Steve Cohen, will require the FAA, particularly if instructed by this study, to set minimum pitch width and length requirements for passenger seats."[4]

Congressman Steve Cohen stated, "Americans have become larger. Seats have become smaller. They have become more dangerous. There needs to be a study on the width and the pitch of seats to make sure that they are safe to be evacuated within the approximate 90 seconds they are supposed to be able to evacuate a plane."[5]

AFA continues to urge the FAA to conduct the Evac Certification standards study. We also referenced the very real need to do this in our testimony on June 19, 2019 at the House Committee on Transportation & Infrastructure Subcommittee on Aviation hearing on the "Status of the Boeing 737 MAX: Stakeholder Perspectives."[6]

CUSTOMER SERVICE ASSAULT

Our passenger service brothers and sisters represented by the Communications Workers of America (CWA) have worked hard to address the decades' long problem of assault on the job from passengers which was partially addressed in the FAA Reauthorization. This is not a new issue. In fact, because of the problem, Congress made assault of passenger service agents a felony in 2001. In 2017, the Department of Justice and the Department of Transportation reiterated that the statute making assault a felony did indeed apply to passenger service agents. However, passenger service agents continue to experience assault on almost routine basis and have been frustrated by the failure of carriers to prepare for assault situations and especially to develop clear protocols in how to handle assault occurrences.

---

[4] Representative DeFazio, Congressional Record September 26, 2018, pg. H9034

[5] Representative Cohen, Congressional Record September 26, 2018, pg. H9037

[6] Written testimony of Sara Nelson, "*Status of the Boeing 737 MAX: Stakeholder Perspectives*.", U.S. House of Representatives Hearing of the Subcommittee on Aviation, June 19, 2019.

The recent FAA Reauthorization bill took further action on this ongoing issue by directing carriers to develop and implement assault incident protocol by January of 2019 as well as a study by the GAO. I'm happy to report that the GAO report was finalized and released recently. The report clearly states that assault of passenger service agents both verbally and physically is indeed an ongoing problem[7]. It further reinforced that the recent FAA Reauthorization mandate for carriers to develop and implement assault incident protocols are needed. We are pleased to report that American Airlines, with which CWA passenger service representatives have been working, is close to formally implementing their protocol and we are hopeful that other airlines are doing the same with their passenger service agents.

CWA does remain concerned however that proper passenger notification in terms of prominent and visible signage that assaulting a passenger service agent is a felony is not happening. We believe that this is necessary and needs to be part of the protocols that are being developed. We believe that this must be part of any process. In addition, unlike the law enforcement personnel interviewed in the GAO report, we think that coordination between various law enforcement agencies and personnel is lacking. More must be done in this area to ensure that greater collaboration and reporting happens where jurisdiction is shared or in question. We believe it is important for this Committee to exercise its oversight responsibilities and push the FAA to ensure that all airlines are abiding by these requirements.

AIR RAGE: Almost all of the 104 airline customer service agents surveyed for a new GAO report said they had been verbally harassed by passengers, and about 10 percent said they'd been physically assaulted by passengers in the past year.

CONCLUSION

On September 19, 2019 the U.S. House of Representatives passed a stopgap spending measure to fund the government through the end of November. If passed by the Senate, we will avert another Government Shutdown in September. However, we are once again setting up a cycle of short-term funding measures. This will further slow work on the implementation of the Act. The Senate Homeland Security Committee estimates that the 35-day Government Shutdown cost the DOT 2,413 years in worker productivity[8]. Further, the dedicated work of federal employees deserves our respect and support with long-term funding measures.

In addition, Congress should pass bills like H.R. 1108, the Aviation Funding Stability Act of 2019—passed out of this committee in March—to ensure the FAA receives funding in the event of a government shutdown.

I would like to again thank the Chairman, the Ranking Member and the Members of this Subcommittee for this opportunity to testify. We are proud of our work as aviation's first responders and the last line of defense in aviation security. We appreciate your attention and diligent efforts to ensure we have the proper tools to perform our work and keep U.S. aviation safe.

---

[7] Information on Passenger Assaults against Airline Customer Service Agents at Airports GAO–19–683, Published: Sep 17, 2019. Publicly Released: Sep 17, 2019.

[8] Shutdown cost DOT, DHS thousands of years in lost productivity, POLITICO Pro, https://t.co/O3478qNmFc?amp=1, September 17, 2019

APPENDIX 1

SEPTEMBER 6, 2019.

Investing in you

Hi everyone,

Ed announced last week not only a well-deserved raise, but also our commitment to significant investments that we will make to improve your work experience.

Today, I'm excited to announce that we are making significant investments over the next few years to address many of the challenges that you have raised to your leaders and the EIG, and through the employee survey and FASS. While we're just at the beginning of rolling out the work, I'm very pleased about introducing these initiatives, which include:

1. Reducing schedule values by hiring year-round at maximum capacity
2. Introducing a monthly override program
3. Implementing 10-hour rest—release to report—ahead of an FAA requirement
4. Blocking aft seats on three additional fleet types for your safety during turbulence
5. Improving catering performance

REDUCE SCHEDULE VALUES BY HIRING 2,500–3,000 FLIGHT ATTENDANTS

We've heard you—schedule values are too high and the summer rush now stretches from early spring through late fall. In response, we will limit peak system schedule values to 83 hours or less (from 86 hours this year). We believe 83 hours is a good balance between providing flexibility and not allowing your hours to fall low enough in winter months to negatively affect your income.

Move to year-round hiring at maximum levels

- We planned to hire 1,800 flight attendants for the forecasted 2020 network schedule. Now we will hire approximately 2,500–3,000 flight attendants in 2020 in order to reduce schedule values. This also will have positive effects on base growth, A-day holder seniority and schedule flexibility. This will be the largest number of flight attendants hired in a single year in our company's 95-year history.
- This unprecedented hiring will give us the breathing room that is needed in order to bring schedule values down.

This kind of movement cannot be achieved overnight, and we appreciate your patience as we work to accomplish this goal. We're confident this investment will help us move toward a better work-life balance. As we progress on this journey and consistently have system schedule values at or below 83, we can reevaluate this number.

INTRODUCE A MONTHLY OVERRIDE PROGRAM

The EIG has identified a monthly override as a top issue. We support the introduction of a monthly override program and will partner with the EIG on finalizing the specifics and will share those details soon.

PROACTIVELY IMPLEMENTING 10-HOUR REST ON JAN. 31

Layover rest has been on our radar since the EIG elevated the issue in 2017 shortly before the passage of the 2018 FAA Reauthorization Act. So while the FAA and DOT have yet to set a deadline for airline implementation, we are listening to your feedback and enacting this new policy ahead of any requirement or deadline. This rule requires a guaranteed minimum 10 hours of rest from release to report, that cannot be reduced under any circumstances.

Implementing the 10-hour rest rule will affect trip construction as we have previously communicated. As we work to finalize the plan, we'll share more details with you about our approach to implement this rest on a regular basis.

EXPANDING SEAT BLOCKING FOR IMPROVED SAFETY

As part of our continued investment in your personal safety, we are expanding the current 767 seat block policy to other fleet types, including the A321, A332 and A350. We look forward to sharing the implementation timeline in the coming weeks.

We appreciate the EIG and EIG HSS committee for pushing this change forward on your behalf and thank all of you who have reported turbulence events. Turbulence injuries are our fastest growing injury category and your reports provide us with the important data we need to be able to drive changes to keep you safe.

EVOLUTION OF CATERING PERFORMANCE

We continue working hard to address catering issues such as missing items, broken carts and catering quality to set a new standard for how everything gets done right. I want to outline some of the initiatives we're working on to create the Delta catering standard as well as to improve your everyday experience as quickly as possible:

Standardizing processes to improve station performance

- We're working with each of our caterers to improve performance tracking by introducing consistent metrics and holding all of our partners accountable for reporting out on their station's performance. We also want to standardize the layout and processes in each kitchen so when you walk in you know it's a Delta kitchen with a Delta way of running that kitchen.

Tracking our carts to improve your safety and increase the accuracy of provisioning

- We have worked to improve the overall condition of our cart fleet by identifying and removing damage-prone carts from our aircraft so they're no longer a hazard or inconvenience to you. The next step is electronic cart tracking, which will give us full transparency to all of our carts—where they are and if they are broken. We plan to introduce this technology next year, and it will also eventually enable us to know what's on the carts and if you have everything you need, where you need it.

Introducing airside commissaries

- In an effort to provide faster, more consistent catering for you we're moving provisions closer to you and the aircraft. We'll start by testing this concept in ATL on beverage only flights in September and hope to expand to more hubs in 2020.

Using IMCR to launch a new catering handoff

- The handoff between catering and flight attendants is a common source of frustration. Unclear paperwork and rushed loading, at a very busy time in the aircraft, are key contributing factors to missing items. This November we will pilot a new visual map of the galley showing the location of provisions and providing a clear handoff process with catering.

All of the above represent significant and necessary investments, but we're not stopping there. We continue working hard, in partnership with the EIG, to enhance IFS tools and technology; improve the reliability of our wheelchair program by overhauling technology and processes; refresh flight attendant lounges and more. And with EIG prioritization coming up later this month, there are additional improvements to look forward to.

My goal is to make sure that our flight attendants are inspired to have a fulfilling career at Delta as well as to lead the world in safety and on-board service.

Thank you again for your engagement and ideas. Your commitment and care for our customers and one another inspires me every day.

APPENDIX 2

U.S. DEPARTMENT OF TRANSPORTATION,
FEDERAL AVIATION ADMINISTRATION,
AVIATION SAFETY,
800 INDEPENDENCE AVE., SW,
Washington, DC, July 2, 2018.

Mr. PAUL HUDSON,
President,
FlyersRights.org, 1440 G Street NW, Washington, DC 20005

DEAR MR. HUDSON:

This letter is in response to the July 28, 2017 decision of the United States Court of Appeals for the District of Columbia Circuit and supplements our responses dated February 1, 2016 and March 14, 2016. The court remanded your petition for a "properly reasoned disposition of [your] safety concerns about the adverse impact of decreased seat dimensions and increased passenger size on aircraft emergency egress."

In accordance with 14 CFR § 11.73, the FAA considers the following criteria when making a decision about whether to amend current regulations based on a petition for rulemaking:

1. The immediacy of the safety or security concerns you raise;
2. The priority of other issues the FAA must deal with; and
3. The resources we have available to address these issues.

After reconsidering your request in accordance with the Court's instructions to address the first of these criteria, we have again determined that your request does not merit rulemaking at this time.

IMMEDIACY OF SAFETY OR SECURITY CONCERNS.

While your petition asserts that seat width and pitch, in conjunction with passenger size, raise a safety concern, the FAA has no evidence that there is an immediate safety issue necessitating rulemaking at this time. The FAA has no evidence, and nothing in your petition, or the letter you submitted on April 2, 2018, or the "Post-Remand Submission" you submitted on June 1, 2018, demonstrates that current seat dimensions (width and pitch) hamper the speed of passenger evacuation, or that increasing passenger size creates an evacuation issue.

The reason that seat width and pitch, even in combination with increasing passenger size, do not hamper the speed of an evacuation is the timeline and sequence of the evacuation. The time it takes passengers to get out of their seats, even if those seats are relatively narrow and close together, is less than the time it takes for the emergency exits to begin functioning and for the line that begins forming in the aisle to clear. This is demonstrated during evacuation tests, several videos of which are now available for public review by being placed in the docket for your petition.

An evacuation begins when ordered by the flight crew or a flight attendant, or on passengers' own initiative, when the aircraft comes to a stop. The flight attendant must then unbuckle his or her seat belt, stand up, move to the exit, look outside to confirm that the area around the exit is safe, open the door, and verify that the escape slide, if applicable, has deployed and is usable. All of these flight-attendant actions take a minimum of about 10 seconds under the ideal conditions of a demonstration test, and are likely to take significantly longer in an actual accident. Declaration of Jeffrey C. Gardlin, attached ("Gardlin Declaration"), at para. 10. If responsibility falls upon a passenger to open an exit, especially an overwing exit that must be discarded, this time can be even longer. A line then develops at each exit, because passengers can get to the exit faster than they can get through the exit. Passengers in an actual accident or incident likely will experience a delay of more than 10 seconds before being able to use an emergency exit. They can use this time to get out of their seats, and then either enter the aisle or wait to enter the aisle. The key is that the time it takes to stand up from one's seat, even if the seat is relatively narrow and installed at a 28-inch pitch, and even if the passenger is relatively large, is less than the time it will take to get the emergency exits opened and functional and for the line that begins forming in the aisle to clear. Id.

This timeline has been repeatedly demonstrated during evacuation tests. Airplane manufacturers typically film these evacuation tests. While the FAA receives and preserves general information about each test, such as whether it was successful and conducted under the required conditions, the FAA does not retain videos of evacuation tests and such data are considered to be proprietary by the manufactur-

ers. However, airplane manufacturers have recently provided the FAA with videos and statements about their evacuation tests and agreed to allow the FAA to make these videos and statements available for review by you and the public. The FAA will place this information in the docket for your petition. These videos of recent tests show that passengers take no more than a second or two to get out of their seats, even from seats as narrow as 16 inches wide and installed as closely as at a 28-inch pitch. Gardlin Declaration at paras. 10, 18, and attachments.

The FAA has no evidence that a typical passenger, even a larger one, will take more than a couple of seconds to get out of his or her seat, or that such time will approach the time necessary to get the emergency exits functional. The FAA also has no evidence that current seat sizes are a factor in evacuation speed, nor that current seat sizes create a safety issue necessitating rulemaking, because the time to stand up from one's seat is less than the time it will take for the exit door to be opened and, for most passengers, for the aisle to clear. Moreover, the FAA does not expect seat pitch to drop so significantly from current levels that it meaningfully affects evacuation speed. Gardlin Declaration at paras. 21, 22, and 27.

Regarding seat pitch, although some airlines have operated with less than 30-inch average seat pitch for decades, seat pitches below 30 inches are still not common today. Gardlin Declaration at para. 21. Also, seat pitch is unlikely to go below 27 inches under current technology and regulations. FAA regulations (14 CFR § 25.562(c)(8)) require that seats not deform in a crash to the point that they would impede rapid egress. Advisory Circular 25.562–1B, Appendix 2, discusses the FAA's application of this requirement, but it effectively results in a minimum of 9 inches between the front of one seat (the front of the seat cushion) to the nearest point on the back of the next seat. Gardlin Declaration at para. 21. Seat bottoms are typically approximately 18 inches front-to-back, and have been for many years. Id. Thus, seat pitch is unlikely to go below 27 inches (9+18), in order to maintain compliance with § 25.562(c)(8), even if a carrier could persuade passengers to purchase tickets for flights with seat pitches that low.

Turning to your particular safety concerns, the FAA has no evidence that your concerns raise an immediate safety issue. Nothing presented in your petition demonstrates that decreases in seat pitch and increases in passenger girth create an immediate safety issue with regard to passenger evacuation that necessitates rulemaking.

Safety Concern: Evacuation Testing.

The first safety issue alleged by the petition (p. 6) states that evacuation tests have not been run in airplanes with seat pitch of less than 31 inches. This is not true. The comments of the FAA employee that you cited referred to studies that the FAA itself has conducted, not to evacuation tests conducted by airplane manufacturers for certification. Gardlin Declaration at footnote 3.

Safety Concern: Seating Capacity.

The second safety issue alleged by the petition (p. 6) is that the tests are conducted with fewer passengers than can be carried on the aircraft. This is also not true. As noted in the FAA's first response to your petition (p. 2), the number of passengers substantiated for evacuation becomes the certified maximum number of passengers that the airplane can carry in operation. 14 CFR § 25.803.

Safety Concern: Human Panic.

Your petition states (p. 7) that "a decreased amount of space between seats would likely increase ... panic, and cause delays in evacuations during an emergency." Your petition offers no support for why a lower seat pitch would increase human panic. And the evidence is to the contrary, as discussed below.

First, numerous successful passenger evacuation tests have been conducted with 28-inch seat pitch, and the FAA did not observe any indication that seats installed at that pitch affect passenger behavior. Gardlin Declaration at para. 24. In addition, there have been several actual accidents and incidents in recent years in which the passengers successfully evacuated in the presence of an actual or potential post-crash fire. Gardlin Declaration at para. 25.

The FAA and other civil aviation authorities have conducted research testing to assess the effects of "panic-like" behavior during evacuations. These tests simulate the urgency of panic by offering passengers a financial incentive to be among the first out of the emergency exits. From these, the FAA learned the effects of panic-like behavior on evacuation. The FAA learned that performance by test participants is largely driven by whether they paid attention to evacuation instructions. The FAA has no data supporting speculation that current seat widths or pitches increase human panic or otherwise slow evacuations. Gardlin Declaration at para. 24.

Safety Concern: Passenger Demographics.

Your petition claims that emergency evacuation demonstrations do not consider human factors, such as older passengers, passengers with children, or passengers with disabilities, who may need more time to evacuate. This is true for several reasons, but it does not invalidate those tests.

First, evacuation tests are conducted with volunteers and introduce elements that would increase the safety risk to the test participants. Injuries, even serious ones, occur during emergency evacuation demonstrations. Thus, the FAA has chosen not to require elderly passengers or children in demonstration tests after learning that they are more likely to sustain injury. Gardlin Declaration at para. 13. Second, actual emergency evacuations are subject to a high degree of variability, such as the amount of damage to the airplane, and not every variable can be safely and reliably replicated. Gardlin Declaration at para. 14. Therefore, a key purpose of the 90-second evacuation test is to provide a repeatable comparison of the airplane design to a specific standard, not to simulate every potential variable that may occur in an evacuation such as the amount of airplane damage and the diversity of human ages and abilities. These variables are addressed by several other regulations, including regulations prescribing minimum widths of aisles, cross-aisles, and passageways; minimum sizes of exits; requirements for emergency lighting and exit marking; and the minimum number and location of exits, at 14 CFR §§ 25.815, 25.813, 25.807, 25.812, and 25.811 respectively. While the evacuation tests required by the FAA do not specifically take into account changes in the size of passengers, such tests continue to be conducted with volunteers from the general population who have a variety of sizes and weights. Gardlin Declaration at para. 14.

Safety Concerns Raised by Other Commenters.

In response to your petition, one commenter stated that current seat spacing made it "necessary to climb onto [her] seat to get out." Another commenter asserted that, given current seat spacing, "[i]n an emergency, there is no way we would have been able to get to an exit row in less than three or four minutes." As noted above, the videos of evacuation tests that the FAA received from airplane manufacturers show that it is not necessary to climb onto one's seat to get out, and that passengers take no more than a second or two to get out of their seats, even from seats as narrow as 16 inches wide and installed as closely as at a 28-inch pitch.

Another commenter said that, given his height, "it is physically impossible for [him] to assume the 'crash position'" in a regular economy-class seat. Decreased seat pitch, however, does not prevent passengers, even taller ones, from assuming a brace position, because an acceptable brace position is leaning forward with your head on the back of the seat in front of you. Gardlin Declaration, footnote 7.

OTHER TWO CRITERIA.

Neither your petition nor the Court's decision challenged the FAA's decision regarding its two other criteria for rulemaking (the priority of other issues the FAA must deal with, and the availability of rulemaking resources). The FAA continues to regard the issues and requested actions from your petition as having a lower priority than the other issues before the FAA, and, given the FAA' s limited rulemaking resources, those resources will be dedicated to higher priorities, as indicated in the Department of Transportation's Regulatory Agenda.

Although we are declining to initiate rulemaking based on your petition, your comments and arguments for the proposed rule change will be placed in a database, which we will examine if we consider future rulemaking in this area. If the FAA does pursue rulemaking in this area in the future, you would be able to track it through one of the two following websites:

- For significant rulemakings, you can find the status on the Department of Transportation's (DOT) website (http://www.dot.gov/regulations/report-on-significant-rulemakings).
- For non-significant rulemakings, you can find the status on the DOT's semi-annual regulatory agenda, through the Office of Management and Budget's (OMB) Office of Information and Regulatory Affairs' (OIRA) Unified Agenda website (http://www.reginfo.gov/public/do/eAgendaMain).

For the reasons stated herein, we continue to decline to initiate rulemaking based on your petition.

Sincerely,

DORENDA D. BAKER,
Aviation Safety, Executive Director, Aircraft Certification Service

Enclosure

Mr. LARSEN. Thank you.

I now turn to Captain Fox, representing ALPA, for 5 minutes.

Mr. FOX. Thank you, Chairman Larsen, Ranking Member Graves, Chairman DeFazio. Thank you for that last question to Captain Elwell.

Specifically, the FAA does have what they need right now to implement the rule. They just have not implemented the rule on secondary barriers. That work was done in 2009 by a regulatory piece that they used for an advisory committee. The work is done. It covers 50 seats up to 777s and 787s. They are just stalling and not implementing the rule.

I am proud to represent more than 63,000 members of the Air Line Pilots Association, which is the world's largest nongovernmental aviation safety organization.

We commend this committee for its leadership in guiding Congress to pass a strong, safety-focused, and forward-thinking FAA reauthorization.

The true test of success, however, will be how and when the executive branch implements these life-saving advances. Frankly, we are deeply dismayed by the lack of follow-through.

A few weeks ago, the United States recognized the 18th anniversary of the attacks of 9/11. Mandating the installation of secondary barriers is one of the most important, cost-effective security enhancements identified after the attacks.

In the reauthorization, Congress called for the FAA to issue a rule mandating these barriers for newly manufactured passenger aircraft by October 5, 2019. Rather than issuing the order, as Congress intended, the FAA has bowed to a blatant stall tactic promoted by special interest, and created an Aviation Rulemaking Advisory Committee, which, like I just said, they have already done in 2009.

Secondary flight deck barriers are already protecting U.S. airlines. I know, because I have flown the Boeing 757 at United, equipped with these security devices. The standard established at the FAA's request in 2009 is effective; no more study is needed.

ALPA thanks the 110 U.S. House Members, including lawmakers on this committee, who signed a letter leaving no doubt that they expect the FAA to meet their deadline.

We have the data. We know what works. It is time to implement the law.

In addition, the FAA reauthorization also prescribed the automatic acceptance of voluntary safety reports obtained through the Aviation Safety Action Program, or ASAP. ASAP is a nonpunitive safety reporting program that allows frontline employees, including pilots, to voluntarily report safety issues.

Right now, weeks pass before these reports are reviewed. Requiring their automatic acceptance means safety information will be reviewed more quickly, potentially preventing accidents. We have been waiting 3 years for the FAA to publish an advisory circular requiring automatic acceptance of these reports.

Again, we know it works. Let's implement the law.

In addition, the reauthorization directs the FAA to update its requirement for airline pilots to wear oxygen masks above certain altitudes. Currently, if one pilot leaves the flight deck while above

flight level 250, the other was must wear his or her mask. Because of hygiene concerns and a priority on using masks only in emergencies, the International Civil Aviation Organization established an altitude standard of above flight level 410, a change that ALPA supports. The FAA reauthorization directs the FAA to issue new regulations consistent with the ICAO no later than October 5, 2019.

Again, we know it works, and we urge the FAA and the U.S. airlines to act.

Airline pilots are pleased that the FAA reauthorization maintains life-saving pilot qualification and training regulations. Thanks to this committee's leadership, these rules have helped ensure that the United States has not had a single fatality in part 121 passenger flight operations due to a pilot training issue in the past decade. ALPA pilots will spare no effort in fighting any attempt to weaken these requirements.

Through ALPA's affiliation with the International Federation of Air Line Pilots' Associations, we are proactively engaging ICAO to establish a review of pilot qualification and training standards, given today's complex operating environment. We know, as do our passengers, that the presence of at least two fully qualified, highly trained, and adequately rested pilots on board our airliners contributes to a proactive risk-predictive safety culture, and is a major reason why the U.S. air transportation system is so safe.

Clearly, Congress has the interest of the traveling public at heart in passing this FAA reauthorization. Others should follow your lead and implement as it is intended. We know that, for our passengers, our crews, and shippers, every day of delay is one too many.

Thank you for this opportunity for me to be here today.

[Mr. Fox's prepared statement follows:]

Prepared Statement of Captain Bob Fox, First Vice President, Air Line Pilots Association, International

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to testify on the Federal Aviation Administration's (FAA's) implementation of the requirements of the FAA Reauthorization Act of 2018. The Air Line Pilots Association, International (ALPA), represents more than 63,000 professional airline pilots flying for 35 airlines in the United States and Canada. ALPA is the world's largest pilot union. We are the recognized voice of the airline piloting profession in North America, with a history of safety and security advocacy spanning more than 85 years. As the sole U.S. member of the International Federation of Air Line Pilots' Associations (IFALPA), ALPA has the unique ability to provide airline pilot expertise to aviation safety and security issues worldwide, and to incorporate an international dimension to safety and security advocacy.

As the first vice president and national safety coordinator for the world's largest non-governmental aviation safety organization, I can report that ALPA remains keenly focused on ensuring that the FAA implement these key legislative requirements as intended by Congress. It is our organization's top priority to stay focused on continual improvement and judicious oversight to ensure that air travel is as safe and secure as humanly possible.

By way of background, I am a former Navy fighter pilot and 23-year airline pilot. I currently fly for United Airlines. I can tell you that achieving the highest standards of safety and security has been a personal commitment throughout my career. I can also tell you that all airline pilots share my dedication to advancing aviation safety and security, and that these principles have been the foundation of ALPA's work for more than 85 years.

While aviation accidents are increasingly rare, ALPA has advocated for and helped develop a forensic approach to accident investigation designed to identify every factor involved in an airline accident and develop corrective actions to address them, with the sole objective of preventing similar accidents from occurring in the future. In the U.S. airline industry, we now have a more risk-predictive model to collect data, evaluate it, identify mitigations, and implement them to make a safe system even safer.

Because of this commitment, ALPA is fully informed and involved in efforts to bring the Boeing 737 MAX safely back into service following the completion of the current FAA process. I have led our Air Safety Organization pilots and staff in collaborating with all appropriate regulatory authorities and stakeholders in the United States, Canada, and across the globe.

ALPA has offered our airline pilot perspective on the issues related to the accidents, including the process and procedures used to certify aircraft in the United States. We have been in communication with Boeing, the FAA, the National Transportation Safety Board, and airlines, as well as with the U.S. Department of Transportation Special Committee and international bodies. We pledge to continue to be a resource for this Committee as well.

OVERVIEW

Based on current statistics, 14 Code of Federal Regulations (CFR) Part 121 airlines carry approximately 900 million passengers and 18 million tons of cargo annually. Notably, U.S. passenger airlines operated under 14 CFR Part 121 have had only one passenger fatality resulting from an accident since 2009. This safety record is not due to luck, but rather to the efforts of the aviation industry and our government partners, and it is due to the efforts of Congress and this Committee, in particular. During the 20 years prior to the passage of the Aviation Safety and Federal Aviation Administration Reauthorization Act of 2010, the U.S. passenger airline industry lost approximately 1,100 passengers in aircraft accidents. Since the passage of that bill, there has not been a single passenger fatality due to "pilot error."

Strikingly, since 2009, there have been 93 fatal passenger airline accidents around the rest of world, which includes more than 4,700 fatalities. The U.S. passenger airline record is truly remarkable. For that reason, we believe that the most important work this Committee can accomplish is to continue to ensure the United States maintains the highest safety levels in the world and continues to lead by example in all areas of aviation, including aircraft certification, flight crew training and licensing, crew-duty and rest requirements, airport design standards, the safe introduction of new entrants, safety data analysis, and many others. This comprehensive safety mindset allows passengers to board a 14 CFR Part 121 passenger airline and know, with a very high degree of confidence, that they will get there safely. From day one in 1931, ALPA has maintained our motto of "schedule with safety." It hasn't changed; *safety is still our top priority*.

This Committees' continued focus on safety is to be commended, and we thank you for using your time and resources—including today—to shine a spotlight on safety. Unless we keep airline safety the top priority, we risk digression and an increase in accidents, which impact our ability to make progress on other important aspects of aviation such as investments in increasing airspace capacity and the introduction of new types of aviation and space operations into the national airspace system.

FAA REAUTHORIZATION IMPLEMENTATION

In October 5, 2018, the Federal Aviation Administration Reauthorization Act of 2018 became law (P.L. 115–254). The members of this Committee demonstrated significant leadership to ensure that the legislation ultimately became law, and you are to be commended for your efforts to advance aviation safety. This law, if implemented appropriately and as Congress intended, will improve the air transportation system for years to come.

RETENTION OF CONGRESSIONALLY MANDATED FIRST OFFICER QUALIFICATIONS

In 2018, Congress retained the current airline pilot training and qualification requirements that are the law of the land. ALPA was pleased with both this Committee and Congress for making this lifesaving and wise decision. The best and most important safety feature of any airline operation is at least two skilled, well trained, fully qualified, highly experienced, and adequately rested professional flightcrew members. With a solid foundation of training and experience, pilots are essential in maintaining the safety of our system and ensuring that aviation safety continues

to advance. Several regional airline accidents from 2004 to 2009 identified numerous training and qualification deficiencies that ultimately led to Congressional action and regulatory changes that significantly improved airline safety. The last of these accidents occurred February 12, 2009, near Buffalo, N.Y. Fifty lives were lost—49 in the aircraft and one on the ground. This accident was a watershed event for the airline industry and aviation safety, resulting in regulations that enhanced pilot training, qualification, flight experience requirements, and the implementation of science-based flight, duty, and rest requirements.

The pilot training and qualifications regulations specifically require that all airline pilots flying under 14 CFR Part 121 must hold the air transport pilot (ATP) or restricted ATP (R–ATP) certificate. The R–ATP certificate pathway can be obtained with fewer flight hours' experience than the ATP if the pilot applicant receives integrated academic and flight training from the military or an accredited aviation college or university.

Today's training, qualification, and flight experience regulations emphasize significantly greater focus on academics and instruction, areas of knowledge, and flight experience in various weather and operational situations. The rules also require a type rating in the aircraft to be flown for the airline if operated in 14 CFR Part 121 service and increased experience in multiengine aircraft, among other numerous safety improvements. The FAA made a specific mention of the importance of academic training when it published the final rule, and how the accredited academics along with ground and flight training was necessary to qualify for a reduction in hours. We applaud this Committee for its leadership in preserving the training and qualifications requirements last year and urge you to continue to do so. We are confident that lives have been and are being saved because of your steadfastness on this issue. The international aviation community, through the International Civil Aviation Organization (ICAO), would benefit greatly by adopting a similar philosophy, and we have asked ICAO to review current training, qualification, and flight experience standards.

Safety Regulations vs. Bad Airline Economics

Despite the clear message sent by Congress in 2018, there are some people and organizations who want to address business-related industry issues by reducing the requirements currently in place to obtain an ATP or an R–ATP. These changes would weaken the first officer qualification (FOQ) rules. They believe that rolling back provisions in P.L. 111–216 is the best way to fix their business challenges by widening the employment pool. We do not believe that those who are advocating for such measures are properly representing the issue of pilot availability, which is not pilot qualification requirements but an airline's attractiveness to the pilot community as an employer.

It is somewhat ironic that some who originally called for the changes in P.L. 111–216 have since become critical of the rules, arguing that the first officer qualifications have created a pilot shortage. Small communities which have experienced changes in the levels of airline services are also citing a pilot shortage. However, in both cases, there is no reliable data to support these positions and, in fact, the data says just the opposite.

In 2018, the FAA reported that it had issued 5,788 ATP certificates, which includes 1,762 R–ATP certificates. Our research revealed that the airlines hired approximately 4,600 pilots in 2018, which is considerably fewer than the number of pilots who became qualified to fly for the airlines that year. In fact, the number of ATP certificates issued by the FAA has been higher than the number of airline pilots hired for multiple years in a row. Clearly, the supply of pilots is currently keeping up with the demands. We realize that as the industry expands, more pilots will be needed. ALPA continues to promote the pilot profession far and wide, as a career of choice for men and women who enjoy all the benefits that the career has to offer.

PROMOTING THE PROFESSION AND INCREASING DIVERSITY

ALPA continues to promote the airline pilot profession. This includes a team of ALPA pilots who promote the profession at several large aviation events including Women in Aviation; the Organization of Black Aerospace Professionals; AirVenture in Oshkosh, Wisconsin, and the National Gay Pilots Association. Hundreds of ALPA pilots also promote the profession to students of all ages in thousands of schools nationwide. And for those college students who are in the midst of their flight training activities, we work alongside them to help prepare them for their future airline career. You can see some of our work at www.clearedtodream.org.

All of these activities to promote the profession have included a focused effort to diversify the pilot community. This includes our efforts to reduce barriers to entry

for minorities and women. We believe that there is no shortage of individuals who have the motivation, skills, and aptitude to serve as pilots for a U.S. airline.

We were pleased to support provisions in the Aviation Safety and FAA Authorization Act of 2018 promoting women in aviation. We wholeheartedly applaud the leadership by this Committee to include that section, and we strongly support the establishment of a board that will be solely focused on women in aviation. We look forward to engaging on this topic with our fellow industry colleagues. It is our hope the FAA will move quickly to name participants to this body so it can begin its important work without delay.

SECONDARY BARRIERS DELAYED

As we recently marked the 18th anniversary of the tragedy of 9/11, it is unfortunate that our airliners are still not adequately protected. Reinforced flight deck doors, mandated on passenger airliners by the U.S. Congress after the terrorist attacks of Sept. 11, 2001, do not provide a complete solution to the problem they were intended to resolve. There are times when operational necessity requires that the flight deck door be opened in flight. That period, however slight, represents a vulnerability that must be addressed. An installed physical secondary barrier, accompanied by standardized crew procedures for protecting the flight deck when the reinforced door is opened in flight, will significantly augment the intended benefits of the fortified door and other TSA-approved onboard protective measures, and add an important layer of security to prevent hostile takeover of the flight deck.

At the behest of this Committee, Section 336 of P.L. 115–254 requires "not later than 1 year after the date of the enactment of this Act, the Administrator of the Federal Aviation Administration shall issue an order requiring installation of a secondary cockpit barrier on each new aircraft that is manufactured for delivery to a passenger air carrier in the United States operating under the provisions of part 121 of title 14, Code of Federal Regulations."

However, with a deadline just a few weeks away, the FAA has inserted unnecessary roadblocks to stall progress on this important security provision. The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC), over ALPA's stated objections, forming a working group to establish recommendations to the agency on the implementation of the Section 336 directive.

Clearly, this is a move to slow down or otherwise not fulfill the obligations Congress placed on the FAA to implement the secondary cockpit barrier mandate. We would note that 110 members of this body, including many members of this Committee, transmitted a letter to the DOT unequivocally reinforcing the statutory intent of Section 336—specifically, the FAA must issue an order, without delay, by October 5, 2019, requiring the installation of secondary barriers on all new manufactured passenger aircraft off the assembly line. Failing to meet this requirement will delay implementation and evade congressional intent.

Some may argue there are questions about how to implement the legislation. However, these questions were answered years ago by request from the FAA to RTCA—a private, not-for-profit corporation—to develop secondary barrier system guidelines containing design characteristics, minimum performance criteria, and installation and certification guidance.

RTCA Special Committee 221 developed and published these guidelines in September 2011 as DO–329. This document provides the FAA with guidance needed to develop and issue a clear interpretation of 14 CFR Part 121.584 to its principal operations inspectors as they evaluate an airline's security procedures for compliance. It also provides airlines and manufacturers with approved performance standards that are suitable for meeting FAA aircraft equipment requirements for the production and installation of secondary barriers.

We urge the Committee to continue to monitor this situation, and to ensure that the FAA carries out its requirements under the law and issue the requirement for secondary cockpit barriers by October 5, 2019.

SAFE SHIPMENTS OF HAZARDOUS MATERIALS

ALPA has long advocated for improved transport requirements for hazardous materials both as a member of IFALPA and here in North America as well. We have worked with this Committee to ensure that the safe transport of lithium batteries can occur with adequate risk-mitigation techniques in place and are especially appreciative of Chairman DeFazio's long-standing commitment to improving the safety of lithium battery transport by air.

Although lithium batteries represent a significant technological improvement over older battery technology, their high energy density and flammability make these batteries more prone to failure, resulting in fire and explosion. The lack of com-

prehensive hazardous materials regulations for the carriage of lithium batteries as cargo onboard commercial aircraft, both passenger and cargo, continues to pose risks to air transportation.

New standards implemented by ICAO on April 1, 2016, made significant improvements to provisions under which lithium batteries are shipped as cargo by air around the globe. We are pleased that Section 333 of the FAA Reauthorization Act of 2018 directed the DOT to harmonize the U.S. regulations with those put in place by ICAO. This important and critical step ensures that until there are technologies that can fully contain a lithium battery-induced fire, the shipments are limited.

While the harmonization of the U.S. regulations to ICAO limitations is a good first step, it does not go far enough in addressing the safety risk created by lithium batteries. Work must continue to develop and mandate performance-based packaging standards that will prevent and/or contain a lithium battery fire. Unfortunately, this work has taken much longer than ICAO had planned, and it will continue into 2020. ALPA continues to advocate to ensure that the threat of external fires is addressed and that the battery/packaging testing ensures the safe transportation of these hazardous materials. We resolve to continue collaboration with the Committee to improve the shipment of lithium batteries by air.

UNDECLARED HAZARDOUS MATERIALS POSE A THREAT

We are pleased that undeclared hazardous materials were addressed by Section 583 of the FAA Reauthorization Act of 2018, which directs the Department of Transportation (DOT) to develop an undeclared hazardous materials public awareness campaign. The DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) has developed the "Check the Box" educational program to begin to address the risks posed by undeclared hazardous materials shipments, as well as the FAA's program on undeclared hazardous materials. This is an important effort that should help raise awareness among shippers.

Hazardous materials, comprised of liquids, flammables, and other materials, shipped as cargo without being identified by the shipper are considered undeclared hazardous materials. There are no official estimates of what percentage of parcel shipments contain undeclared hazardous materials; however, the FAA tracks incidents where hazardous materials shipments create safety hazards for various reasons, such as a leaking package or other type of external evidence that the package is a safety concern. In 2018, the FAA received 1,346 reports of such events; 644 of the incidents involved undeclared hazardous materials.

REDUCING HEALTH RISK WITH OXYGEN MASK RULE CHANGES

Section 579 of the FAA reauthorization Act of 2018 states that not later than one year after the date of enactment that "the Administrator of the Federal Aviation Administration shall issue a final regulation revising section 121.333(c)(3) of title 14, Code of Federal Regulations, to apply only to flight altitudes above flight level 410."

In partnership with the airlines, ALPA supported this section of legislation. We are increasingly concerned that the FAA will fail to meet the required deadline for implementation of this rule. Airline pilots will immediately benefit from the implementation of this legislation reducing the frequency of oxygen mask use by flight crews. Currently, pilots are required to don the mask when operating above flight level 250 at all times when they are the only pilot in the cockpit. The legislation changes the minimum altitude for this requirement to flight level 410. The legislation brings the U.S. regulations into harmonization with ICAO and will ensure that aviation safety is maintained while also relieving pilots from potential health risks associated with using the oxygen masks that are not likely cleaned between each use.

STRENGTHENING VOLUNTARY SAFETY REPORTING PROGRAMS

Voluntary safety reporting programs such as the Aviation Safety Action Program (ASAP) and Flight Operations Quality Assurance (FOQA) are important, collaborative tools that enhance aviation safety through the analysis of voluntarily reported safety events and discrepancies that lead to the prevention of accidents and incidents. The purpose of ASAP and FOQA is to encourage and use voluntarily reported safety information provided by frontline employees and airlines, respectively, to identify safety risks. Without these valuable safety reports, unidentified risks go unmitigated and remain within the system.

Automatic Acceptance

We were pleased to see that Section 320 of the FAA Reauthorization Act of 2018 included the provision that "there shall be a presumption that an individual's voluntary report of an operational or maintenance issue related to aviation safety under an aviation safety action program meets the criteria for acceptance as a valid report under such program." Directing the FAA to change ASAP to reflect this presumption will improve and increase the safety benefit of ASAP and voluntarily submitted aviation safety information by automatic acceptance of ASAP reports. This should be included in the new ASAP Advisory Circular, AC 120–66C.

Several airline ASAPs already have automatic acceptance protocols built in (e.g., American and Delta Air Lines). However, where ASAP reports are not automatically accepted, the safety benefit is delayed, sometimes by weeks or longer, waiting for an Event Review Committee (ERC) to meet, review, and accept these reports. Under an automatic-acceptance scenario, the safety benefit of the information will be realized immediately. As recognized in Section 320, a report could still be ultimately excluded when the ERC convenes, and it is determined to meet established exclusionary criteria. The automatic-acceptance model works and will now be universal to ASAP, thanks to the work of this Committee.

IMPROVING AIRCRAFT AIR QUALITY

Section 326 of the FAA Reauthorization called for expanded education programs, reporting guidelines, and research related to air quality on aircraft. ALPA supports these initiatives as critical first steps to improving air quality and health and safety aboard aircraft. We note that the FAA has missed the deadlines of 180 days for a study by the Airliner Cabin Environment Research Center of Excellence and for reporting guidelines. ICAO has reporting protocols (Advisory Circular 344) that could easily be assimilated to use for fume events and would help to standardize reporting. Similarly, the one-year mark for educational materials is close approaching, and we hope the FAA will prioritize action on air quality.

SAFE INTEGRATION OF UNMANNED AIRCRAFT SYSTEMS AND DRONES

Section 341 of the FAA Reauthorization Act of 2018 establishes law that requires the FAA to continue to utilize comprehensive planning for the integration of unmanned aircraft systems (UAS). The comprehensive plan includes the identification of policies and regulations that need to be established in order to safely integrate UAS into the airspace system. However, contrary to the direction provided by Congress, the FAA is in the process of issuing waivers to large volumes of regulations to companies, allowing them to bypass many important safety regulations in order to start a commercial UAS package-delivery service. Several of the applications, if approved, would authorize the flights without any limitations to flying over large airports, residential areas, or other populated areas.

While this "regulation by exemption" accelerates the FAA UAS implementation, it is counter to the FAA's stated policy of "crawl, walk, run" for the introduction of new technology, capability, and procedures. It also appears to be counter to Section 341 of the FAA Reauthorization Act which encourages the FAA to utilize traditional policy and rulemaking practices, not exemptions to waivers. The FAA has historically established regulations based on accidents and incidents to establish the current FARs. Aviation regulations represent a safety framework for which commercial for-hire operations are conducted. Issuing exemptions to so many of the requested areas appears to erode the safety levels established by the FAA through regulation, many of which were established as a result of accidents and incidents with injury and loss of life to passengers and people on the ground.

We must not allow pressure to rapidly integrate UAS into the national airspace system without appropriate safeguards in place. This process must be focused on safety as the highest priority. Risk-mitigation plans, which have yet to be fully developed, combined with consensus-based technology standards that will ensure interoperability with manned aircraft, must be in place before a UAS can occupy the same airspace as manned aircraft or operate in areas where it might inadvertently stray into airspace occupied by airliners. When UAS operate in the same airspace as airline aircraft, the pilots will need to be able to see them on cockpit displays, and air traffic controllers will also need to see them on their displays to safely separate air traffic. Further, the UAS must be equipped with active collision-avoidance technology. We will oppose any integration that does not include collision-avoidance systems that are interoperable with airline collision-avoidance systems.

Small UAS (sUAS) Identification and Tracking Technologies Are Needed

At the end of last month, the FAA announced that their rulemaking effort on sUAS identification and tracking has once again been delayed, this time until at least December.

Now that Congress has removed the FAA's barriers to regulating model and hobby small UAS in the FAA Reauthorization Act of 2018, the FAA urgently needs to implement mandatory identification and tracking capabilities.

If an identification and tracking system had been in place prior to the October 2016 collision with the Army helicopter, much more information would have been immediately available to accident investigators and law enforcement. Such a system would likely have prevented the collision in the first place, because law enforcement may have observed the sUAS operating on a previous flight, and proactively contacted the hobbyist about the illegal use of the aircraft. Until there is a way for law enforcement to identify and track down the sUAS operators, there is very little incentive for non-conformist hobby operators to operate sUAS safely.

COMMERCIAL SPACEPORTS

ALPA is pleased to see that Section 580 of the FAA Reauthorization Act addresses the topic of spaceports. The safe integration of commercial space operations is reliant on a safe location from which to launch and recover commercial space vehicles. The integration of commercial space operations likely requires the spaceports to be located in geographic areas that allow for the launch and recovery of commercial spacecraft without unacceptable levels of risk exposure to other nonparticipating aviation operations, including commercial airline operations. The strategic placement of commercial spaceports with safe integration of commercial space operations as a top priority should result in a solid foundation from which commercial space integration with other airspace system uses can be safely conducted. We urge Congress to monitor the FAA plan for commercial spaceports, to ensure that their placement does not add safety risk to commercial airline operations.

ADDRESSING ALL-CARGO AIRLINE SAFETY

It is an unfortunate fact that many of the safety and security layers working to protect our passenger airline industry are absent from all-cargo operations. Cargo airlines fly the same aircraft, take off and land from the same airports, utilize the same airspace, and fly over the same cities as passenger aircraft. From a safety and security standpoint, there is every reason to hold all-cargo operations to the same safety and security standards as passenger operations. All-cargo airline operations currently experience an accident rate that is seven times higher than passenger airline operations worldwide.

ALPA is pleased the FAA reauthorization included fatigue-mitigation provisions for flight attendants and FAR Part 135 operations. However, the continued exclusion of the all-cargo sector presents an ongoing threat to aviation safety for all of us. We look forward to the introduction of the Safe Skies Act in the House to eliminate the disparity between flight-time/duty-time rules for passenger and cargo, and we implore this Committee to work for its swift adoption and to hold the Administration accountable to ensure one level of safety.

ALPA has maintained a strong stance that all-cargo operations must have the same level of safety as passenger airlines. The facts, however, speak for themselves. There have been five fatal all-cargo 14 CFR Part 121 accidents in the United States in the past decade, with 15 fatalities. This includes the fatal accident on February 23, 2019, of an Atlas Air Boeing 767, not far from Houston, Texas.

TWO PILOTS ARE NEEDED IN TODAY'S AIRLINE COCKPIT

It is important to note that the FAA Reauthorization did *not* include a requirement for the FAA to establish a program related to the concept of single-pilot 14 CFR Part FAR 121 all-cargo airline operations. The program would have created a new multiyear funding obligation for the FAA to run a promotional program—despite, the agency's foundational safety mandate—in support of unsafe, single-piloted commercial operations. ALPA took the initiative to measure public perception of the concept of a single pilot at the controls of an airline aircraft. In a public poll in 2018, 80 percent of respondents agreed that at least two pilots working together in the cockpit are best equipped to handle flight emergencies, while 96 percent said federal aviation research dollars should be directed at projects other than those aimed at eliminating pilots from the cockpit.

Even when the proposal for an FAA program was removed from the legislation, we continue to assess the feasibility of single-pilot airline operations. In short, we

have documented many technical, regulatory, and financial barriers that indicate that single-pilot operations are a nonstarter either financially or due to safety and operational factors. More importantly, our continued record of safe landings clearly demonstrates that fewer than two pilots on commercial airliners is a threat to aviation safety and the concept should be shelved permanently. (See our white paper, "The Dangers of Single-Pilot Operations," at www.alpa.org/whitepapers.)

FAIR AND OPEN SKIES—ENSURING THAT AVIATION IN AMERICA REMAINS SAFE AND STRONG

While not specific to FAA implementation, we would be remiss not to highlight the work of this Committee to include the flag-of-convenience provision in the House-passed FAA reauthorization bill. ALPA would like to thank Chairman DeFazio and Chairman Larsen, as well as Representatives Davis, Davids, and Ferguson, for their ongoing leadership on an important issue that threatens thousands of high-quality airline jobs in our country. On July 10, they introduced H.R. 3632, the Fair and Open Skies Act. The legislation provides a bipartisan solution to ensure the enforcement of our Open Skies agreements by bolstering the DOT's oversight of an air carrier when it seeks an operating certificate to conduct service to the United States. Specifically, the Fair and Open Skies Act clarifies in statute that a multi-factor public-interest test must be given consideration before the issuance of a foreign air carrier permit, revises the public-interest test to examine whether a foreign air carrier is a flag of convenience or is otherwise undermining U.S. labor standards, and requires European air carriers abide by the labor chapter of the U.S.-EU Open Skies Agreement as ratified by our government—ALPA has traditionally supported the opportunities created by our more than 120 Open Skies agreements. When properly enforced, these agreements promote benefits for U.S. carriers, workers, and passengers. Collectively, the reforms provided in the Fair and Open Skies Act will help ensure these agreements operate as intended and that the liberalization of air services is beneficial to all parties, including nation states, U.S. employees, and air carriers. This legislation will ensure that DOT gives proper consideration of a foreign airline's business practices, including those who may employ businesses practices with questionable safety oversight or regulatory schemes to be fully vetted before granting a permit to fly to the United States.

CONCLUSION

We appreciate the Committee's invitation to offer our insights and perspectives on these important aviation safety issues today. More importantly, we appreciate the leadership that continues to be demonstrated by the Committee to advance these high-priority safety issues. The airline industry is best positioned to fully meet the needs of all passengers and shippers when safety levels remain at, or exceed, their current levels. It is in our collective best interest as legislative leaders, labor organizations, companies, and regulators, to ensure the foundation of safety is solid, and continues to lead the rest of the world. We look forward to working on these issues with you in the coming months as we strive to make meaningful safety improvements to aviation.

Mr. LARSEN. Thank you, Captain Fox.

And I recognize the other Greg Walden from the Small UAV Coalition.

Mr. WALDEN. Thank you, Chairman Larsen, Chairman DeFazio, Ranking Member Graves and Graves, and members of the subcommittee. Thank you for the opportunity to testify on the unmanned aircraft system subtitle. I am here on behalf of the Small UAV Coalition, whose members have been involved in every working group and industry partnership the FAA has established with the U.S. community.

Coalition members represent the innovative, cutting-edge technological leadership that is poised to enable ubiquitous commercial UAS operations. We commend Congress for enacting a forward-looking policy roadmap for U.S. integration.

Subtitle B addresses all of the issues that are critical to the development of a safe and secure regulatory framework.

We also thank you for including two provisions that were necessary to lift the 2-year hold on UAS rulemakings, and we especially appreciate Chairman DeFazio's leadership in freeing the FAA to move forward with remote ID that we expect will apply to all UAS operators.

We are encouraged that the remote ID rule, so far delayed, is now under review at OMB. Coalition members have demonstrated remote ID technology based on the ASTM standard, which can be implemented today without requiring costly infrastructure or equipage.

With respect to unmanned traffic management, or UTM, coalition members had been working in partnership with NASA for several years when we first urged Congress to address UTM in FAA reauthorization. In 2016 you created the 2-year pilot program. And, with further direction into the 2018 law, the program is now underway. Unfortunately, UTM deployment has progressed slowly. While industry is ready to implement UTM capabilities, it must depend on a supportive policy framework to do so.

As for aircraft certification, we support section 44807, which is used to authorize commercial packages, delivery operations, and operations of drones over 55 pounds.

The law directs the FAA to set up a process to accept risk-based industry consensus standards. We find much promise in this provision, but it will take some time to work through its complexity.

Right now we support the Specific Operations Risk Assessment, or SORA, which is a process initially created by the Joint Authorities for Rulemaking of Unmanned Systems. It goes by the moniker JARUS.

We also support the FAA's MOSAIC Airworthiness Rulemaking Project, and the FAA work on developing a type certification process for lower risk UAS operations that relies primarily on a demonstration of reliability and durability.

We strongly endorsed the UAS integration pilot program when it was announced. Many coalition members are participating in one or more programs, and have had positive experience. On the other hand, we have other reports that suggest success has been uneven.

We believe that plenary authority must remain with the FAA in four specific areas: aircraft, airmen, air carriers, and airspace. The FAA must retain its authority over UAS operations at any altitude. At the same time, State and local governments possess land use and other police powers, and these authorities can coexist, particularly with technical solutions like UTM.

We support the requirement that recreational operators pass an online aeronautical knowledge test. We expect many recreational operators who would otherwise elect not to travel to a testing center will go online. Unfortunately, the FAA did not meet the April deadline to develop a test, and the process to select online testing vendors got off to a slow start. We certainly hope the FAA can begin online testing by the end of this year.

The coalition supported extending counter-UAS authorities to DHS and DOJ. We believe the guidance required by section 1602 should be in place before counter-UAS authority is exercised. For the same reason, we believe it is premature to extend these authorities to airports or State and local governments.

The commercial UAS industry is international in reach, and it is thus very important that the United States assume its global leadership role. We urge the FAA to continue to engage with ICAO and with JARUS, which has developed an effective framework for evaluating complex UAS operations, and recently adopted a workplan to address UTM-air traffic control interface, autonomous operations, and the UAS flight rules.

The FAA Reauthorization Act of 2018 was a major milestone, and we ask this committee to continue its vigorous oversight to ensure the important directives in the 2018 law are addressed in a timely manner.

Thank you again for the opportunity to testify today. I look forward to your questions.

[Mr. Walden's prepared statement follows:]

Prepared Statement of Gregory S. Walden, Aviation Counsel, Small UAV Coalition

Chairman Larsen, Ranking Member Graves, and members of the Subcommittee: on behalf of the Small UAV Coalition, to which I serve as Aviation Counsel, thank you for the opportunity to present testimony on the unmanned aircraft systems (UAS) subtitle in the FAA Reauthorization Act of 2018. I am also Senior Advisor with McGuireWoods Consulting LLC and Partner with McGuireWoods LLP. I served as FAA Chief Counsel from May 1988 through December 1990 and have been both practicing aviation law and teaching at George Mason University Law School for the last 20 years.

The Small UAV Coalition was organized in 2014 and is comprised of UAS operators, hardware and software manufacturers, and other companies involved in the commercial UAS sector. Coalition members have been involved in each and every committee, working group, and industry partnership the FAA has established with the UAS community. Together, Coalition member companies represent the innovative, cutting-edge technological leadership that in just a few short years, is poised to enable routine safe, secure, UAS integration. With your continued support, we are well on our way to securing a regulatory framework for commercial UAS operations that will not only capture, but exceed, our expectations and deliver untold economic and consumer benefits.

GENERAL OBSERVATIONS

The Coalition welcomes the UAS provisions enacted into law last year and commends Congress for establishing a forward-looking policy roadmap for UAS integration. Subtitle B of the Safety title addressed all of the issues we believe are critical to the development of a safe and secure UAS regulatory framework: remote identification, unmanned traffic management, air carrier certification, standards development, security, privacy, spectrum, and state and local authorities. Significantly, the 2018 reauthorization law included two key provisions—both of which the Coalition supported—necessary to lift the informal hold on FAA UAS rulemakings, which dated back to December 2016.

REMOTE IDENTIFICATION (REMOTE ID)

We are encouraged that the remote ID proposed rule, mandated by the FAA Extension, Safety, and Security Act of 2016, is now under review at the Office of Information and Regulatory Affairs (OIRA). Remote ID is fundamental to the development of a mature UAS regulatory framework; it addresses safety, security, and privacy concerns. As Congress envisioned in the 2018 reauthorization law by establishing a pilot program to utilize available remote ID technologies for safety oversight (section 372), remote ID will assist the FAA in conducting safety oversight and taking enforcement actions when necessary. While this section sunsets in September 2023, remote ID should continue to serve as a compliance tool for the FAA.

We are also pleased that ASTM Committee F38 has developed a remote ID standard, which is now out for ballot, and which will help to inform the remote ID rulemaking. We appreciate the role this Committee—in particular Chairman DeFazio—

played in freeing the FAA to move forward with a rule that we expect will apply both to commercial and non-commercial UAS operators. Section 349 allows recreational operators and hobbyists to work with FAA Air Traffic officials to designate discrete flying fields ("fixed sites") where UAS perhaps need not be equipped. In other airspace, however, remote ID may be required of all UAS operators.

We are mindful that the OIRA process may result in further delays, beyond the 90 day review period set out in Executive Order 12866. Coalition members have demonstrated remote ID technology based on the ASTM standard. They have shown that the standard can be implemented today across a range of commercial and recreational operators without requiring costly additional infrastructure or equipage. The ASTM standard balances transparency with the privacy interests of customers and operators by sharing information only as necessary. Remote ID based on the ASTM standard can deliver immediate safety, security, and privacy benefits at reasonable cost. Indeed, earlier this month several Coalition members participated in a demonstration of network-based remote ID.

The FAA also tasked the Drone Advisory Committee (DAC) with recommending incentives to encourage early equipage, and the Coalition recently submitted its recommendations to the DAC. The Coalition urged that any pre-rule implementation be consistent with the ASTM standard. To demonstrate the potential of remote ID to address a number of concerns with UAS operations, the Coalition recommended the DAC urge the FAA to sponsor live remote ID demonstrations to Congress, Federal law enforcement and homeland security agencies, State and local law enforcement officials, and the general public. Remote ID demonstrations are critical to public acceptance of commercial drone operations in a range of use cases, including operations over people (OOP) and beyond visual line of sight (BVLOS) in both rural and urban environments. To incentivize companies to implement remote ID in compliance with the ASTM standard, the Coalition believes the FAA should prioritize Part 107 waiver and section 44807 exemption petitions filed by UAS operators using ASTM standard-compliant remote ID, and that remote ID equipage should be considered favorably in evaluating the merits of a waiver or exemption request because it increases the margin of safety of the drone operations.

In sum, the Coalition supports pre-rule equipage and encourages the FAA to move forward with incentives to equip.

UNMANNED TRAFFIC MANAGEMENT (UTM)

When the Coalition was established in 2014, NASA was well along with its R&D work on developing a proposed UTM ecosystem. Coalition members partnered with NASA in this work and the Coalition urged Congress to address UTM design, development, and implementation in FAA reauthorization legislation. The 2016 extension law established a two-year UTM System Pilot Program (UPP). With further direction from Congress contained in sections 376 and 377 of the 2018 reauthorization law, both of which we strongly supported, that Program is now underway.

Unfortunately, UTM development has progressed slowly, and with little transparency. Industry is ready to implement UTM capabilities, but must depend on a supportive policy framework to do so. Earlier this year, the FAA selected three of the UAS test sites to serve as the UPP participants. The FAA recently showcased UTM demonstrations at these three sites, but there is no indication that any UPP participant is seeking to take advantage of two provisions in section 376: blanket BVLOS waiver authority for any UAS operating simultaneously in a swath of airspace and demonstration of multiple remote ID technologies. We remain hopeful that FAA will meet the April 2020 deadline for the UTM implementation plan, which should not only build upon the FAA's UTM Concept of Operations document, NASA's work, and the results from UPP, but also include the UAS industry's work, including as part of ASTM Committee F38.

Section 377 encourages the FAA to determine, by February 2019, whether UTM services can be provided before the UTM implementation plan is completed. We are unaware whether the FAA has established a framework to evaluate and approve a request from a would-be UTM Service Provider.

AIR CARRIER RULE

The Coalition has long supported the development of a rule to authorize UAS air carriers that would be tailored to the very different and lower risk profile small UAS pose compared with traditional manned air carriers. Section 348 requires the FAA to update its rules within one year of enactment. While that clearly will not occur, we acknowledge that the FAA is moving ahead to authorize package delivery for compensation or hire by granting exemptions from Part 135. Wing has obtained

this authority, with petitions from Amazon Prime Air, Uber Elevate, and UPS Flight Forward pending.

With respect to economic authority, DOT moved quickly to apply the existing Part 298 exemption process for air taxi operators to UAS operators.

STATE AND LOCAL AUTHORITY

One of the greatest challenges to the development of a mature UAS regulatory framework is to achieve a proper understanding of the roles and responsibilities of Federal, State, and local governments. Section 373, which the Coalition supported, tasks GAO with conducting a study and reporting to Congress by April 2019. The Coalition believed then, and believes now, that it is premature for Congress to make any changes to the FAA's exclusive authority over aviation safety.

The Coalition believes that plenary authority must remain with the Federal Government in four specific areas: aircraft, airmen, air carriers, and airspace. With respect to drones, this means that UAS equipage and maintenance requirements, remote pilot qualifications, regulation of package delivery, and airspace classification and regulation are for the FAA to regulate and enforce. With respect to airspace, the Coalition believes that the FAA must retain its safety authority over UAS operators and operations at any altitude, no matter how close to the ground. At the same time, State and local governments possess land use and other police powers. These authorities can co-exist, particularly with the support of technical solutions like UTM. We look forward to reviewing the findings and recommendations in the GAO report.

The Coalition strongly endorsed the UAS Integration Pilot Program (IPP) when it was announced in 2018 and many Coalition members are participating in one or more programs. The IPP was created in large part to allow for State and local governments to inform the FAA about local interests in UAS operations. Indeed, DOT required lead applicants to be State, local, or tribal government entities. While many Coalition members have had very positive experiences under the auspices of the IPP that have demonstrated the promise of commercial UAS technology, generally speaking the IPP has lacked transparency; the initial report on this three-year program has not yet been published. Reports indicate that success has been uneven. From the start, the scope of projects in most IPP programs was significantly curtailed and waivers have taken longer than expected.

AIRCRAFT SAFETY STANDARDS AND CERTIFICATION

As for aircraft certification, there remains much to do. The Coalition supports section 44807, which superseded section 333 exemption authority, so that the FAA is permitted to authorize UAS operations over 55 pounds, as well as waive type, production, and airworthiness certification requirements. Indeed, commercial package delivery under Part 135 requires an exemption under section 44807, because otherwise an air carrier may operate only those aircraft with a valid airworthiness certificate.

Section 202 created the Safety Oversight and Certification Advisory Committee (SOCAC) and provides for UAS industry representation. The law required the Secretary to establish the SOCAC by December 2018; this deadline was not met and the first meeting will not be held until this November. The Coalition supports the creation of this advisory committee and recognizes that the focus and attention this year has appropriately been on the response to the tragic Boeing 737 MAX accidents.

Section 345 directs the FAA to set up a process to accept risk-based industry-consensus standards and to allow UAS manufacturers to declare compliance with such standards. There is much promise in this provision, but it will take some time to work through its complexity, and therefore this is one provision for which the absence of a deadline makes sense. The Coalition believes the FAA shares with the UAS industry the desire to adapt the current type and airworthiness certification processes to unmanned aircraft, both small and large. It will be up to the UAS industry, working with various U.S. and international standards-setting groups, to develop standards for such technologies as detect-and-avoid. The Coalition supports the adoption as an industry consensus standard the Specific Operations Risk Assessment (SORA) process initially created by the Joint Authorities for Rulemaking on Unmanned Systems (JARUS). We also support the work the FAA is doing on the so-called MOSAIC (Modernization of Special Airworthiness Certificates) process: the FAA has current regulatory authority under 14 C.F.R. 21.17(b) to adopt Special Conditions for aircraft designs for which neither Part 23 nor Part 25 is appropriate.

Section 345 recognizes that the initial and primary responsibility for designing and manufacturing safe and reliable drones rests with the UAS industry. The FAA

must have the final say that a UAS has been designed and manufactured in compliance with FAA-approved standards. In reviewing the FAA's Organization Designation Authorization process, Congress should be mindful that, with respect to small UAS, the industry will lead in ensuring the safety and reliability of hardware and software innovations that increasing lead to autonomous operations.

The Coalition also supports the FAA's work on developing an alternative certification process for lower risk UAS operations that relies primarily on a demonstration of reliability and durability, and that scales from remote, densely-populated area to high-density cities.

RISK

One of the central themes one can derive from the 2018 reauthorization law is the imperative to base decision making on the nature and degree of risk to aircraft (so-called air risk) and to persons and property on the ground (so-called ground risk), and to evaluate how this risk can be mitigated. The Coalition strongly supports risk as the touchstone for UAS regulation. Based on the FAA's proposed rule for operations over people, however, the Coalition is concerned that the FAA may be approaching risk in an overly conservative way.

The Coalition recommends a holistic approach to evaluating risk that takes into account avoided risk (such as the risks associated with alternatives such as manned aircraft, or road vehicles) and risk mitigation (measures that reduce the likelihood of failure and the likelihood of a collision, not just the consequences of a collision). At its most basic level, the risk model the FAA identifies in its proposed rule fails to consider the net reduction in risk in operating a small UAS rather alternatives, such as a manned aircraft of any size, operating a motor vehicle or, in some cases, undertaking the task personally (i.e. climbing a cell tower). UAS operations reduce risk by limiting the public's exposure to the greater dangers associated with operations of significantly larger, heavier, and faster fixed-wing aircraft that are fuel-powered, or the even greater danger posed by automobiles. UAS operations under 55 pounds are lightweight, nearly all battery-powered, have no on-board crew, and create no toxic emissions.

Assessing the Risks of Unmanned Aircraft Systems into the National Airspace System, a recent Consensus Study Report commissioned by the National Academies of Sciences, Engineering and Medicine at the FAA's request in 2017, recommends this approach.

In the OOP NPRM, the FAA uses a kinetic energy standard that assumes a small UAS has collided with a human being. In other words, the standard is not based on the probability of failure or the probability of impact, but only on the severity of impact. The FAA does not use this standard for manned aviation, whether transport category or small aircraft. If it did, no aircraft would ever be allowed to fly over people, and the aviation industry would not exist.

As the Alliance for System Safety of UAS through Research Excellence (ASSURE) explained, "FAA's safety program relies heavily upon the risk-based approach that includes hazard severity and probability of occurrence. . . . The NPRM proposes to achieve their safety objectives by establishing a performance-based standard on severity of the impact without any clear guidelines or application of probability of the collision even occurring." The Coalition urges the FAA to reconsider its risk assessment models, and revise its performance standards in line with ASSURE's recommendations.

RECREATIONAL OPERATORS

The Coalition supports the requirement in section 349 that recreational operators pass an aeronautical knowledge test that is administered online. We expect online training and testing will encourage many recreational operators, who would otherwise elect not to travel to a testing center to take the test, to go online and come into compliance. The FAA set up an Aviation Exam Board to develop questions for the aeronautical knowledge test; a member of the Coalition serves on this Board. Unfortunately, the FAA did not meet the April 3, 2019 deadline to develop a test and a request for information (RFI) to potential online aeronautical knowledge test vendors was not issued until August. Submissions were due September 19, so we are hopeful that the FAA can begin the online aeronautical testing by the end of this year or early in 2020. The Coalition encourages the FAA to ensure that the test is affordable and accessible to the recreational UAS community in order to maximize compliance.

PART 107 WAIVERS

A virtue of Part 107 is that several operational prohibitions in the rule are subject to waiver. In its early stages, the Part 107 waiver process lacked transparency and was far from user-friendly. We applaud section 352's direction to the FAA to increase transparency and make technological improvements. FAA has significantly improved its guidance on seeking waivers, although the UAS community would benefit greatly from the availability of FAA staff after an application is filed. The application process has also improved, but waivers still take too long to be processed. The DAC has created a Task Group to develop recommendations on how to improve the Part 107 waiver process, and the Coalition urges the FAA to implement these recommendations. We do applaud the development of the Low Altitude Authorization and Notification Capability (LAANC) and facility maps that support approvals to operate in controlled airspace in a matter of minutes.

SPECTRUM

Spectrum is another policy area that is important to UAS integration, as commercial licensed spectrum offers the security, reliability, and ubiquity, as well as the speed, latency, and bandwidth necessary to support sensitive UAS operations, including remote ID, UTM, and payload as control and non-payload communications (CNPC). Section 374 requires the NTIA, FAA, and FCC to report to Congress by July 2, 2019 on whether UAS operations should be permitted, but not required, to operate on the 960–1164 MHz and 5030–5091 MHz bands, on an unlicensed, shared, or exclusive basis, whether as part of or outside of a UTM system, and to make additional recommendations if these bands are unsuitable for BVLOS operations. The Coalition looks forward to reviewing this report when it is released.

PROTECTING GOVERNMENT FACILITIES, OPERATIONS, AND CRITICAL INFRASTRUCTURE

The Coalition supported extending counter-UAS authorities to DHS and DOJ in a manner consistent with authorities previously granted to DOD and DOE in recent National Defense Authorization Acts (NDAAs). We note that section 1602 permits the Departments to issue regulations, but requires them to issue guidance. We understand that DHS and DOJ each is working on guidance. Although there is no deadline in section 1602 to develop such guidance, we believe that it should be in place before counter-UAS authority beyond detection is exercised.

Section 364 requires the FAA by December 2018 to have initiated a review of counter-UAS activities by Federal agencies by April 2019 to have reported to Congress. To our knowledge, this report has not been provided. Section 1602 requires DHS to provide a report to Congress by October 5, 2019 on an evaluation of threats and current authorities. We are unaware of any reported use of counter-UAS authority by DOD, DOE, DHS, or DOJ.

Because Executive Branch policies are not yet in place, and there appears to be little, if any, experience by these four Departments in using counter-UAS authorities, the Coalition believes it is premature to consider extending these authorities to other Federal agencies, airports, or State and local governments. Section 383 directs the FAA to develop a plan and to charter an aviation rulemaking committee (ARC) to consider allowing the deployment of UAS detection and mitigation at five airports. We suggest that any ARC that is established should consider Federal Department guidance required in section 1602 and the experience these Departments gain in using counter-UAS authorities in the future.

With respect to protection of critical infrastructure, Section 369 requires the FAA to propose a rule to implement Section 2209 of the 2016 extension law by March 31, 2019, with a final rule by March 31, 2020. The FAA's current timetable expects a proposed rule by December 2019. We recognize that FAA has used its Temporary Flight Restriction (TFR) authority in the interim, and recommend the FAA continue to do so until a rule is in place.

U.S. LEADERSHIP

Aviation is international in its reach. While each country regulates aircraft and airlines within its borders, the International Civil Aviation Organization (ICAO) exists in part to promote uniformity and harmonization of regulations and standards throughout the world. Since the dawn of aviation, the United States had led the world in safety improvements, which ICAO has later used in standards to be adopted by United Nations Member States.

The commercial UAS industry is likewise international in its reach. Many Coalition members are international companies that will manufacture, operate, and sell

UAS in many countries. It is thus equally important that the United States remain the leader in aviation regulation. The Coalition urges the FAA to continue to engage with ICAO's RPAS Panel and with JARUS, which has developed an effective regulatory framework for evaluating complex UAS operations and recently adopted a work plan to address UTM–ATM interface, autonomous operations, and UAS flight rules.

CONCLUSION

The FAA Reauthorization Act of 2018 was a major milestone in helping to shape and advance a mature UAS regulatory framework that will support continued innovation. There is much more to do before largely autonomous BVLOS UAS operations will be routine, and there remain some difficult issues to resolve. The Coalition therefore again commends the Committee for charting a forward-looking course for safe, secure UAS integration and urges this Subcommittee to continue its vigorous oversight to ensure its many directives are addressed in a timely manner.

Thank you again for the opportunity to testify today, and I look forward to your questions.

Mr. LARSEN. Thank you for your testimony.

I now turn to Mark Baker, president of AOPA.

Mr. BAKER. Thank you. Chairman Larsen, Ranking Members Graves, members of the subcommittee, thank you for the opportunity to discuss important provisions of last year's FAA Reauthorization Act that impact aircraft owners and pilots and the general aviation community.

AOPA represents over 300,000 pilots and aircraft owners across the United States. We are fortunate to have very engaged members in every State and congressional district across the country.

I am fortunate to have had the privilege to fly in our Nation's aviation system for over 40 years. It is an amazing system. It is very safe, modern, and the envy of the world. And this committee has a lot to do with that. I would like to commend the committee for its work in passing the bipartisan——

Mr. LARSEN. Mr. Baker, if you could just pull the microphone a little closer, or speak more directly into it——

Mr. BAKER. A little closer? How about that?

Mr. LARSEN. Thank you.

Mr. BAKER. We would like to thank and commend the committee for its work in passing a bipartisan 5-year FAA reauthorization. Public Law 115–254 is widely recognized for both what it includes and what it does not include.

Today I will briefly mention the key provisions that directly and positively impact general aviation. I would like to give a special thanks to Ranking Member Sam Graves for his leadership on several of these provisions in the act.

Thousands of public-use airports across this Nation rely solely on general aviation to connect over 170 million people each year. General aviation contributes over $200 billion annually to our Nation's economy, and produces 1.1 million jobs.

With the support of this committee, Congress has appropriated an additional $1 billion in discretionary funds in the fiscal year 2018 that will meet the demand of airport infrastructure needs, and another $500 million in fiscal 2019. Speaking for myself and on behalf of those who fly in and out of small airports, we appreciate that support.

For many private aircraft owners, aeronautical activity occurring in airport hangars include building and maintaining aircraft.

AOPA has long advocated for changes to the definition of aeronautical activity in hangars. Section 131 codifies the FAA's updated hangar use policy so that the realities with general aviation flying, building, and maintenance can be realized.

Several other provisions in the bill are important to the general aviation community, including section 556, which, as you know, requires the FAA to initiate rulemaking to increase the duration of general aviation aircraft registration from 3 years to 7 years. This is a commonsense provision that will help reduce workload and the cost of aircraft ownership, which AOPA strongly supports.

Section 518 will keep the aircraft registry open, should a Government shutdown occur in the future, which will have a positive impact on general aviation registration requirements.

We also support Chairman DeFazio's Aviation Funding Stability Act, which would ensure that all FAA activities are funded in the event of a Government shutdown.

Section 532 clarifies FAA policy regarding payment of living history flights, which will help continue our efforts to attract a new generation of aviation enthusiasts, a future workforce for the aviation community.

Speaking of our future workforce, Congress and this committee specifically recognized the need to support aviation workforce development programs through section 625. This was a top priority for AOPA. The Pilot Education Grant Program and the Aviation Technical Workforce Grant Program were each authorized at $5 million per year for the next 5 years. We remain hopeful that the appropriations process will move forward, and that will be fully funded.

AOPA has taken a leadership role in developing our future aviation workforce through AOPA's high school initiative, by providing high-quality, STEM-based aviation education to high school students nationwide. AOPA is opening the door to an aviation career for thousands of teens. For the 2018–19 school year our curriculum is being used on an estimated 2,200 children, ninth grade students, over 80 schools in 27 States. Another 461 students at 25 schools in 15 States are using the 10th grade curriculum. During the current year, 161 schools in 34 States are delivering aviation curriculum to these students. Our 11th grade curriculum is currently being field tested, and our ultimate goal is to have a 4-year program that will enable students to take and pass a written test to become a private pilot.

While not related to the FAA Reauthorization Act of 2018, I would like to thank the committee and mention the success of the bipartisan legislation passed into law, an extension of the Security Act, also known as a third-class medical, which is referred to now as the BasicMed. In just over 2 years that the program has been launched, more than 50,000 pilots are flying safely under these new medical standards. I am pleased to report the FAA implemented the statute expeditiously, and continues to support the success of the law.

Finally, Mr. Chairman, we must continue to work together in industry and Government to ensure our Nation's leadership in all sections of aviation. We are hopeful that the committee will work

through Senator Jim Inhofe of Oklahoma and others to establish the National Center for the Advancement of Aviation.

Thank you very much.

[Mr. Baker's prepared statement follows:]

Prepared Statement of Mark Baker, President and Chief Executive Officer, Aircraft Owners and Pilots Association

Chairman Larsen, Ranking Member Graves, Members of the Subcommittee, on behalf of over 300,000 AOPA members, thank you for the opportunity to provide testimony on the recent bipartisan five-year FAA Reauthorization Act of 2018.

The Aircraft Owners and Pilots Association (AOPA) is currently celebrating its 80th Anniversary and I am proud and humbled to be only the 5th President serving the Association since its inception in 1939. We have stayed true to our mission over these several decades by protecting and defending our freedom to fly, ensuring that safety remains our north star, and helping guide this uniquely American experience so we can pass it along, better than we received it, to the next generation of aviators.

First, I would like to commend the Committee for its work in passing a five-year FAA reauthorization. PL115–254 is widely recognized for both what it includes and what it does not include and helps provide the tools necessary for the FAA to plan, prepare, and ensure that our aviation system remains the safest and most efficient in the world.

We look forward to working with the Committee and all aviation stakeholders to bring efficiencies to the FAA, under its current construct, and develop a bright future for this amazing thing we call flight.

Today, I will briefly discuss a number of key provisions included in the statute that directly and positively impact general aviation and would like to give a special thanks to Ranking Member Sam Graves for his leadership and perseverance on several of the provisions in the Act.

SECTION 158—SUPPLEMENTAL DISCRETIONARY FUNDS.

According to the U.S. Department of Transportation's Bureau of Transportation Statistics, there are over 19,000 public-use and private airports in the United States. These include general, commercial, military, heliports, seaplane bases, short takeoff and landing ports, ultralight, glider, and balloon ports.

The Federal Aviation Administration's 2019–2023 National Plan of Integrated Airport Systems (NPIAS) report indicates that there are 5,099 public-use airports in the United States of which the commercial airlines provide passenger service to 509 of these facilities and the remainder are used primarily by general aviation. As a point of reference, there are about 7,000 aircraft in the U.S. commercial fleet and over 200,000 aircraft in the general aviation fleet.

Thousands of public-use airports across the nation rely solely on general aviation to connect over 170 million people each year. General aviation contributes over $219 billion annually to our nation's economy and produces 1.1 million jobs.

These airports are often vital to the economies of small communities and are used in a variety of ways including business, recreation, natural disaster relief operations, medical emergencies, law enforcement, agricultural support, and others.

With the support of this Committee, Congress appropriated an additional $1 billion dollars in discretionary funds through the Consolidated Appropriations Act of 2018, and an additional supplemental amount of $500 million dollars in fiscal year 2019.

Speaking for myself and on behalf of those who fly in and out of small airports in rural communities across this country, we appreciate your support. These resources have provided a shot in the arm to our national airport system.

We know the Committee has long recognized the importance of our nation's airports and again expressed its commitment by including in PL115–254 an authorization of supplemental discretionary grant funds in the amount of $1 billion dollars per year through fiscal year 2023. Funding for this authorization will help airports address safety improvement projects, including the nearly 3,000 non-primary entitlement (NPE) airports typically used by general aviation aircraft across the country.

The committee did address the issue of NPE expired funds in Section 155 of the FAA reauthorization bill and we look forward to continuing to work together on fur-

ther reforms to the program to ensure that the NPE program works for airport sponsors and the funds are directed to airports for which they were intended.

SECTION 131—GRANT ASSURANCES.

AOPA has long advocated for changes to the definition of aeronautical activity in hangars and I thank Ranking Member Sam Graves, an avid aviator, for his leadership on this as well.

For many private aircraft owners, aeronautical activities occurring in airport hangars include building and maintaining an aircraft.

However, surprisingly, not until 2016 did the FAA decide to define aircraft building as an aeronautical activity and before then only permitted final assembly of aircraft in hangars located on federally obligated airports.

In 2016, the FAA published a policy update to the Federal Register that was meant to clarify how aviation facilities including hangars can be used on airports that receive federal funds. Most notably, the FAA's update allowed noncommercial experimental amateur builders of aircraft to do more work at airport hangars.

The FAA also clarified that aircraft needing repair and maintenance are still considered "operational aircraft" and may be kept in hangars at the discretion of airport sponsors. In addition, the storage of nonaeronautical items are permissible provided they do not interfere with the intended aeronautical use of the hangar and are allowed by the airport sponsor.

While we applaud FAA's decision to update their hangar policy, Section 131 of the FAA Reauthorization Act codifies the FAA's updated hangar use policies so that the realities of general aviation flying, building and maintenance can be realized.

SECTION 556—AIRCRAFT REGISTRATION.

As you know, Section 556 of the FAA Reauthorization Act of 2018 requires the FAA Administrator to initiate a rulemaking to increase the duration of aircraft registration for noncommercial general aviation aircraft from three years to seven years.

AOPA strongly supports this common-sense provision. I don't believe FAA has initiated a rulemaking at this point but we look forward to its implementation as soon as possible.

SECTION 518—AIRCRAFT REGISTRY OFFICE.

Section 518, authored by Representative Sam Graves, deems the FAA Aircraft Registry in Oklahoma City, Oklahoma "essential" and therefore remains operational should a government shutdown occur. The FAA Registry office is responsible for most aircraft registrations, renewals, and other critical functions and handles thousands of transactions daily. This provision will have a significant and positive impact on general aviation registration requirements should a government shutdown occur in the future.

We also support Chairman DeFazio's "Aviation Funding Stability Act", H.R. 1108, which would ensure that all activities of the FAA are funded in the event of a government shutdown.

SECTION 512—AIR SHOWS.

Temporary Flight Restrictions (TFRs) imposed by the FAA for large outdoor events has caused issues when the agency has also approved air shows being held during the same times in the same areas. Section 512 of the Act encourages the FAA to work with general aviation, communities, and large outdoor event organizers to identify and resolve these scheduling conflicts. The FAA is following through on this and meeting with stakeholders, including AOPA, to discuss ways to facilitate a positive resolution to this issue.

SECTION 532—CLARIFICATION OF REQUIREMENTS FOR LIVING HISTORY FLIGHTS.

We appreciate the Committee's support for living history flights as a way to attract a new generation of aviation enthusiasts and provide them with a flying experience and learning about aviation's past. This provision provided the needed clarification on the requirements for living history flights and is very much appreciated by those who participate in these activities.

We are pleased the FAA is working with stakeholders and it is my understanding the FAA is on target for a federal register publication later this year.

SECTION 576—TOWER MARKING.

Improving visibility of certain towers for low-flying aircraft will certainly improve the safety of pilots and aircraft. As you know, this provision directs the FAA to issue regulations that require certain towers to either be marked or included in an FAA database. We look forward to working with the FAA to enact these regulations as soon as possible and as outlined in the statute.

SECTION 625—AVIATION WORKFORCE DEVELOPMENT PROGRAMS.

This is an important provision intended to introduce high school students and others to STEM aviation education and opportunities, as well as training in aviation and aerospace skills. This issue is a top priority for AOPA.

Congress, and this Committee specifically, recognized the need to support aviation workforce development programs by establishing this grant program.

In July 2018, Boeing released its Pilot and Technician Outlook wherein they estimated a need for more than 800,000 new pilots worldwide of which more than 200,000 are needed in the United States over the next 20 years. The report also mentioned that 750,000 new aviation technicians will be needed around the world. This will be a formidable challenge and one we must confront together—industry and government.

Most people that aspire to become aviators start in general aviation, so it is vital that we collaborate on efforts to ensure that this pipeline remains open to all. The pilot education grant program will support the creation and delivery of curriculum designed to provide high school students with meaningful science, technology, engineering, math and aviation education and encouraging our nation's youth to become the next generation of commercial, general aviation, drone or military pilots.

The aviation technical workforce grant program includes scholarships, apprenticeships, establishment of new training programs, purchasing equipment for schools, and supporting career transition for members of the armed forces.

These two programs are each authorized at $5 million per year over the next five years, it is imperative that Congress provide full funding in fiscal year 2020 and beyond to help ensure that we can meet the pilot and aviation technical workforce demands here in the United States.

We appreciate the leadership of Chairman Peter DeFazio, Ranking Member Sam Graves, Aviation Subcommittee Chairman Rick Larsen, Subcommittee Ranking Member Garret Graves, Congressman Dan Lipinski and the entire Committee who expressed their support for full funding of these grant programs to the Appropriations Committee.

AOPA has also taken a leadership role in developing our future aviation workforce by getting young people interested in aviation through programs such as the AOPA High School Initiative.

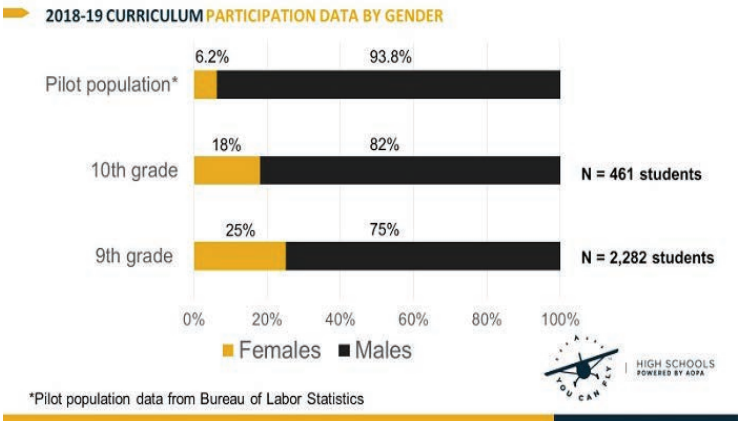
By providing high-quality STEM-based aviation education to high school students nationwide, AOPA is opening the door to aviation careers for thousands of teens.

The courses are designed to capture the imagination and give students from diverse backgrounds the tools to pursue advanced education and careers in aviation fields. Working with professional instructional designers, AOPA is currently offering three years of a four-year high school aviation STEM program that falls along two tracks—pilot and unmanned aircraft systems. The fourth year of the program is currently in development.

The program conforms to Common Core math and science standards and Next Generation Science Standards and, in keeping with career and technical education best practices, will lead to a certification or industry-accepted test, such as the FAA Private Pilot knowledge test or a Part 107 small UAS (drone) pilot certification.

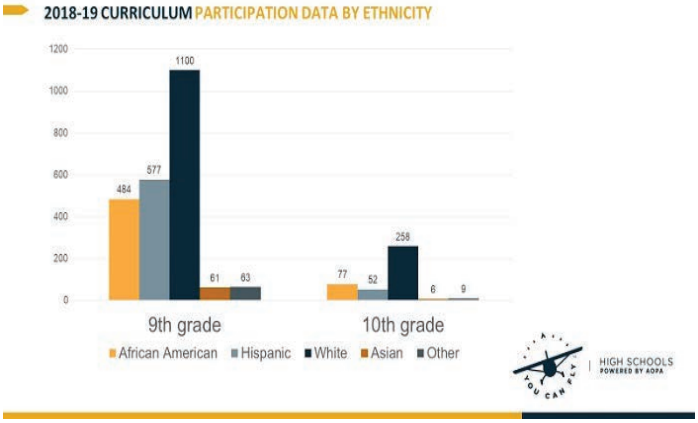
For the 2018–2019 school year, our curriculum was being used by an estimated 2,282 ninth-grade students at 80 schools in 27 states. There were another 461 students at 25 schools in 15 states using the tenth-grade curriculum.

We are already seeing a dramatic improvement in gender demographics when comparing students using the ninth-grade and tenth-grade curriculum during the 2018–2019 school year compared to today's pilot population as indicated in the chart below.



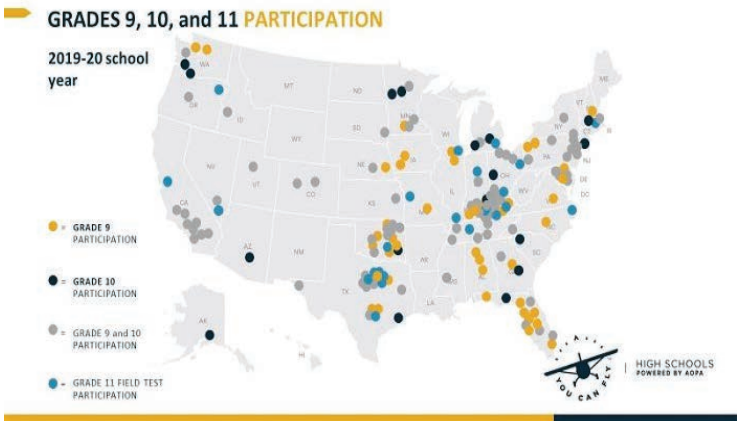
We are also seeing a dramatic improvement in diversity demographics where 52% of the students taking the ninth-grade curriculum and 44% taking the tenth-grade curriculum are non-white.

The chart below shows the ethnicity of the students participating in our program for the 2018–2019 school year.



For the 2019–2020 school year, we are seeing increased interest in using the AOPA high school curriculum. The number of schools using our ninth-grade curriculum has increased to 143 schools; while the tenth-grade has increased to 114 and the eleventh-grade field test is currently at 23 schools.

We are also increasing the footprint of the AOPA High School Initiative across the country for the 2019–2020 school year, as indicated in this chart.



The interest in our curriculum from high schools across the country has been overwhelming and we look forward to working with the Committee to ensure that high schools who want to teach students about aviation and all that if offers actually have that opportunity.

Mr. Chairman, before I conclude my remarks, if I may, and while not related to the FAA Reauthorization Act of 2018, I would like to again thank the Committee and mention the success of bipartisan legislation passed and signed into law as part of the FAA Extension, Safety, and Security Act of 2016.

Known as third class medical reform, and commonly referred to as BasicMed, this program is one of the most significant reforms for general aviation in decades. In just over two years since the program was launched, more than 50,000 private pilots are safely flying under these new medical requirements.

The FAA's implementation of this program has been tremendous and more and more private pilots are moving to this program, which includes medical education training for pilots. It also reduces the bureaucracy and costs that have frustrated pilots for decades. So again, I want to thank this Committee for their support of this new program.

Finally, Mr. Chairman, we must continue to work together, industry and government, to ensure we continue our nation's leadership in all sectors of aviation. The workforce grant programs this Committee included in the 2018 FAA Reauthorization are a great start.

As the Committee is aware, in order to meet bold challenges, we need bold initiatives. Recognizing this, I am hopeful the Committee will work with Senator Jim Inhofe of Oklahoma and others to establish a National Center for the Advancement of Aviation. We strongly believe standing up such a center will facilitate cooperation, collaboration, and coordination across all sectors of aviation; civil, commercial, and military—and which is so desperately needed.

A national aviation center would bring the industry together by fostering such things as programs that create a diverse and skilled aviation workforce, ensuring the deployment of STEM aviation educational opportunities for high school students, leveraging the sharing of new and emerging flight training methods, and conducting safety and economic data trend analysis. A national aviation center would do more to grow, develop, and promote aviation and bring the needed and long overdue collaboration of our collective industry that is so vital to our nation's economy. We certainly welcome the opportunity to work with the Committee on the development of this proposal.

I would like to again thank the Subcommittee for this important hearing today and look forward to answering any questions.

Mr. LARSEN. Thank you very much. I appreciate it, and the committee appreciates it. And now I turn to Mr. John—is it Breyault? Is that the pronunciation?

Mr. BREYAULT. It is Breyault, but I will——

Mr. LARSEN. Breyault, OK. We will take Breyault with the National Consumers League. You are recognized for 5 minutes.

Mr. BREYAULT. Thank you. Good afternoon, Chairman Larsen, Chairman DeFazio, and members of the subcommittee. My name is John Breyault, and I am the vice president for public policy, telecommunications, and fraud at the National Consumers League. I very much appreciate the opportunity to appear before you today and provide the perspective of the flying public to the subcommittee.

Founded in 1899, NCL is America's pioneering consumer and worker advocacy organization. Our nonprofit mission is to advocate for social and economic justice on behalf of consumers and workers in the United States and abroad.

The DOT is the sole agency in the United States with the power to enforce consumer protection statutes in the air travel marketplace. Unfortunately, progress on too many important consumer protection rulemakings teed up by the 2016 and 2018 FAA reauthorization bills has slowed to a crawl at best, and a halt at worst.

In my written testimony I detail the harm suffered by consumers in a number of areas, including overbooking, fee refunds, and the availability of fair fee and schedule data. Today, however, my remarks will focus on two areas of particular concern: minimum seat size standards and family seating.

Mr. Chairman, as you are no doubt painfully aware during your 5-plus hours of flights to and from Seattle, seat sizes on U.S. airlines have been steadily shrinking. Passengers and flight attendants have long expressed concerns about ever-smaller seat dimensions and dwindling seat pitch that could put at risk passengers' ability to quickly evacuate an aircraft in the event of an emergency.

In response, Congress directed the FAA to issue regulations establishing minimum seat sizes and pitch. Until today's testimony from Mr. Elwell, we had seen no indication that, however, the agency was prepared to initiate such a rulemaking by this October deadline. Indeed, the FAA has actively resisted judicial efforts by consumer advocates pressing it to act on this important safety issue.

You must not sit by and allow the FAA to dither or, at worst yet, allow the FAA to simply adopt whatever inhumane and unsafe seat size standard the airline industry favors.

A potentially even more serious problem is the issue of family seating. The 2016 FAA Reauthorization Act mandated that, within 1 year of enactment, the DOT must review and, "if appropriate," create rules requiring airlines to seat children aged 13 or under next to an accompanying family member. Incredibly, after a review that apparently included no input from family advocates, no comments from psychologists, or any public statements from the airlines, the DOT merely decided to add a page to its website about family seating.

The DOT's inaction is particularly troubling in the face of evidence that sexual assault on airplanes against minors is a significant safety concern. According to the FBI, in-flight sexual assaults increased by 66 percent from fiscal year 2014 to fiscal year 2016. In 2017 alone the FBI opened 63 investigations into sexual assault

on aircraft. The FBI found that children as young as 8 years old have been victims of sexual assault in the air.

Families are right to be concerned for their children's safety. In response to a FOIA request made by my colleagues at Consumer Reports, we now know that, from March 2016 to November 2018, 136 complaints were filed at the DOJ regarding family seating. It is clear from these complaints that when families with young children seek to sit together, airlines regularly impose or attempt to impose expensive fees for preferred seating assignments and priority boarding.

Numerous complaints involve airlines knowingly assigning seats apart from family to children as young as 2 years old. Families with children under the age of 5 reported being forced to rely on the kindness of strangers, or to beg other passengers to switch seats. In numerous cases, families were asked to deplane because of the inconvenience this caused. Parents cited the emotional trauma of children sitting alone, children who were autistic, or who suffer seizures. In multiple cases parents complained they were worried that young children sitting away from them were vulnerable to sexual assaults and could be in particular danger during emergencies.

DOT complaints are almost certainly just the tip of the iceberg. And yet, in the face of this evidence, the DOT claims that the number of complaints about families sitting together in the air do not justify action by the agency to protect the most vulnerable fliers.

Mr. Chairman, how many children will have to be assaulted on aircraft before the DOT acts? Is the DOT putting the desire of airlines to continue generating more than half a billion dollars annually in lucrative seat reservation fees ahead of children's safety? Simply creating a new consumer education webpage about family seating is not enough. The DOT's inaction on this issue has put children at greater risk.

Congress should demand answers from the DOT on the process it used to determine that it should do nothing substantive on this important children's safety issue, and mandate that the agency follow through on Congress' clear intent.

Chairman Larsen, Chairman DeFazio, Ranking Member Graves, and the members of the subcommittee, thank you for listening to the voice of consumers. I look forward to answering your questions.

[Mr. Breyault's prepared statement follows:]

Prepared Statement of John Breyault, Vice President, Public Policy, Telecommunications, and Fraud, National Consumers League

SUMMARY

The Department of Transportation ("DOT") is the sole agency in the United States with power to enforce consumer protection statutes in the air travel marketplace. The Airline Deregulation Act largely preempts and prohibits state attorneys general, state legislatures, municipalities and private litigants from stepping in to protect the health and safety of the flying public and basic fairness in the air travel marketplace. Recognizing this, the last two FAA reauthorization bills rightly mandated that the agency takes steps to promulgate regulations addressing concerns of the flying public in multiple issue areas, including overbooking, fee refunds, minimum seat sizes and family seating, just to name a few.

Unfortunately, progress on too many of these important consumer protection rules has slowed to a crawl at best and a halt at worst. Because of this, consumers continue to be harmed by abusive airline industry practices while the DOT dithers due to a combination of industry resistance, bureaucratic inertia and internal resistance to new regulations. October 2019 will mark one year since Congress passed the last FAA reauthorization bill. Many of the regulatory deadlines set in the legislation will soon come due. In addition, there are older rulemakings affecting family seating and data availability that the agency has indefinitely postponed or chosen not to act upon despite a Congressional mandates and compelling case for regulatory action.

Taken together, the DOT's actions and inactions on these important rulemakings paint a picture of an agency that places consumer protection and consumer safety bottom of its list of priorities. A bipartisan majority of Congress gave the DOT statutory authority in the Airline Deregulation Act to promote competition and consumer protection. It is imperative that Congress act to ensure that its mandates are not unduly delayed, or worse, ignored completely.

INTRODUCTION

The National Consumers League appreciates the opportunity to provide the subcommittee with our views on the implementation of Congressionally-mandated consumer protection regulations by the DOT and the Federal Aviation Administration ("FAA").

Founded in 1899, the National Consumers League ("NCL") is the nation's pioneering consumer and worker advocacy organization. Our non-profit mission is to advocate on behalf of consumers and workers in the United States and abroad.[1] NCL has long advocated for a fairer and more competitive airline industry for the 2.8 million consumers who fly in and out of U.S. airports every day.[2]

FAA REAUTHORIZATION LEGISLATION MANDATED IMPORTANT CONSUMER PROTECTION REGULATIONS TO ADDRESS ONGOING HARMS TO THE FLYING PUBLIC

In 2016[3] and 2018[4], Congress passed FAA reauthorization bills directing the DOT and FAA to commence important consumer protection-related rulemakings. These bills gave passengers and advocacy organizations like NCL hope that the DOT and FAA would begin to address some of the long-standing consumer protection concerns that have bedeviled and endangered the flying public for too long.

Today we find ourselves nearly a year removed from Congress passing its 2018 reauthorization bill. Yet, whether because of bureaucratic inertia, industry resistance, or policy differences within the DOT itself, many of these rulemakings have languished. In too many cases, rulemakings that Congress mandated years ago have still not resulted in meaningful consumer protection regulations. The impact is that needed reforms to address consumer concerns languish. This dampens confidence of the flying public in the ability of the DOT—the sole agency charged with consumer protection in the airline marketplace—to do its job.

The 2018 reauthorization bill included a number of consumer protection mandates that NCL supported but which have been neglected by the DOT. Among these are:

- § *421—Refunds for other fees that are not honored by a covered air carrier*—The DOT is mandated to promulgate regulations requiring airlines to refund any ancillary fees paid by passengers for services that were not received.[5] Congress directed this rulemaking to be initiated before October of this year. The DOT appears to have chosen to pair this rulemaking with action on baggage fee refunds that was initiated after the passage of the 2016 FAA reauthorization bill. In 2016, the DOT sought comments in response to an Advance Notice of Proposed Rulemaking ("ANPRM") on baggage fee refunds. The agency has yet to issue a rule related to baggage fee refunds specifically or ancillary fee refunds generally. Consumers thus find themselves at the mercy of airlines when their bags are delayed and they request a refund. Similarly situated are consumers who do not promptly receive a refund of fees such as seat reservation fees when those services are not provided.

---

[1] For more information, visit www.nclnet.org.

[2] Federal Aviation Administration. "Air Traffic By the Numbers." June 2019. Online: https://www.faa.gov/air_traffic/by_the_numbers/

[3] Public Law 114–190: "FAA Extension, Safety, and Security Act of 2016." (130 Stat. 615; Date: 7/15/2016). Online: https://www.congress.gov/114/plaws/publ190/PLAW-114publ190.pdf

[4] Public Law 115–254: "FAA Reauthorization Act of 2018." (Date: 10/5/2018). Online: https://www.congress.gov/115/bills/hr302/BILLS-115hr302enr.pdf

[5] Online: https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201904&RIN=2105-AE53

- § *425—TICKETS Act*—The TICKETS Act was designed to address the widespread practice of airline overbooking and the resultant bumping of ticketed passengers—sometimes involuntarily. The case for regulations to stop this was vividly illustrated by the shocking video of Dr. David Dao being forcefully and brutally dragged off United Express Flight 3411 on April 9, 2017.[6] § 425 rightly removed arbitrary limits on the amount of compensation that airlines offer ticketed passengers who are denied boarding. Despite passage of the TICKETS Act, no U.S. carrier (including United) has amended its Contract of Carriage to publicize its intent to comply with this change. We look forward to seeing the findings of the U.S. Government Accountability Office ("GAO") report on oversales, which is required to be communicated to Congress within a year of enactment of the 2018 reauthorization bill.
- § *577—Minimum Dimensions for Passenger Seats*—Passengers and flight attendants have long expressed concerns about shrinking seat sizes, dwindling seat pitch and possible links to serious health conditions such as deep vein thrombosis ("DVT") that could put at risk passengers' ability to quickly evacuate an aircraft in the event of an emergency. In response, Congress directed the FAA to issue regulations establishing minimum dimensions for seat pitch, width and length necessary for the safety of passengers. The FAA is required to issue regulations no later than October 2019 yet we have seen no indication that the agency is prepared to initiate such a rulemaking. Indeed, the FAA has actively resisted judicial efforts by consumer advocates pressing it to take action on this important safety issue.[7] Concerns have also been expressed that such a rulemaking may give airlines a green light to shrink seats beyond their current cramped dimensions based on the statute's "necessary for the safety of passengers" language.[8] Congress must not allow the FAA to simply adopt whatever inhumane seat size standard the airline industry favors.
- § *424—Aviation Consumer Advocate*—The 2018 reauthorization bill directed the DOT to create an Aviation Consumer Advocate ("ACA") position within the Aviation Consumer Protection Division. The ACA is charged with assisting consumers in resolving complaints filed with the DOT, identifying ways that the Department can improve enforcement of aviation consumer protection rules and identifying and recommending regulations and policies to better resolve consumer complaints. In March 2019 the DOT named Blane Workie, Assistant General Counsel for the DOT's Office of Aviation Enforcement and Proceedings to serve as the ACA.[9] While NCL and other advocates' views have been welcomed by the ACA, we believe that Congress's intent would be better served by having an ACA whose sole portfolio is consumer protection. We urge Congress to appropriate sufficient budget so that DOT can fund a standalone ACA position.

THREE YEARS OF DOT INACTION ON FAMILY SEATING LEAVES THE MOST VULNERABLE FLYERS AT GREATER RISK

While the 2016 FAA reauthorization bill required the DOT to undertake many consumer protection-related rulemakings, the lack of agency action on the issue of family seating is particularly egregious. § 2309 mandated that within a year after enactment, the DOT review and "if appropriate" create rules requiring airlines to seat children aged 13 or under next to an accompanying family member.

This is a common-sense consumer protection issue. Parents should not have to absorb the expense of paying an expensive seat reservation or priority boarding fees in order to sit together with their young children. Incredibly, after a review that apparently included no input from family advocates, no comments from psychologists, or any public statements from the airlines, the DOT decided that no regulation was necessary.[10]

---

[6] Victor, Daniel and Stevens, Matt. "United Airlines Passenger Is Dragged From an Overbooked Flight," *New York Times*. April 10, 2017. Online: https://www.nytimes.com/2017/04/10/business/united-flight-passenger-dragged.html

[7] Glusac, Elaine. "FAA Declines to Regulate Airplane Seat Size," *New York Times*. July 6, 2018. Online: https://www.nytimes.com/2018/07/06/travel/faa-plane-seat-size.html

[8] Silk, Robert. "FAA's seat size mandate likely changes nothing," *Travel Weekly*. November 1, 2018. Online: https://www.travelweekly.com/Robert-Silk/FAA-seat-size-mandate-likely-changes-nothing

[9] Department of Transportation. "DOT Announces April 4 Meeting of the Newly Reestablished Aviation Consumer Protection Advisory Committee, Names New Aviation Consumer Advocate." Press release. March 20, 2019. Online: https://www.transportation.gov/briefing-room/dot1319

[10] McCartney, Scott. "Flying Together With Your Children Keeps Getting Tougher," *Wall Street Journal*. ("The agency recently determined 'issuing a policy was not appropriate at this

Recently, in response to a Freedom of Information Act request by Consumer Reports, the DOT provided a number of complaints it had received from passengers regarding airlines' family seating policies. Several themes emerged. First, complainants mentioned consistently unhelpful airline employees, including reservation staff, gate agents and flight attendants. Second, the reactions by airline staff to concerns about families being separated were sometimes actively harmful, including ejecting families from flights. Finally, there appear to have been cases where children over the age of 2 were required to travel in their parents' laps, in violation of federal law.

Since family seating was first raised, two trends have made the situation even more difficult for passengers traveling with small children. First, the number of seats that airlines consider "premium" (and which require an additional fee to reserve) continues to increase.[11] The industry is moving beyond charging extra for seats with extra legroom and is now charging for seats that are a little closer to the front of the plane or are aisle or window seats. It is not uncommon for single, middle seats near the back of the aircraft to be the only seats available for assignment without an additional fee.[12] Second, the percentage of seats that are occupied, known as "load factors," continues to increase.[13] That means that if a flight is cancelled or a connection is missed, it will be much harder for families to find any seats together on another flight.

The DOT's inaction is especially troubling in the face of voluminous evidence that sexual assault on airplanes against minors is a significant safety concern.[14] [15] [16] According to the Federal Bureau of Investigation ("FBI"), in-flight sexual assaults increased by 66% from FY2014 to FY2016. In 2017 alone, the FBI opened 63 investigations into sexual assault on aircraft.[17] DOT complaint data obtained by FlyersRights.org detailed 20 incidents of in-flight sexual assault from 2012–2018, including one against a child on an Air France flight in 2017.[18] The cases that are reported to law enforcement are likely just the tip of the iceberg. And yet, the DOT claims that the number of complaints about families sitting together in the air do not justify action by the agency to protect the most vulnerable flyers.[19]

This begs the question: How many children will have to be assaulted on aircraft before the DOT acts? Is the DOT putting the desire of airlines to continue generating more than half a billion dollars annually in lucrative seat reservation fees ahead of children's safety?[20] As FBI Special Agent David Gates, who regularly investigates instances of mid-air sexual assault, accurately stated "even one victim is

---

time,' a DOT official says.") September 12, 2018. Online: https://www.wsj.com/articles/flying-together-with-your-children-keeps-getting-tougher-1536764795

[11] Koenig, David. "United is Adding 1,600 Premium Seats to Its Fleet," *Associated Press*. February 7, 2019. Online: https://www.afar.com/magazine/united-is-adding-1600-premium-seats-to-its-fleet

[12] Villano, Matt. "Airline seat selection fees: It's pay to play," *CNN Travel*. January 5, 2019. Online: https://www.cnn.com/travel/article/airline-seat-selection-fees/index.html

[13] IATA. "Passenger load factor hits 28-year high." October 19, 2018. Online: https://airlines.iata.org/news/passenger-load-factor-hits-28-year-high

[14] Miller, Michael. "'This was 30 minutes of hell for this young lady': Unaccompanied minor groped on flight," *Washington Post*. June 20, 2016. Online: https://www.washingtonpost.com/news/morning-mix/wp/2016/06/20/this-was-30-minutes-of-hell-for-this-young-lady-unaccompanied-minor-groped-on-flight/

[15] "'Creep' harasses teen during flight; Canadian journalist intervenes," *The Strait Times*. March 27, 2019. Online: https://www.straitstimes.com/world/united-states/creep-harasses-teen-during-flight-canadian-journalist-intervenes

[16] Burton, Lynsi. "Teen sexually assaulted on Seattle flight; lawsuit says United Airlines did nothing," SeattlePI.com. January 22, 2019. Online: https://www.seattlepi.com/local/crime/article/Teen-sexually-assaulted-on-Seattle-flight-13552767.php

[17] De Diego, Javier *et al*. "FBI: Sexual assaults on flights increasing 'at an alarming rate,'" CNN.com. June 20, 2018. Online: https://www.cnn.com/2018/06/20/politics/fbi-airplane-sexual-assault/index.html

[18] Applebaum, Andrew. "Recent In-Flight Sexual Abuse Complaints to Feds Released By Airline Passenger Group . . . Nothing Done?" FlyersRights.org. November 29, 2018. Online: https://flyersrights.org/press-release/recent-in-flight-sexual-abuse-complaints-to-feds-released-by-airline-passenger-group/

[19] U.S. Department of Transportation. "DOT's Review of U.S. Airline Family Seating Policies." September 17, 2019. ("Based on the low number of complaints received and review of airline family seating policies, the Department determined that it was unnecessary to direct airlines to establish policies on family seating.") Online: https://www.transportation.gov/individuals/aviation-consumer-protection/review-us-airline-family-seating-policies

[20] Gilbertson, Dawn. "Skyrocketing seat selection fees enrage flyers, enrich airlines," *USA Today*. December 18, 2018. Online: https://www.usatoday.com/story/travel/flights/2018/12/19/united-american-delta-preferred-seat-fees/2293721002/

unacceptable."[21] Congress should demand answers from the DOT on the process it used to determine that it should take advantage of a legislative loophole in the 2016 reauthorization bill and leave children at greater risk.

THE DOT SHOULD REINSTATE THE RFI ON FARE, SCHEDULE AND AVAILABILITY INFORMATION AND ACT PROMPTLY TO DEFINE ITS UNFAIR OR DECEPTIVE PRACTICES AUTHORITY

In addition to rulemakings mandated by the last two FAA reauthorization bills, it is important to highlight pending interpretive and non-legislative consumer protection rulemakings that DOT should act upon.

Of special note, the DOT should reinstate the Request for Information (RFI) on Airline Distribution and Display of Fare, Schedule and Availability Information that it suspended in March 2017.[22] The DOT's October 2016 RFI inquiry came in response to concerns expressed by consumer groups, online travel bookings websites and Members of Congress regarding restrictions placed on distribution and display of airline flight information, such as fares, fees and schedules.

Reinstating the RFI is supported by every major national consumer organization as well as travel industry economists and the General Services Administration (which oversees air travel by federal officials). This support is based on the knowledge that withholding of critical information from independent online travel agencies ("OTA") and metasearch websites makes it more difficult for consumers to conveniently and reliably comparison shop.

Research commissioned by the airlines themselves found that 40% of leisure travelers feel they have to visit too many sites when booking travel. The airlines' data found that the average number of digital channels being used increased 73% in five years, that 43% of travelers disclosed that they want to spend less time researching flights and that 56% of passengers say they will change airlines to save money. In the same study, the airlines reveal that they want to increase sales through their own sites at the expense of independent comparison websites, because they make more money on tickets sold on their websites, which only show their own fares and schedules.[23]

A study commissioned by the Travel Technology Association found that consumers pay an average $30 more per ticket, or $6.7 billion more in airfare annually when airlines restrict flyers' ability to comparison shop. It is estimated that 41 million Americans will choose not to travel each year, as a result of sticker shock stemming from the airlines' blocking of flight data used by comparison sites.[24] This finding is backed up by data from the GAO, which found that despite fewer passenger comforts, the cost of air travel has increased.[25] As what consumers must pay to fly goes up, it will become even more critical for the DOT to safeguard consumers' ability to comparison shop.

The evidence clearly shows that the airlines' practice of denying fare, fee and schedule data to OTAs and metasearch websites harms consumers. Unfortunately, the DOT acquiesced to the airlines' wish list and terminated even a cursory examination of their anticompetitive practices. Congress should press the DOT to reinstate this important proceeding.

Finally, the DOT will soon publish proposed rules defining the agency's unfair or deceptive practices authority.[26] The DOT is the sole agency at any level of government charged with consumer protection in the airline industry. Given the deregulatory stance of the current DOT leadership, we are concerned that the agency could potentially use this rulemaking as an excuse to weaken its already dubious willingness to hold airlines to account for their many anti-consumer practices. Congress should closely monitor this rulemaking to ensure that the DOT does not become a consumer protection agency in name only.

---

[21] Federal Bureau of Investigation. "Sexual Assault Aboard Aircraft: Raising Awareness About a Serious Federal Crime," April 26, 2018. Online: https://www.fbi.gov/news/stories/raising-awareness-about-sexual-assault-aboard-aircraft-042618

[22] Docket ID: DOT–OST–2016–0204

[23] International Air Transport Association. *The Future of Airline Distribution, 2016–2021*. October 2016. Online: https://www.iata.org/whatwedo/airline-distribution/ndc/Documents/ndc-future-airline-distribution-report.pdf

[24] Charles River Associates. *Benefits of Preserving Consumers' Ability to Compare Airline Fares via OTAs and Metasearch Sites*. May 15, 2015. Online: https://www.airtravelfairness.org/wp-content/uploads/2017/09/CRAFinalReport.pdf

[25] Government Accountability Office. "Information on Airline Fees for Optional Services." September 2017. Online: https://www.gao.gov/assets/690/687258.pdf

[26] RIN: 2105–AE72. Online: https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201904&RIN=2105-AE72

CONCLUSION

The DOT is the agency that the millions of American travelers and foreign visitors to the U.S. depend on to hold the airline industry accountable for their safety, security, reasonability of fees and fair treatment in air travel. In addition, the DOT is charged with ensuring that the airlines do not abuse their dominant position in the domestic air travel marketplace. The numerous rulemaking processes mandated by Congress are intended to address many of the consumer protection ills that have frustrated and endangered the flying public for far too long.

Unfortunately, in too many cases, it appears that industry resistance coupled with bureaucratic inertia and internal opposition at the DOT has caused important rulemakings to languish for months and even years. The DOT has availed itself of legislative loopholes, particularly in regards to families sitting together, to delay or deny rulemakings that would address pressing safety and competition issues in the industry.

Allowing an industry like the airlines to self-regulate is a recipe for disaster. It is incumbent upon Congress to use its oversight role to ensure that the DOT is not asleep at the switch when it comes to consumer protection. States, counties and cities, are preempted from acting to hold the airlines accountable. Private litigants are largely restricted to small claims courts where compensation is limited. Only Congress and DOT have the power to protect competition, promote fairness and ensure the safety of all passengers, particularly children, in the air.

Chairman Larsen, Ranking Member Graves and the members of the Aviation Subcommittee, on behalf of the National Consumers League, thank you for including the consumer perspective as you consider these important issues.

Mr. LARSEN. Thank you. And last—and the best—from the great State of Washington, Dave Zurfluh is the national president of the Paralyzed Veterans of America.

And we really appreciate you making the trip out here.

And I just want to—we were talking earlier before we got started about Ernie Butler, who is out of Monroe, Washington, and was a great advocate who passed away a few years ago. He was a great advocate for the PVA, as well. And I want to recognize the other folks from PVA here, and thank you for your service to the country, as well. Thanks a lot.

Dave, go ahead.

Mr. ZURFLUH. Chairman Larsen, Ranking Member Graves, and members of the subcommittee, Paralyzed Veterans of America thanks you for the opportunity to testify for this oversight hearing regarding implementation of the FAA Reauthorization Act of 2018.

This legislation included many provisions that, if properly implemented by the U.S. Department of Transportation, would improve the air travel experience of catastrophically disabled veterans and all people with disabilities.

The Air Carrier Access Act is a civil rights law that protects not only PVA members, or all honorably discharged veterans with catastrophic disabilities, but also the rights of all individuals living with disabilities to access to air travel.

Unfortunately, PVA members routinely report incurring bodily harm in boarding and deplaning aircraft, and their wheelchairs, particularly power wheelchairs, are often damaged while stowed.

Today's aircraft present a rather hostile environment for the many passengers with disabilities, which often results in profound consequences for passengers with disabilities. PVA Senior Vice President Charles Brown, in attendance today—in today's hearing—was severely injured earlier this year when he was dropped while attempting to board an aircraft.

Mr. Brown fractured his tailbone and, as a result of this incident, subsequently developed a skin breakdown and bone infection. As a

result of his injuries, he spent 3 months as an inpatient at the spinal cord injury unit at the VA's Medical Center in Miami. Now he is very apprehensive about flying, and drove to Washington, DC, from south Florida to attend recent PVA meetings and events.

Unfortunately, Mr. Brown's situation is not unique among PVA members. I, too, have experienced disability-related problems in air travel. In fact, problems with air travel are one of our most common complaints that we receive from our members.

PVA was pleased to work with members of the House Transportation and Infrastructure Committee and other House disability champions on inclusion of several disability-related provisions in the FAA Reauthorization Act of 2018.

The law included provisions that will inform air travel passengers about their rights under the ACAA, improve the assistance they receive from air carriers, and establish formal lines of communication between the air travel industry, the disability community, and the DOT to address barriers to air travel.

The law also requires a forward-looking study designed to determine the feasibility of passengers flying while in their wheelchairs.

In the interest of time I would like to discuss only a few of these provisions.

Section 440 included requirement for the Secretary to determine whether the regulations governing training programs or assisting passengers like paralyzed veterans are sufficient, and whether hands-on training should be part of the regular required training regimen.

It is unconscionable to think that someone with a spinal cord injury or disorder should be assisted in multiple transfers to board and subsequently deplane an aircraft without having been properly educated. It is dangerous for not only those passengers, but also for those who are assisting them. The experience of many of our members who have been injured during this process is evidence enough for PVA that current regulations are not sufficient to guarantee safe passage for these passengers.

Section 439 required the Secretary to establish an advisory committee on the air travel needs of passengers with disabilities. I am pleased to report that the Secretary publicly announced the formation of the Air Carrier Access Act Advisory Committee last Friday. PVA was honored to have a member of our national staff chosen to represent the disabled veterans on this committee.

We are hopeful that one of the committee's tasks will be to assist the Secretary in the development of the Airline Passengers with Disabilities Bill of Rights, required in section 434.

I also want to highlight our support for a general consumer provision in the FAA reauthorization that required GAO to study lavatory access on aircraft. When I fly I purposely dehydrate myself to limit the possibility that I might need to use the lavatory while on the aircraft, because they are not accessible for people with mobility impairments. This is a typical protocol for many members of PVA's executive committee who are here in the audience today.

When I fly to Washington, DC, from my home in Ruston, Washington, I intentionally book flights that require layovers in the middle of the country so that I will not have to deprive myself of using a lavatory on a cross-country flight. Even then, I only allow myself

to begin rehydrating once the flight is approximately 30 minutes from landing.

The dignity of being able to access a lavatory cannot be underestimated, and should not be measured against the cost of doing so. If lavatories are going to be made available on commercial aircraft, then they should be accessible to all passengers.

The FAA Reauthorization Act represents an important step forward in efforts to improve the air travel experience of passengers with disabilities. However, more work remains to be done. We want air carriers to do the right thing. Many times that means we need Congress and the Department of Transportation to guide them.

PVA thanks you for this opportunity to express our views, and we are happy to answer any questions you may have.

[Mr. Zurfluh's prepared statement follows:]

Prepared Statement of David Zurfluh, National President, Paralyzed Veterans of America

Chairman Larsen, Ranking Member Graves, and members of the Subcommittee, Paralyzed Veterans of America (PVA) thanks you for the opportunity to testify for this oversight hearing regarding implementation of the FAA Reauthorization Act of 2018 (Public Law 115–254). This legislation included many provisions that if properly implemented by the U.S. Department of Transportation (DOT) would improve the air travel experience of catastrophically disabled veterans and all people with disabilities.

Protections in air travel for people with disabilities began in earnest when President Ronald Reagan signed into law the Air Carrier Access Act (ACAA). The ACAA, which prohibits disability-based discrimination in air travel, was the result of a U.S. Supreme Court decision in *Department of Transportation v. Paralyzed Veterans of America*, 477 U.S. 597 (1986). In this case, the Court held that air carriers were not subject to Section 504 of the Rehabilitation Act of 1973, as amended, unless they received direct federal financial assistance. As a result of this decision, PVA led the charge in advocating for Congress to pass protections that would finally end discrimination against people with disabilities in air travel.

The ACAA is a civil rights law that protects not only PVA members, who are all honorably discharged veterans with catastrophic disabilities, but also the rights of all individuals living with disabilities to access air travel. Before the ACAA, people with disabilities were routinely forced to travel with an attendant at their own expense, even if they did not need assistance to fly safely; required to sit on a blanket for fears that they might soil the passenger seat; or simply refused passage. The ACAA has provided passengers with disabilities improved consistency in air travel. Through this law, air carriers must provide passengers with disabilities the opportunity to preboard, if additional time or assistance is needed in boarding the aircraft; timely assistance in boarding and deplaning; proper stowage of assistive devices; and appropriate seating accommodations.

Despite improvements in air travel over the last three decades for passengers with disabilities, too many still encounter regular problems in air travel due to their disabilities. PVA members routinely report incurring bodily harm in boarding and deplaning aircraft, and their wheelchairs, particularly power wheelchairs, are often damaged while stowed. In addition, members have expressed difficulty in receiving appropriate seating accommodations on aircraft and often encounter air carrier personnel and contractors who are not appropriately trained in assisting passengers with catastrophic disabilities. Consequently, some of our members and other individuals with disabilities choose to drive long distances rather than risk personal injury or damage to their mobility devices.

In order for a person with a permanent disability such as a spinal cord injury to board or deplane an aircraft, he or she has to be transferred from his or her customized wheelchair to an aisle chair, a small, narrow device, prior to entering the aircraft. The passenger is then maneuvered backwards onto the aircraft and pulled down the aisle to his or her seat. Within the confines of the cabin, the individual is then transferred to an aircraft passenger seat, where he or she will most likely remain until the process is repeated when the individual departs the aircraft.

Today's aircraft present a rather hostile environment for many passengers with disabilities, particularly for those who are unable to ambulate. This environment often results in profound consequences for passengers with disabilities. For example, PVA's Senior Vice President, Charles Brown, in attendance at today's hearing, was severely injured earlier this year when he was dropped while attempting to board an aircraft. Mr. Brown fractured his tail bone as a result of this incident and subsequently developed skin breakdown and a bone infection. As a result of his injuries, he spent three months as an in-patient at the Spinal Cord Injury unit at the VA's Medical Center in Miami. Because of his injuries, he is very apprehensive about flying and drove to Washington, D.C. from south Florida to attend recent PVA meetings and events.

Unfortunately, Mr. Brown's situation is not unique among PVA members. From our former national treasurer's broken wheelchair; our deputy executive director's need to pull himself down the aisle to reach his own wheelchair because assistance never arrived; to a wheelchair athlete who developed stage three pressure ulcers on his backside after being asked to wait on an aisle chair for 30 minutes with the assurance that his own wheelchair would be delivered shortly, the barriers to safely access air travel are numerous. In fact, problems with air travel are one of the most common complaints that we receive from our members.

Although I am currently using a cane to assist with mobility, I used a wheelchair for the first four years following my injury. As I age, I know that I will again be fully dependent on my wheelchair for mobility. Each year, I fly 25–40 round trips. I, too, have experienced disability-related problems in air travel.

A couple of years ago, I severely injured my hip, and as a result, I needed to use my wheelchair instead of my cane for mobility. During this time, I needed to fly for PVA business but was apprehensive because of past problems that I had experienced and the problems relayed by many fellow PVA members. I transferred without assistance onto the aisle chair to avoid putting myself at too much risk. As I was pulled down the aisle, my knee hit nearly every armrest on the way back. Each time, the jolt sent pain radiating to my injured hip. Once I arrived at my seat, I was determined to transfer myself because I could not further risk my health and safety at the hands of the air carrier's assistant.

To address disability-related complaints under the ACAA, passengers with disabilities may file complaints with the specific air carrier and DOT. In 2017, passengers filed 34,701 disability-related complaints as reported by 190 domestic and foreign air carriers, which represents a 6.5 percent increase over 2016. Top complaints with U.S. carriers for passengers with paraplegia or quadriplegia include failure to provide passenger assistance and appropriate seating accommodations. During 2018, passengers filed 828 disability-related complaints directly with DOT.

It is because of the experiences of our members and those of people with disabilities more broadly that PVA has once again been leading the charge to improve air travel for all people with disabilities. PVA was pleased to work with members of the House Transportation and Infrastructure Committee and other House disability champions on the inclusion of several disability-related provisions in the FAA Reauthorization Act of 2018. Congress's recognition of the issues encountered by PVA members and millions of people with disabilities was a tremendous victory for all passengers with disabilities.

Title IV, Subtitle B, Aviation Consumers with Disabilities, included 11 provisions focused solely on air travel for passengers with disabilities. These provisions include those that will inform air travel passengers about their rights under the ACAA, improve the assistance they receive from air carriers, and establish formal lines of communication between the air travel industry, the disability community, and DOT to address barriers to air travel. The law also requires a forward-looking study designed to determine the feasibility of passengers who depend on wheelchairs for their mobility to remain in them while on the aircraft.

In December 2018, DOT complied with Section 441, Transparency for Disabled Passengers. This section required large domestic air carriers to report on a monthly basis the number of wheelchairs and scooters enplaned and subsequently damaged. Although DOT had finalized the regulation implementing this requirement in November 2016, DOT subsequently delayed implementation in March 2017 until January 1, 2019.

As a result of Congress's action, DOT implemented the requirement on December 4, 2018. For the first six months of 2019, 10 carriers reported enplaning 294,216 wheelchairs and scooters and mishandling 4,777 of them.[1] We are pleased that PVA

[1] U.S. Department of Transportation, Aviation Consumer Protection Division, Office of Aviation Enforcement and Proceedings, Air Travel Consumer Report, Mishandled Wheelchairs and Scooters: Ranking of U.S. Reporting Marketing Carriers* (YTD) 42 (Aug. 2019), https://

members and all people with disabilities now have publicly available information about the treatment of assistive devices on U.S. air carriers and are able to make informed choices when they purchase their tickets. We are also working with several U.S. carriers and wheelchair manufacturers to improve handling of wheelchairs during transport.

Nearly a year after enactment of the FAA Reauthorization Act, however, we are still waiting for information from DOT regarding the Secretary's review and needed revision of regulations ensuring timely, dignified, and effective assistance for passengers with disabilities. Section 440, Regulations Ensuring Assistance for Passengers with Disabilities in Air Travel, required the Secretary to perform a review, and as necessary, to make revisions to the regulations governing assistance under the ACAA within 180 days of enactment. The Secretary was also required to determine whether the regulations governing training programs for assisting passengers, like paralyzed veterans, are sufficient and whether hands on training should be part of the required regular training regimen.

It is unconscionable to think that someone with a spinal cord injury or disorder should be assisted in multiple transfers to board and subsequently deplane an aircraft without having been properly educated about how to assist them. It is dangerous for not only those passengers, but also for those who are assisting them. The experience of many of our members who have been injured during this process is evidence enough for PVA that the current regulations are not sufficient to guarantee safe passage for these passengers. We look forward to the Secretary's review.

In the meantime, we are also waiting on DOT to publicly announce the members of the Advisory Committee on the Air Travel Needs of Passengers with Disabilities. Section 439 lays out the requirements for the Secretary to establish a committee that would identify disability-related access barriers, recommend improvements, and anticipate future problems that may result from industry trends. The advisory committee is to include people with disabilities, disability organizations, air carriers, service providers, aircraft and wheelchair manufacturers, and organizations representing veterans with disabilities.

PVA looks forward to the establishment of this advisory committee because we believe that it will provide a formal, ongoing opportunity for stakeholders to work toward solutions that will improve access to air travel for passengers with disabilities. We urge DOT to move forward as expeditiously as possible to officially establish the committee and schedule its inaugural meeting.

Another key provision in the law that we believe will improve air travel for passengers with disabilities is the requirement for an Airline Passengers with Disabilities Bill of Rights. Section 434 requires the Secretary to partner with disability community and air carrier stakeholders to develop a plain language bill of rights that governs the treatment that passengers with disabilities can expect to receive under the ACAA. A protection inherent in the ACAA that must be included is the right to be treated with dignity and respect.

Although there is no deadline in the law for DOT to comply with this requirement, we hope that collaborative efforts to draft the bill of rights will begin this year. We believe that the bill of rights presents an important opportunity to increase awareness of the ACAA's protections for people with disabilities. In addition, the requirement for air carriers to train their personnel and their contractors on these rights has the potential to improve the assistance services that passengers with disabilities receive during travel.

PVA also strongly supported the requirement in Section 432 for the U.S. Access Board to work with DOT on a study to determine the feasibility of in-cabin wheelchair restraint systems to allow passengers who are dependent on their wheelchairs to avoid transferring into an aircraft seat. Instead, passengers would be able to fly while seated in their wheelchair. A determination of the feasibility of flying while seated in a wheelchair is one of the first steps in the effort to bring air access in line with access in other modes of transportation such as buses, subways, and passenger trains that do not require people who use wheelchairs to stow them.

If deemed compliant with cabin safety requirements, allowing passengers to fly while remaining in their wheelchairs would reduce risks to their health and safety and to those who currently must assist them in transferring to and from aisle chairs, passenger seats, and their own wheelchairs. We look forward to the study's findings. We also request that carriers and aircraft manufacturers take seriously these efforts to improve air travel for passengers who depend on wheelchairs.

Although not included in the disability-specific provisions, I want to highlight our support for the requirement in Title IV, Subtitle A, Section 426 for the U.S. Govern-

---

www.transportation.gov/sites/dot.gov/files/docs/resources/individuals/aviation-consumer-protection/346301/august-2019-atcrr1.pdf.

ment Accountability Office (GAO) to study lavatory access on aircraft. The law explicitly required GAO to assess lavatory accessibility for passengers with disabilities. Despite recent focus on the accessibility of aircraft lavatories for all passengers, PVA members have been involved for decades in efforts to provide access to lavatories on single-aisle aircraft for passengers with disabilities.

When I fly, I purposefully dehydrate myself to limit the possibility that I might need to use a lavatory while on the aircraft. This is the typical protocol for many members of PVA's Executive Committee who are in the audience today. When I fly to Washington, D.C. from my home in Ruston, Washington, I intentionally book flights that require layovers in the middle of the country so that I will not have to deprive myself of using a lavatory on a cross country flight. Even then, I only allow myself to begin rehydrating once the flight is approximately 30 minutes from landing.

GAO has been in contact with PVA regarding our efforts to improve access to lavatories for people with disabilities. We are pleased that the unique needs of passengers with limited mobility have been included in the broader discussion about the accessibility of lavatories for all passengers. The dignity of being able to access a lavatory cannot be underestimated and should not be measured against the cost of doing so. If lavatories are going to be made available on commercial aircraft, then they should be accessible to all passengers.

We also hope that Congress will hold DOT accountable for meeting requirements in Section 2108 of the FAA Extension, Safety, and Security Act of 2016 (Public Law 114–190) to promulgate a rule regarding the accessibility of lavatories on single-aisle aircraft. To date, DOT has failed to publish a rule despite being given a deadline of July 2017 to do so. Access to lavatories was also the subject of a DOT negotiated rulemaking in 2016. In December 2016, DOT formally announced that the committee charged with the negotiation, comprised of disability advocates, air carriers, and aircraft manufacturers, had come to an agreement that would ultimately lead to accessible lavatories on single-aisle aircraft.

Despite promises from DOT to move forward with an agreement, and a congressional requirement to publish a supplemental notice of proposed rulemaking, DOT has yet to publish the rule.[2] Although DOT is planning to publish two rules by the end of the year regarding lavatory accessibility, the one regarding full access to lavatories will be an advance notice of proposed rulemaking regarding the cost benefit of requiring fully accessible lavatories.[3] PVA believes that when industry and consumers agree on a proposed course of action, as they did with the negotiated rulemaking, that DOT should remove bureaucratic hurdles and move forward with those agreements.

The disability-related provisions in the FAA Reauthorization Act and the study on lavatory access represent an important step forward in efforts to improve the air travel experience of passengers with disabilities. However, more work remains to be done. Thus, we are proud to strongly support the Air Carrier Access Amendments Act, H.R. 1549, which was introduced in March by Rep. Jim Langevin (D–RI). This legislation would greatly improve accessibility within aircraft and strengthen enforcement of the ACAA.

The Americans with Disabilities Act ensures access to mass transportation in the United States. Aircraft, however, are only covered by the ACAA and have very limited accessibility features for people with disabilities. Neither passenger seats nor the path to reach them meet any accessibility standards, other than a requirement for lowering of armrests on some seats. PVA believes that standards for new aircraft are necessary to ensure a future with aircraft that will meet the needs of passengers with disabilities and our aging population. Only when they are able to independently access aircraft without depending on unsafe, inefficient assistance will air travel truly be a viable option for all Americans.

One of the most important changes needed to the ACAA statute concerns enforcement of its civil rights protections. The statute must be amended to require DOT to refer alleged violations that are matters of general importance to the Department of Justice. Furthermore, the statute must be amended to restore a private right of action for passengers with disabilities under the ACAA.

Unlike laws governing access for people with disabilities in other forms of transportation, the ACAA does not explicitly allow people with disabilities to enforce their

---

[2] PVA filed a lawsuit in the U.S. Court of Appeals for the Tenth Circuit in July 2018 to compel DOT to publish the rule as agreed to during the negotiated rulemaking.

[3] PVA's litigation is stayed pending DOT's promise to publish a notice of proposed rulemaking on short-term accessibility improvements and an advance notice of proposed rulemaking on long-term accessibility requirements.

civil rights, if needed, in a court of law. Prior to 2001, some courts[4] had held that the ACAA allowed for a private right of action. Following the U.S. Supreme Court's decision in *Alexander v. Sandoval*, 532 U.S. 275 (2001),[5] however, the Second,[6] Fifth,[7] Ninth,[8] Tenth,[9] and Eleventh[10] U.S. Courts of Appeals have ruled that there is no private right of action under the ACAA. We believe that Congress must act to restore this right to paralyzed veterans and all passengers with disabilities.

We believe that pilots, flight attendants, gate agents and other carrier personnel want to do their best to assist all passengers, including those who have disabilities. However, as an industry, air carriers' policies, procedures, and business decisions often prevent passengers with disabilities from having a safe, satisfying air travel experience. We want air carriers to do the right thing. Many times, that means we need Congress and DOT to guide them.

PVA thanks you for this opportunity to express our views. We would be happy to answer any questions you may have.

Mr. LARSEN. Thank you, Mr. Zurfluh.

I will start my questions with Mr. Zurfluh. The reauthorization bill directs the DOT to actually, as well, study the feasibility of in-cabin wheelchair restraint systems to cut down on the need to transfer folks from a wheelchair to a seat. Can you elaborate at all on how an in-cabin wheelchair restraint would change the flight experience with passengers with disabilities?

Mr. ZURFLUH. I can give you several, Mr. Larsen. I have been both a witness and experienced it personally.

A couple of years ago I had fallen and hurt my hip. And the one scary thing that these individuals face is that—the aisle chair when you go down the back of an aircraft. I had hurt my hip, and I was scared that the people weren't trained to properly lift me into that seat. So I chose to do it myself the best I could.

The individuals that were taking me back weren't paying attention. They banged my leg on every aisle chair, about 15 rows back. And the pain was so intense, but I had an event that I promised I would come to DC for, and so I delivered on that promise.

Ernie Butler also experienced similar situations, and he would, instead of being on an aisle chair, grab the back of chairs and get his wheelchair as close as he could into the cabin, grab the back of the seats, kind of bunny hop himself to wherever he needed to be, for fear that they would injure him like they did in the past.

He did this probably 40 times before his passing, but it was—everybody here to my left has those stories, and experienced that situation. And the fear of getting on an aisle chair is immense to all of us.

Mr. LARSEN. In your written testimony—I believe in yours—you recount the number of wheelchair damage reports. Was that in your written statement?

Mr. ZURFLUH. I don't have the exact number, but it is in the thousands.

Mr. LARSEN. Yes, OK. I just wanted to highlight that for the committee.

---

[4] The U.S. Courts of Appeals for the Fifth and Eighth Circuits had previously ruled that there is a private right of action under the ACAA. *Shinault v. American Airlines, Inc.*, 936 F.2d 796 (5th Cir. 1991) and *Tallarico v. Trans World Airlines, Inc.*, 881 F.2d 566 (8th Cir. 1989).

[5] In *Sandoval*, the Court held that a private right of action should not be implied absent obvious congressional intent.

[6] *Lopez v. Jet Blue Airways*, 662 F.3d 593 (2d Cir. 2011).

[7] *Stokes v. Southwest Airlines*, 887 F.3d 199 (5th Cir. 2018).

[8] *Segalman v. Southwest Airlines Company*, 895 F.3d 1219 (9th Cir. 2018).

[9] *Boswell v. Skywest Airlines, Inc.*, 361 F.3d 1263 (10th Cir. 2004).

[10] *Love v. Delta Airlines*, 310 F.3d 1347 (11th Cir. 2002).

Mr. ZURFLUH. Actually, tens of thousands would be more specific.

Mr. LARSEN. OK. If we keep talking it might be 100,000.

[Laughter.]

Mr. LARSEN. So thank you.

Mr. Walden, let's just—during your testimony I was talking to the staff a little bit about the integration pilot program, and the fact that we gave direction to FAA to fund that for 2 years. Do you have any thoughts about whether or not it needs to be extended beyond the 2-year legal limit?

Mr. WALDEN. Thank you for the question. In my opening remarks I mentioned that success has been uneven. We have had reports.

There are some participants that have beyond-visual-line-of-sight authority that are engaged in package delivery, and only one for compensation or hire. Other test sites are—others have not been that active, and it has been taking a long time to get waivers.

So we would recommend not only that the program be extended, but be broadened. I think when the Secretary announced the initial selection, it was the idea that others would be selected at a later time. There are a number of applicants that were very well qualified.

With the matter—with regard to most of the IP programs, they were de-scoped at the start, so that if you—if an IPP said, "We are selected, we have got 15 projects," and the FAA says, "Well, we will go with three right now," and that left a lot of good work not done. So it needs to have more FAA resources. It needs to be extended. It needs to be broadened.

Mr. LARSEN. All right. Ms. Nelson, you testified that three airlines now have—your members have negotiated in the agreements a 10-hour rest rule, and Delta has made an announcement, as well. Any concerns that—not so much that the market is getting ahead of the FAA, but that the FAA is behind the market?

And in that, will the FAA be able to develop a 10-hour rest rule that conforms to what your members and the airlines are actually negotiating?

Ms. NELSON. What we have negotiated is language that mirrors what was written in the law. So it is the exact same. There is no conflict there at all.

And I should also note that Horizon Air has agreed to implement this outside of contract negotiations, as well, but that there is a big difference between having negotiated contract language and having a regulation that the airlines must follow, and must follow through with, and expect that there will be enforcement from the FAA. There are many more higher penalties for violating that, as opposed to committing a contract violation.

So this—we have been able to determine that there is not a cost factor of note to this, that the implementation can take place in a matter of weeks—actually, is what we have been experiencing—and that all that the FAA needs to do, based on all of the data that we already have from the seven commissioned fatigue studies, and from the data that we have compiled here, is simply follow the direction of Congress to update the rule and force the airlines to implement the rest.

Mr. LARSEN. All right, thank you. I recognize Mr. Fitzpatrick for 5 minutes.

Mr. FITZPATRICK. Thank you, Mr. Chairman. Thank you to all the panelists for being here. I want to start with Ms. Nelson.

First off, Ms. Nelson, thank you for your passion in fighting for the health, safety, and equality of the people you represent. You are doing a great job. And I can say that firsthand.

You had mentioned the recent GAO study that identified ongoing problems facing passenger service agents. What steps do you believe that need to be taken, both us on the committee, and those implementing it, in light of that report?

Ms. NELSON. The GAO study confirms what we already know, that customer service agents experience verbal and physical harassment regularly. And so what needs to happen is that most airlines have not complied with what is in the act, and that is to develop assault incident protocol where they have a clear process for handling assault when it happens, training for those customer service agents, and signage that makes it clear to the public what the penalties are if they conduct in this kind of behavior.

Now, I will tell you from firsthand experience that I came around the corner on an evening in an airport where there were severe storms and flights were being canceled everywhere. Because staffing has been reduced both on the plane and at the gates to the lowest level, there was one customer service agent handling reporting that a flight was going to be canceled that night. And there was a family of five that were going on their vacation, who were there to scratch up her arm so badly that blood was dripping from her arms by the time I got there. There was no other airline personnel there to see it. There was no law enforcement to respond. And she was in shock coming around the corner, having been by herself.

If we are going to take this seriously, then the airlines need to take this seriously with the protocol that they are required to submit to the FAA. The FAA needs to engage and enforce this portion of the act. And we need to be very clear in aviation, from the highest levels of leadership down to the signage at our airports, that assault of a customer service agent is a felony, people will be held accountable, we bring a coordinated roundtable with law enforcement at the airports, and we all understand what the protocol is to respond. That is the only way that we are going to stop what is happening. And it is an epidemic in our airports.

And, as flight attendants, we want this to be addressed, because we do not need these passengers who are already expressing incredible aggressive behavior to slip through the cracks and get onto our planes. This is a very serious issue, and it needs to be taken more seriously.

Mr. FITZPATRICK. Thank you, Ms. Nelson.

Captain Fox, you are a subject matter expert in an area that you heard me question Mr. Elwell about: secondary barriers. Thank you for your advocacy for that.

And, Ms. Nelson, perhaps you can opine on this, as well. Give us your perspective, representing the airline pilots and the flight attendants, on the, as of now, failure to implement what we passed in the FAA reauthorization. And that is only on new aircraft. As

you know, we are fighting for retrofitting, as well. If you could, just share your thoughts on that, sir. I appreciate it.

Mr. FOX. So thank you for the oversight and pressure from this committee. Because, clearly, from my standpoint of view, it is going to be required to get this law mandated, out there, and implemented.

It is our opinion that forming this advisory committee working group right now, the FAA's looking at secondary barriers, is a waste of resources that they have. This work was done by a Federal advisory group, RTCA, back in 2008, and they produced the document that is the performance standard to implement this secondary barrier from 50 seats up to the 787.

And when the Assistant Administrator addressed that it—also the flight attendant piece was in there, the flight attendant piece was in there, but it was in there for an interim period of time, until the secondary barrier was put in place.

They have the costing data, they know how to certify to put it in the airplanes. It needs to be done right now. They can issue tomorrow an interim final rule, an IFR. They can issue an interim final rule tomorrow to implement this law and take comments. And that is what I think should happen.

Mr. FITZPATRICK. What do you suspect the reason is for the delay?

Mr. FOX. There is—it is pure and simple. The reason, in our opinion, is there are special interests, the ones that have been fighting us all along to do what is right, are out there right now fighting again. And to me, it is a disrespect the Congress that passed that law.

Ms. NELSON. It is a disrespect to Ellen Saracini, who is in the room today, and to my friends who were on flight 175 with her husband, Captain Victor Saracini. Eighteen years later, this is too long.

The flight attendants who were standing there, using their own bodies as a guard against the flight deck, thought that they were doing that for an interim period of time. And we need these secondary barriers. They were on planes. There were decisions that were made by some of the airlines to remove them from preinstalled secondary barriers that were on new aircraft that were designed. And they did that for cost reasons.

Aviation safety and security is written in blood, and 18 years is long enough. We need to get this done, and I appreciate your leadership and your passion on this issue to make sure that it happens.

Mr. FITZPATRICK. Thank you. And I ask my committee members and colleagues to really take note of this.

Thank you, Mr. Chairman. I yield back.

Mr. LARSEN. Thank you. I am going to turn to Representative García from Illinois.

Mr. GARCÍA. Thank you.

Mr. LARSEN. Five minutes.

Mr. GARCÍA. Thank you, Mr. Chairman. And thank all the panelists for their testimony.

So I represent a lot of hard-working, working-class people in my district, folks who work day and night to make ends meet.

When I learned about the long hours, often uncompensated, that flight attendants endure, I was really surprised. People think it is kind of a glamorous job still.

Even more so, to find out that the meager changes made to flight attendants' adequate rest has been delayed—can you, Ms. Nelson, provide me with any additional comments about the strains that this puts on individuals, your families, staff morale, and performance?

And separately, what impacts this may have on safety of the flying public?

Ms. NELSON. Thank you very much for the question. Flight attendants are aviation's first responders, and they must be prepared to respond immediately. They switch back and forth between being safety professionals and serving with incredible emotional intelligence to be able to handle all of the people onboard.

Oftentimes we have to de-escalate conflict, and when we don't get enough rest it is much harder to do that. It is much harder to respond to any safety issue. I have another report from a flight attendant who said that she was so fatigued from a short night that she forgot to do the safety demo on the plane.

So these—oftentimes the flight attendants who are experiencing these short nights and long days are typically the more junior flight attendants. You brought up the issue of pay. These are people who are having to work long hours, not make enough money, and one of the issues of fatigue is also not getting enough nutrition. Oftentimes they don't have enough money to eat. These are the same people who are not getting enough rest to avoid fatigue and perform the very serious safety and security functions that they must perform.

I mentioned earlier responding to a medical emergency. We are also trained that a medical emergency could be a diversion for a much more serious security attack. And we have to remain vigilant to all of these issues onboard, in addition to managing all the different personalities onboard that sometimes don't always get along.

So this is a very serious stress. It happens every single day. And we continue to receive reports from flight attendants who are under great strain in their own personal health, and in their ability to perform their safety duties and respond in an evacuation. And also in their home lives, because when they go home they are beat, and they often then have to take care of children or other responsibilities.

Mr. GARCÍA. Can you comment, Ms. Nelson, on the seat sizes and space between rows? The case that has been mentioned here at—American Airlines flight 383 at Chicago O'Hare is, I think, an occasion that raises much concern about this. Can you elaborate on efforts to put more passengers on planes, and how this may jeopardize safety?

Ms. NELSON. Yes, we are very much in support of the evacuation certification standards study. And, in fact, we think we need to move forward with addressing the very real conditions in the cabin today.

We suspect that the 90-second rule cannot be met with the current conditions on board if you were to conduct an actual evacuation certification, and in real time, with real people, who weren't

told ahead of time, or volunteered and come to the test with tennis shoes on, and a good breakfast in their belly, and being prepared to respond, because they know that is why they are there.

So we are very concerned about the shrinking seats, more and more people being packed on our planes closer and closer together, and no realistic assessment of today's passenger size, or the conditions in the cabin that include having personal electronic devices plugged in everywhere, people stuffing in their overhead baggage everywhere. These evacuation certification tests have never taken into consideration the bags that people are taking with them today. And so there is not a realistic assessment. And we believe that that is going to lead to a loss of life if we don't take action right now to correct it.

Mr. GARCÍA. Thank you. I yield my time, Chairman.

Mr. LARSEN. Thank you. I recognize Ranking Member Graves for 5 minutes.

Mr. GRAVES OF MISSOURI. Thank you, Mr. Chairman. My question is mainly—and this goes back to—it is to Mr. Baker.

From a pilot's perspective, I guess you might say, what can we do, or what should we be focusing on when it comes to our medium and smaller airports, to make sure they are viable, to make sure that they are part of an aviation system, that aviation system throughout the country, that, you know, we just want to make sure that they continue to function? Because without those, then, obviously, we crowd up the larger airports. We want to make sure that that is maintained.

But from your perspective, what do we need to be focusing on? What do we need to be doing to do a better job when it comes to smaller airports?

Mr. BAKER. Thank you, Congressman Graves, for that question. Yes, these 5,000 public-use airports, which—airlines use around 500, the other ones are, as you know, small, rural, and serve the outer rings of the cities, if you will—are very important to this infrastructure system.

It was well intended by this Congress to have money set aside, AIP funds, for these airports. And, unfortunately, there is a match caused out there that some cities, some communities are stressed, cannot afford to match those things. We get to roll over a $150,000 for a couple of years. And too often that money goes unspent—well intended by this Congress to have those investments.

But I think we have to really look at—are there ways to help these communities invest in this incredible infrastructure that we have uniquely in this country, everything from paramedic relief, to agriculture, to business, to community access. These are important investments. We have got to figure out how you help that match come down. Some of these key airports, as you well know, there are 3,000 of them that have that entitlement opportunity.

Mr. GRAVES OF MISSOURI. I am going to pivot a little bit now, too, when it comes to GA and ADS–B, and requirements for that. And we still got a lot of GA aircraft out there that aren't equipped, and we got a deadline that is coming up very, very quickly. And are you concerned about that?

Do you think that people are just waiting to see what happens with the price, because it is expensive?

There are a couple options out there, but it is extraordinarily expensive to equip. What are your thoughts?

Mr. BAKER. Well, you know, the ADS–B equipment mandate, which starts January of this year, is very concerning. We have about 87,000 aircraft that probably will be equipped at that point time, leaving about 70-some-thousand aircraft that use that airspace that are close to the cities or above 10,000 feet that won't be equipped as of January 1, most likely.

The cost of equipment has come down. But, as we all know here, the average age of an aircraft today is 45 years old. You got a quartile that are less than $40,000 in total value. And this equipment was running between $2,000 and $6,000 to put on these airplanes.

General aviation owners have spent over $1½ billion so far to participate in this mandate. FAA had a $500 rebate program in place. It expired. It was very helpful for a lot of these owners that are doing this for the betterment of the system, for traffic. They don't have to do this. They want to do this. We are encouraging them to do it. But I would really encourage that $500 rebate be reenacted.

Mr. GRAVES OF MISSOURI. I yield back.

Mr. LARSEN. OK, I recognize Representative Norton for 5 minutes.

Ms. NORTON. Thank you very much, Mr. Chairman. It was important to hear from this panel.

I represent a region which has two major airlines. My question, I suppose, is for Mr.—am I pronouncing this right—Breyault?

Mr. Breyault, I have a special interest in your testimony about family seating. And that is not only, as you indicated, for convenience. A Republican not on this subcommittee, but a Republican cosponsor and I, Rick Crawford, have sponsored a bill. We call it the AWARE Act, that mandates that the FBI look at sexual assaults on airlines, on cruise ships, other forms of transportation, and disaggregate that information so we know where these assaults—apparently, there is some information that—but not disaggregated, so we know what we are talking about.

This bill, my bill, would go before the Judiciary Committee, its Subcommittee on Crime, Terrorism, and Homeland Security. I have a special interest because I was a former chair of the U.S. Equal Employment Opportunity Commission, which wrote the first guidelines on sexual harassment and assault. And those guidelines probably don't even apply. And—well, they may, but I am not even sure how they apply in the context of transportation.

And I note that in your testimony, Mr. Breyault, on page 5, you say that section 2309—that is apparently of our 2016 FAA reauthorization bill—mandated—and here I am quoting—"that within a year after enactment, the DOT review and 'if appropriate' create rules requiring airlines to seat children aged 13 or under next to an accompanying family member." This would seem to be much more urgent, given what we now know about sexual assaults on airlines, and I think your testimony that even children had been sexually assaulted.

Do you have any information whatsoever on whether the airlines have been approached? I mean that is 2 years. That is 3 years ago, when we mandated that these rules be created.

Mr. BREYAULT. Congresswoman, thank you for the question.

As I mentioned in my oral statement, my colleagues at Consumer Reports magazine recently released records of their interactions with the Department of Transportation over just this issue. And from what I understand, the DOT looked at the mandate in the bill, which also includes, I believe, some "as appropriate" message, as a—basically, a legislative loophole, from our opinion. They looked at the number of complaints that they were receiving about family seating, and decided that what they wanted to do would be to create a consumer education website about family seating.

Based on what we have been able to tell, to see, there has been very little substantive research in terms of talking to family advocates, psychologists, much beyond looking at how many complaints they have gotten, and making a determination that the percentage of——

Ms. NORTON. Of course, this mandated a rule.

Mr. BREYAULT. I am sorry?

Ms. NORTON. You indicated in your testimony their website.

Mr. BREYAULT. Yes.

Ms. NORTON. Have they indicated anything about the mandate from this committee for a rule?

Mr. BREYAULT. I understand that what they have done is create a website. And I believe that that is how they believe they have successfully applied the rule, applied the mandate that Congress has given them.

Ms. NORTON. Mr. Chairman, could I ask that the committee write to the Department of Transportation? This is 3 years ago we mandated a rule. The testimony here is they have created a website. We have had testimony here of sexual assaults on airplanes. Now, that is bad enough for anybody. But involving children, it does seem to me that the committee should be in touch not only about the tardiness, but about the effect of this tardiness on children and other passengers on airlines. And I ask that a—that—whether in a letter or however the chairman suits, that we reach the airlines to get a prompt answer.

Mr. LARSEN. Yes, I will make a note of that, and I will have staff follow up with you, so we can get the appropriate communication out.

Ms. NORTON. Thank you very much, Mr. Chairman.

Mr. LARSEN. Thank you.

A final question, Mr. Walden. In your written testimony you mentioned the importance of risk-based decisionmaking when it comes to UAS integration. You go on to state that you are concerned that the FAA may be approaching risk in an overly conservative way. Could you elaborate on that?

Mr. WALDEN. Thank you for your question. In the proposed rule to allow operations over people, the FAA adopts a risk model that assumes a drone has hit a person. And whether the drone would be able to fly over people depends on the severity of that impact.

That is not the test in manned aviation, where you look at the probability of failure, the probability of impact, and then the severity of the injury. That is the holistic risk model that has been recommended by peer-reviewed groups, recommended by the Centers

of Excellence ASSURE, and we are hoping that the FAA will reconsider that proposed rule.

It will—it wants to time that proposed rule with the remote ID final rule. And so there is time for the FAA to adopt a risk model that is the one that is consistent with manned aviation.

Mr. LARSEN. OK, thanks. Thank you.

Before I close I want to just make a note of how much overlap there was between the questions the Members asked of the FAA and the DOT and the issues that you, yourselves, have brought up. So it seems that, at least at this point, we seem to be on track with the stakeholders with regards to pressing the FAA on the right things. And we will continue to try to do that.

The testimony provided has been a good direction to the full committee, as well, certainly, to the subcommittee.

I know it is late, I know I haven't had lunch, and I am sure some of you want to have lunch, as well. So, with that, we have a lot of work left to do, and I really appreciate this panel's efforts.

And I ask unanimous consent, as well, today 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 unanimous consent—any objections?

OK, and 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 I don't have anything to add, the subcommittee now stands adjourned.

[Whereupon, at 1:38 p.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

Prepared Statement of Hon. Eddie Bernice Johnson, a Representative in Congress from the State of Texas

Thank you, Mr. Chairman.

It is with great appreciation that I thank the Chairman for holding this hearing today, as it allows us to hear, for the first time, from a senior Trump Administration appointee at the Department of Transportation (DOT), regarding aviation consumer protection concerns and explain what DOT has done to improve the consumer experience, as mandated by the FAA Reauthorization Act of 2018.

The United States maintains the world's safest and most complex aviation system in the world. Maintaining safety of our national airspace is paramount.

Dallas is home to Dallas-Fort Worth International Airport, the fourth busiest airport in the United States and the eleventh busiest airport in the world. As an aviation hub, consumer protection and customer experience are very important.

Members of Congress fly back and forth from their districts to Washington, DC frequently. During my trips, I have witnessed the frustration of passengers being bumped off of over-booked flights or when flights are cancelled, leaving them stranded and unable to complete their trip as planned.

To address these concerns, the FAA Reauthorization Act of 2018 included many consumer protections that DOT was mandated to implement. Even though the statute became law about a year ago, it appears that DOT has implemented very few of the provisions involving consumer protections. For instance, it was only last week that DOT established the Air Ambulance and Patient Billing Advisory Committee, missing the statutory deadline of December 2018. This advisory committee was established only after this Committee had notified DOT of today's hearing.

Passenger violations of consumer protections are reported by news outlets almost weekly. It is disappointing that DOT has not made implementing the 2018 statute's consumer protection mandates a priority.

I look forward to hearing the testimony from the Administration witnesses explaining why the consumer protection mandates have not been implemented.

I am also eager to hear from the second panel of stakeholders on how DOT's and FAA's delay in implementing the mandates Congress passed a year ago have impacted them.

Thank you. I yield back.

Letter of September 23, 2019, from Consumer Reports, Submitted for the Record by Hon. Rick Larsen

SEPTEMBER 23, 2019.

Hon. PETER A. DEFAZIO, Chairman,
Hon. SAM GRAVES, Ranking Member,
Committee on Transportation and Infrastructure.

Hon. RICK LARSEN, Chairman,
Hon. GARRET GRAVES, Ranking Member,
Subcommittee on Aviation, U.S. House of Representatives, Washington, DC.

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

Consumer Reports[1] is writing to inform the Committee of our continuing serious concerns about the U.S. Department of Transportation's failure to protect young children from being separated from their family members on commercial airline flights.

Under Section 2309 of the FAA Extension, Safety, and Security Act of 2016, DOT was instructed to:

> review and. if appropriate, establish a policy directing all air carriers providing scheduled passenger interstate or intrastate air transportation to establish policies that enable a child, who is age 13 or under on the date an applicable flight is scheduled to occur, to be seated in a seat adjacent to the seat of an accompanying family member over the age of 13, to the maximum extent practicable and at no additional cost, except when assignment to an adjacent seat would require an upgrade to another cabin class.

Three years after enactment of this directive, DOT has taken virtually no action to address this serious problem.

Family seating is a compelling matter of child safety and security. As the Federal Bureau of Investigation noted in its April 2018 report "Sexual Assault Aboard Aircraft," these assaults are increasing, and the victims have included children at least as young as 8 years old.[2] And it is understandably a concern to families who learn, often after they buy tickets, that their children may not be able to sit with them on the flight.

Due to the long silence from DOT, in September 2018, Consumer Reports filed a Freedom of Information Act request to determine what actions the Department had taken to comply with the directive. After almost an additional year, during which we made repeated inquiries, we finally received a reply on August 27.[3] The reply reveals that the Department contacted major airlines over a several-week period in late 2017, to inquire about their family seating policies and the complaints received, but did little more than that.

Unfortunately, the internal DOT summaries and discussion of those conversations were redacted. But the reply, which includes summaries of more than a hundred consumer complaints, demonstrates that consumers have serious concerns about airline family seating practices.

Of the 136 complaints provided to CR for events occurring between March 2016 and November 2018, 82 were filed against the domestic "Big Three" carriers American Airlines, Delta Air Lines, and United Airlines, along with their regional and codeshare partners. These complaints detail a pattern of insensitivity by the airlines against hundreds of families with young children.

- It is clear from these complaints that when families with young children seek to sit together inflight, airlines regularly impose or attempt to impose fees for "preferred" seat assignments and/or priority boarding, the very issues that Congress directed DOT to stop. Several complaining parents made clear that they did not understand that purchasing a Basic Economy class ticket would prevent them from being able to sit with their children.
- Numerous complaints involve airlines knowingly assigning seats apart from family to children as young as *2 years old*.
- Parents cite the emotional trauma of children sitting alone, including children who are autistic or who suffer seizures. In multiple cases, parents complain they were worried that young children sitting away from them were vulnerable to sexual assaults; others noted that young children sitting alone are particularly vulnerable during life-threatening emergencies.
- Families with children under the age of 5 report being forced to beg other passengers to switch seats, what one parent called "relying on the kindness of others." In numerous cases families were asked to deplane because of the inconvenience this caused, while others ultimately decided they had to deplane because of their concerns for their children.

---

[1] Consumer Reports is the world's largest independent product-testing organization. It conducts its advocacy work in the areas of privacy, telecommunications, financial services, food and product safety, health care, among other areas. Using its dozens of labs, auto test center, and survey research department, the nonprofit organization rates thousands of products and services annually. Founded in 1936, Consumer Reports has over 6 million members and publishes its magazine, website, and other publications.

[2] Federal Bureau of lnvestigation, "Sexual Assault Aboard Aircraft," April 26, 2018 (https://www.fbi.gov/news/stories/raising-awareness-about-sexual-assault-aboard-aircraft-042618). In FY 2017, 63 cases were reported to the FBI, up from 38 in 2014. According to an FBI airport liaison: "It's safe to say that many incidents occur that are not reported."

[3] Available at https://advocacy.consumerreports.org/research/department-of-transportation-reply-to-cr-freedom-of-information-request-on-family-seating/

- In several cases, parents complained that children over the age of 2 were forced to fly as "lap children," in clear violation of Federal Aviation Regulation 14 CFR § 135.128.
- Numerous complaints detail a family having lost reservations with seats together due to cancelled flights, aircraft equipment changes, and airline information technology failures. In the most egregious cases, families who had to rebook their flight to ensure they were seated together were forced to pay exorbitantly higher fares, in one case totaling $4,341 more, and in another case totaling $14,084 more.

The Department has provided two explanations for its failure to take action. Last week, DOT issued a public statement and updated the Department's website page. The "DOT's Review of U.S. Airline Family Seating Policies" states: "Based on the low number of complaints received and review of airline family seating policies, the Department determined it was unnecessary to direct airlines to establish policies on family seating."[4] Instead, as it tells families who manage to find the information on its website, DOT is leaving the burden on the families to check and comply with whatever the airline's policies and restrictions might be.[5]

This is a flawed basis for inaction. Failure to implement this Congressional mandate based on the number of complaints received about family seating problems disregards the physical and emotional vulnerability of young children traveling apart from their caregivers.

Previously, when we raised the family seating issue at a meeting between DOT officials and consumer advocates in August 2019, a DOT official stated that the Department wanted to ensure that any regulation regarding family seating "doesn't impose undue burdens" on the airlines. That is likewise not an acceptable basis for ignoring this problem.

The DOT web page claims that the Department "recognizes the importance that families place on sitting together when flying."[6] It is clear from the Department's inaction, and the fact that families continue to submit complaints about being separated from their small children, that DOT does *not* recognize the importance of this problem.

We hope you will agree that the response of the Department of Transportation—to do nothing, after three years of silence—is unacceptable. And we urge the Subcommittee to use time at the oversight hearing this week to demand that the Department do more to protect children and to ensure that small children are able to sit together with their families on flights—at no extra cost, and without having to beg their fellow passengers to switch seats with them.

Thank you for your attention to our concerns. We request that this letter be made part of the hearing record.

Respectfully,

WILLIAM J. MCGEE,
Aviation and Travel Adviser, Consumer Reports.
GEORGE P. SLOVER,
Senior Policy Counsel, Consumer Reports.
ANNA LAITIN,
Director, Financial Services, Consumer Reports.

cc: Members, Committee on Transportation and Infrastructure

---

[4] U.S. Department of Transportation, "DOT's Review of U.S. Airline Family Seating Policies," updated September 27, 2019 (www.transportation.gov/individuals/aviation-consumer-protection/review-us-airline-family-seating-policies).

[5] U.S. Department of Transportation, Aviation Consumer Protection (https://www.transportation.gov/individuals/aviation-consumer-protection/family-seating.

[6] *Id.*

Letter of July 3, 2019, to Hon. Elaine Chao, Secretary of Transportation, Submitted for the Record by Hon. André Carson

JULY 3, 2019.

Hon. ELAINE CHAO,
Secretary of Transportation,
U.S. Department of Transportation, 1200 New Jersey Ave, SE, Washington, DC.

DEAR SECRETARY CHAO:

We are writing to clarify the legislative intent for a provision in the FAA Reauthorization (P.L. 115–254), which requires the installation of secondary cockpit barriers on all new passenger aircraft. It has come to our attention that certain parties are seeking to undermine the clear statutory meaning of the provision or otherwise delay the law's implementation. The provision (Section 336, the Saracini Aviation Safety Act of 2018) specifically requires the "installation of a secondary cockpit barrier on each new aircraft that is manufactured for delivery to a passenger air carrier in the United States operating under the provisions of part 121 of title 14, Code of Federal Regulations." Congress drafted this language with the clear intent to apply secondary barriers to all new manufactured aircraft; therefore, any attempt by the FAA to reinterpret the provision more narrowly or to further study these well-understood security barriers would substantially delay implementation and evade incontrovertible Congressional intent.

What is so profoundly troubling is the assertion made by opponents of the provision claiming that the statute was intended to apply only to new "models" of aircraft that require a new type certificate. This was not our intent. If this had been our original intent, the language would have specifically mentioned new type certificated aircraft. Requiring the application of secondary barriers for only new type certificates is a vastly different standard than the new aircraft requirement that was agreed to on a bipartisan basis in both the House and Senate. A "new type" standard would only cover aircraft that are *not currently in production* and for which a "proposed change in design, power, thrust, or weight is so extensive that substantially complete investigation of compliance with the applicable regulations is required."[1] Orders requiring new type certificates are quite rare; in fact, a 2015 ICF International report finds it is "unlikely a new type design will seek certification in the next 10 to 15 years." Even in the event an order is placed on a new type design, it takes on average 8–10 years to develop such an aircraft. Effectively, this new type standard would delay application of this post-9/11 security requirement for decades. This is the reason our language is specific to exclude any mention of new type certificates and instead deliberately chose secondary barriers to apply to all newly manufactured aircraft off the production line after the specified date in the provision. On this point, the provision's language could not be more clear.

The legislative history from each chamber of Congress is unambiguous on this matter. The language in the Senate bill base text and the language that was added to the House bill by amendment during full committee markup both clearly require the installation of secondary barriers on all newly manufactured aircraft delivered to part 121 passenger air carriers. There had never been any deviation to consider new type certificate aircraft at any time during the bill's consideration.

Similarly, opponents are also suggesting that secondary barriers need further study, require the establishment of an aviation rulemaking committee, or that manufacturers should be allowed an alternative means of complying with the legal mandate. The design of secondary barriers is well established, studied, have been installed on part 121 carriers dating back more than a decade, and their installation is required by the law. In 2011, RTCA Inc.—a private sector firm that works with the FAA—completed a comprehensive study at the request of industry stakeholders on secondary barriers to provide manufacturers and carriers with an acceptable means of understanding and complying with regulations on secondary barriers. Therefore, attempts to exhaust more resources or time studying these barriers can only be interpreted as a diversionary delay tactic; and any effort to find another means of complying violates the clear terms of the statute to install these barriers by October 2019.

Safety and security are our foremost priorities and secondary cockpit barriers address known weaknesses and risks that will help keep passengers, flight crew, and the American public safe. An FAA official testified before the Transportation and Infrastructure Committee that some types of barriers have already been approved for use. Our intent is to have secondary cockpit barriers adopted as soon as possible as required by P.L. 115–254.

[1] 14 CFR 21.19

We appreciate your time and look forward to working with you to implement the provision as intended by Congress.

Sincerely,

André Carson, Member of Congress; Brian K. Fitzpatrick, Member of Congress; Jerrold Nadler, Member of Congress; Peter T. King, Member of Congress; Josh Gottheimer, Member of Congress; Donald M. Payne, Jr., Member of Congress; Alan Lowenthal, Member of Congress; Raja Krishnamoorthi, Member of Congress; Thomas R. Suozzi, Member of Congress; Val Butler Demings, Member of Congress; Ann M. Kuster, Member of Congress; James P. McGovern, Member of Congress; Tom Malinowski, Member of Congress; Xochitl Torres Small, Member of Congress; Cedric L. Richmond, Member of Congress; Kathleen M. Rice, Member of Congress; Elaine Luria, Member of Congress; Paul Cook, Member of Congress; J. Luis Correa, Member of Congress; Earl Blumenauer, Member of Congress; Katie Porter, Member of Congress; Kim Schrier, Member of Congress; James A. Himes, Member of Congress; Derek Kilmer, Member of Congress; Tulsi Gabbard, Member of Congress; Raúl M. Grijalva, Member of Congress; Frank Pallone, Jr., Member of Congress; Diana DeGette, Member of Congress; Tom Cole, Member of Congress; Gus Bilirakis, Member of Congress; Ben Ray Luján, Member of Congress; Sean Patrick Maloney, Member of Congress; Bill Johnson, Member of Congress; Henry C. "Hank" Johnson, Jr., Member of Congress; Paul Tonko, Member of Congress; Brian Higgins, Member of Congress; David B, McKinley, P.E., Member of Congress; Pete Aguilar, Member of Congress; Vicente Gonzalez, Member of Congress; Debbie Dingell, Member of Congress; Abby Finkenauer, Member of Congress; John Curtis, Member of Congress; Ross Spano, Member of Congress; Filemon Vela, Member of Congress; Chris Pappas, Member of Congress; Cynthia Axne, Member of Congress; Glenn "GT" Thompson, Member of Congress; Eric Swalwell, Member of Congress; Jamie Raskin, Member of Congress; Jack Bergman, Member of Congress; Mark DeSaulnier, Member of Congress; Susie Lee, Member of Congress; Jesús G. "Chuy" García, Member of Congress; Don Bacon, Member of Congress; Matt Cartwright, Member of Congress; Donald S. Beyer, Member of Congress; Katie Hill, Member of Congress; Ruben Gallego, Member of Congress; Ed Perlmutter, Member of Congress; Joe Neguse, Member of Congress; Mark Pocan, Member of Congress; Salud Carbajal, Member of Congress; Pramila Jayapal, Member of Congress; Angie Craig, Member of Congress; Jared Huffman, Member of Congress; Max Rose, Member of Congress; Elissa Slotkin, Member of Congress; Sharice L. Davids, Member of Congress; Grace F. Napolitano, Member of Congress; Adriano Espaillat, Member of Congress; Michael F.Q. San Nicolas, Member of Congress; Jim Costa, Member of Congress; Steve Cohen, Member of Congress; David Price, Member of Congress; Eleanor Holmes Norton, Member of Congress; Fred Upton, Member of Congress; Bobby L. Rush, Member of Congress; Grace Meng, Member of Congress; Julia Brownley, Member of Congress; Adam Smith, Member of Congress; Albio Sires, Member of Congress; Harley Rouda, Member of Congress; Peter Visclosky, Member of Congress; Suzan K. DelBene, Member of Congress; Joe Courtney, Member of Congress; Scott Peters, Member of Congress; Daniel W. Lipinski, Member of Congress; Janice Schakowsky, Member of Congress; John Garamendi, Member of Congress; Bill Pascrell, Jr., Member of Congress; Gregorio Kilili Camacho Sablan, Member of Congress; Eliot Engel, Member of Congress; Tony Cárdenas, Member of Congress; Bonnie Watson Coleman, Member of Congress; Ed Case, Member of Congress; Norma J. Torres, Member of Congress; Bob Gibbs, Member of Congress; Dina Titus, Member of Congress; Kurt Schrader, Member of Congress; Jackie Speier, Member of Congress; Frederica S. Wilson, Member of Congress; William R. Keating, Member of Congress; Gilbert Ray Cisneros, Jr., Member of Congress; Linda T. Sánchez, Member of Congress; Debbie Mucarsel-Powell, Member of Congress; Brendan F. Boyle, Member of Congress; Mark Meadows, Member of Congress; Lee Zeldin, Member of Congress; Seth Moulton, Member of Congress; Kevin Brady, Member of Congress.

APPENDIX

QUESTIONS FROM HON. ALBIO SIRES TO DANIEL K. ELWELL, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Question 1. Given the prevalence of food allergy among children and Congress' mandate to the Federal Aviation Administration (FAA) to take the needs of children into account when evaluating the appropriate contents of medical kits on planes, can you please update me on the status of FAA's evaluation of emergency medical kits?

ANSWER. In response to Section 307 of the FAA Reauthorization Act of 2018 (2018 Act), the FAA received information from the Aerospace Medical Association (AsMA), which conducted a study of the required Emergency Medical Kit contents on commercial aircraft. To conduct the study, AsMA utilized their Air Transport Medicine Committee composed of Aerospace Medicine experts from the U.S. and internationally. This Committee also collaborated with the American Academy of Pediatrics related to specific pediatric contents. We received their report in June 2019.

Our subject experts in the Office of Aerospace Medicine completed their review of the AsMA report in late August. The agency is currently considering issuing a notice to part 121 air carriers to inform them of the study and remind them that no regulation prohibits them from voluntarily carrying additional medications in their aircraft emergency medical kits at their discretion. The agency remains committed to continuing its review of the study as well as other information the agency might receive. The agency does not rule out other activities in response to the results of the study or receipt of other relevant information.

Question 2. Can you please assure me that countermeasures for food allergy and anaphylaxis are being addressed in terms of the evaluation, with a focus on the needs of children?

ANSWER. Yes. The FAA is taking the needs of children into account under our review of aircraft medical kit contents in accordance with Section 307(b) of the 2018 Act. Our review includes consideration of medications for the treatment of food allergies and anaphylaxis.

Question 3. If the evaluation is not yet complete, can you confirm that the FAA is taking under consideration new products including those that allow for infants and toddlers to be protected?

ANSWER. Yes, as noted above, the FAA is taking the needs of children into account under our review of aircraft medical kit contents in accordance with Section 307(b) of the 2018 Act.

QUESTIONS FROM HON. SAM GRAVES TO DANIEL K. ELWELL, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Question 1. In your written testimony you explain that for a variety of reasons FAA has prioritized its Reauthorization implementation strategy. Can you describe what the strategy is and how you prioritized the many mandates in the Reauthorization Law?

ANSWER. Safety is the Federal Aviation Administration's (FAA's) first priority and the agency is working hard to implement the hundreds of specific deliverables in the 2018 Reauthorization Act (2018 Act or Act) while we simultaneously continue to carry out our mission and daily operations. It has also been our approach, generally, to work toward completion of the mandates in the order in which they are due. Although the 2018 Act reauthorized aviation programs for five years, the majority of the congressional mandates are due within the first year. To illustrate the magnitude of the FAA's first year requirements, consider the following approximate numbers. The 2018 Act requires the FAA to:

- complete 33 rulemakings—13 of which are due within one year;

- complete 79 reports to Congress—54 of which are due within the first year;
- conduct 21 studies or briefings—all of which are due within one year;
- complete 15 new advisory committee, working group or task force actions—10 of which are due within the first year;
- carry out 12 new programs or pilot programs—6 of which are due within the first year; and
- develop 51 plans/processes/performance metrics/databases or guidance—27 of which are due within the first year.

The FAA will continue to work as quickly as possible to address *all* of the congressional mandates required under the 2018 Act.

Question 2. Realistically, when will Remote ID for drones be in use in the National Airspace System?

ANSWER. The Notice of Proposed Rulemaking (NPRM) for the "Remote Identification of Unmanned Aircraft Systems" is currently in Executive Branch clearance. We anticipate the NPRM will be published soon. The FAA has been engaging with industry to help establish foundational elements that will facilitate future implementation of the rule. In December of 2018, we issued a Request for Information (RFI) to seek industry partners interested in becoming a UAS Service Supplier (USS) with the intent of establishing a practical approach to information and data sharing. This opportunity will support the FAA's ability to develop data exchange strategies between UAS and appropriate stakeholders. In June of 2019, we tasked the Drone Advisory Committee (DAC) with developing recommendations on voluntary equipage prior to the effective date of the rule. The DAC formally provided these recommendations on October 17, 2019. The recommendations are in FAA review for effectiveness, feasibility, and safety/security implications.

The recommendations of the DAC can be viewed here: https://www.faa.gov/uas/programs__partnerships/drone__advisory__committee/media/eBook__10-17-2019__DAC__Meeting.pdf

The FAA is planning an aggressive implementation schedule, and after the NPRM is published, the FAA will review the comments and determine impact to the schedule.

Question 3. FAA has issued a lot of AIP grants in the last few weeks. Can you talk about how these funds are benefitting aviation infrastructure and small airports?

ANSWER. In Fiscal Year 2019, The FAA issued grants for approximately $3.6 billion in AIP dollars. This includes $265 million in Supplemental Appropriations. In the last few weeks of this fiscal year, 439 grants and over $1.4 billion in funding were issued for various airport infrastructure improvements. These improvements include rehabilitation and construction of runways, taxiways, and apron pavements along with terminal building construction and improvements. Of the grants issued in September 2019, 45 percent of these grants funded airport improvements at small or general aviation airports. This infusion of capital for airport development i.e. maintenance and expansion of the airport facilities greatly enhances the local communities' ability to serve the flying public in their area where transportation connectivity is often critical.

Question 4. What are the "lessons-learned" so far from the President's Integration Pilot Program for unmanned aircraft systems or drones?

ANSWER. The work being done through the UAS Integration Pilot Program (IPP) is helping us understand what the future UAS Traffic Management System will need to look like. We are also learning more about the public's perception of UAS and the need for community engagement. While local communities are generally supportive of UAS operations related to emergency response, infrastructure inspection, and medical package delivery, there are still concerns about privacy, safety, and noise.

The IPP is also helping to establish the safety cases needed to conduct advanced UAS operations like Beyond Visual Line-of-Sight (BVLOS). In July 2019, the FAA issued the first BVLOS waiver that did not require visual observers (VOs). Subsequently, the FAA has approved additional BVLOS waivers that do not require VOs.

Through the IPP, Wing Aviation and UPS Flight Forward have received certification under 14 CFR part 119 to operate UAS flights as an air carrier under 14 CFR part 135 for compensation or hire. We've seen that air carriers that are already certificated for operations with manned aircraft are better positioned to be successful with certification for operations with UAS because these companies have experience with the certification process. Going forward, we are encouraging potential applicants for part 135 certification to consider working with certificated air carriers

and providing more resources to assist the applicants that are not familiar with the process.

Lastly, this effort is assisting the Department in the collection of data and proofs of concept that will better allow the Department to address the concerns of our security partners in future rulemakings and FAA actions.

Question 5. Deputy Administrator Elwell, as you know the Federal contract tower program is a great example of a successful public/private partnership, but it is also vitally important to small, rural, and general aviation airports. The Reauthorization law made a number of significant reforms to the way the FAA manages the program. Can you provide an update on the status of those reforms?

ANSWER. Key reforms to the Federal contract tower (FCT) program have been integrated into the FAA's processes and procedures for administering the program. The most notable reforms include processing benefit-cost (BC) ratios using the previously established method from 1990 (FAA–APO–90–7), and doing so within 90 days of receiving a complete application. The FAA has received nine applications from new applicants since the bill was enacted, and has been processing these applications as expeditiously as possible.

The revised law prohibits the FAA from conducting a BC analysis on FCT program participants unless air traffic at a participating facility has decreased by more than 25 percent in one year or more than 55 percent in the preceding three-year period. The FAA will reassess towers only if these criteria are met.

The Reauthorization language also provided that if an existing participant in the FCT program is operating under the cost-share program, the Secretary shall annually calculate a BC ratio with respect to the tower. The calculations for these cost-share towers are underway.

In addition, the FAA has eliminated the $2 million cumulative Airport Improvement Program (AIP) cap and provided guidance to FAA personnel regarding the availability of Small Airport Funds (a discretionary fund set aside under the AIP) for eligible contract tower projects. The FAA issued updated guidance on these changes in July 2019 and is working with potential recipients of these funds for any high-priority tower projects.

QUESTIONS FROM HON. GARRET GRAVES TO DANIEL K. ELWELL, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Question 6. The Committee is especially aware of concerns with the cybersecurity of both aircraft and air traffic control systems. We firmly believe that the FAA is and must remain the lead on these issues given its expertise and understanding of the technologies, security risks, and safety implications. Two questions:

a. The Reauthorization includes a number of mandates related to cybersecurity, including section 506, Securing aircraft avionics systems; section 509, Review of FAA strategic cybersecurity plan; and section 549, Study on cybersecurity workforce of FAA. What is the status of these mandates?

ANSWER:

Section 506. Securing aircraft avionics systems:

The Aviation Rulemaking Advisory Committee (ARAC) Aircraft Systems Information Security and Protection (ASISP) Working Group delivered a total of 30 recommendations to the FAA and industry pertaining to: rulemaking; policy and guidance; best practices; leveraging and/or updating of industry standards; continued operational safety; specific technologies, designee standards; and research and development. The strategy to address the recommendations is documented in the FAA's Office of Aviation Safety (AVS) ASISP Strategic Plan. The plan details initiatives designed to address security risks and the protection of critical aircraft systems, including avionics suites and associated networks. AVS has completed 17 recommendations and is tracking the completion of the remaining 13 recommendations on a monthly basis.

Section 509. Review of the FAA strategic cybersecurity plan:

The FAA completed its review and update to the Cybersecurity Strategy in September 2019. Overseen by the FAA Cybersecurity Steering Committee (CSC), the strategy articulates the Agency's strategy for protecting the FAA's information systems and critical infrastructure. It guides the development and execution of the FAA Cybersecurity Program and strengthens FAA's overall cybersecurity posture. More specifically, the plan identifies five goals that describe a strategic approach to cybersecurity for the FAA enterprise. The five goals are to:

- Refine and maintain a cybersecurity governance structure to enhance cross-domain synergy;

- Protect and defend FAA networks and systems to mitigate risks to FAA missions and service delivery;
- Enhance data-driven risk management decision capabilities;
- Build and maintain workforce capabilities for cybersecurity; and
- Build and maintain relationships with, and provide guidance to, external partners in government and industry to sustain and improve cybersecurity in the aviation ecosystem

Section 549. Study on cybersecurity workforce of the FAA:

In September 2019, the FAA awarded a contract to the National Academy of Sciences to initiate a cybersecurity workforce study. This study will be completed by the end of FY 2021 and will include: the FAA's cybersecurity workforce challenges; a review of the FAA's current strategy for meeting those challenges; and recommendations related to strengthening the FAA's cybersecurity workforce. Quarterly updates on the progress of the study will be provided to the FAA Cybersecurity Steering Committee.

b. Can you explain how the FAA interacts with other government agencies on cybersecurity issues and efforts?

ANSWER. The FAA continues to engage in cybersecurity information sharing with the Department of Homeland Security (DHS) National Cybersecurity & Communications Integration Center (NCCIC), United States Computer Emergency Readiness Team (US–CERT) and Industrial Control Systems Cyber Emergency Response Team (ICS–CERT). Our participation facilitates the exchange of critical cybersecurity information and creates situational awareness of malicious cyber activity.

The FAA validates, coordinates, and responds to requests for information from the National Security Council and the interagency community requiring FAA support. FAA identifies, assesses, and works to mitigate national security risks ranging from nation-state and non-nation state actors to transnational organizations' cyber intrusions and intelligence collection activity directed against the FAA.

As a tri-chair member of the Aviation Cybersecurity Initiative (ACI), an interagency partnership with DHS and Department of Defense (DoD), we work together to improve cybersecurity across the aviation ecosystem.

Question 7. Mr. Elwell, section 2209 of the FAA Extension, Safety, and Security Act of 2016 required the FAA to establish a process for operators of sensitive facilities, such as energy production and chemical facilities, restrict the operation of unmanned aircraft systems over or adjacent to their facilities. What is the status of the creation of this process, and what other steps is FAA taking to ensure that unmanned aircraft are not operated over or near sensitive facilities?

ANSWER. In order to implement section 2209 of the FAA Extension, Safety, and Security Act of 2016 (FESSA), the Department of Transportation's (DOT's) Office of the Secretary and the FAA determined that Notice and Comment rulemaking is required and initiated a regulatory action. DOT and FAA are currently working on the rulemaking required to implement section 2209.

In the interim, in order to begin meeting the intent of 2209, the FAA used existing authority to put restrictions over security sensitive sites identified by federal security agencies (such as military installations, sensitive energy facilities, and iconic landmarks like the Statue of Liberty, Hoover Dam, and Mount Rushmore), and recently expanded the sites to include federal prisons in urban settings using existing authority under 14 CFR § 99.7. As we proceed with the rulemaking work, the FAA continues to meet with critical infrastructure owners and associations to support incident response planning, law enforcement engagement, public education and community outreach.

Ultimately, though, we believe remote ID requirements and a robust unmanned aircraft system (UAS) traffic management (UTM) suite of services are going to resolve many of the challenges Congress anticipated with 2209 to address the concerns of critical infrastructure owners.

We have issued hundreds of flight restrictions and learned a lot that is helping to shape the rulemaking. This work is incredibly labor-intensive, and FAA is concerned that, once a 2209 process is implemented, we will be flooded with potentially tens of thousands of requests and will be challenged in taking a risk-based, efficient approach to assessing and responding to these requests. We hope to implement criteria that will help protect the highest-risk facilities that could impact national security and economic stability, as well as public safety, if damaged by a UAS incident, without impeding legal UAS operations.

Question 8. Mr. Elwell, the negligent or nefarious use of unmanned aircraft systems in a way that disrupts airport operations has become a major concern, especially after the high profile incident near Gatwick airport last December. However,

the use of counter-UAS systems in an airport environment poses a number of operational and safety challenges that need to be overcome, which is why Congress directed the FAA to carry out an Airspace Hazard Mitigation Pilot Program. What is the status of this pilot program and what barriers remain to the safe use of counter-UAS systems in an airport environment?

ANSWER. The FAA is in the planning stages of the Airspace Hazard Mitigation Pilot Program required under section 383 of FAA Reauthorization Act of 2018. The FAA will build upon previous work performed under section 2206 of FESSA, enacted in 2016, to inform testing and evaluation of UAS detection systems and mitigation systems, also known as counter unmanned aircraft systems (C–UAS). The FAA's evaluations, under 2206, were limited to only some types of detection since the Agency lacked relief from various provisions in title 18 and title 49, United States Code. The FAA is working closely with federal security partners to develop a program structure and plan to address the variety of detection and C–UAS test activities occurring across the interagency. Results will inform test activities at pilot airports.

As part of the tasking in section 383, the FAA will also initiate an Aviation Rulemaking Committee to gain industry input on necessary performance standards to support the safe and effective use of detection and mitigation systems in the NAS. The FAA expects this effort to be informed by the Airspace Hazard Mitigation Pilot Program mentioned above. Standards development is vital, among other things, to enabling potential use of Airport Improvement Program (AIP) funding for UAS detection and C–UAS system procurement. Even when standards are developed, however, airports cannot use certain detection equipment, nor can they use any C–UAS equipment since C–UAS authority is limited to certain federal agencies. The FAA is in the process of planning how best to incorporate industry input on standards development.

Results from the testing and evaluation and standards development activities will be used as input to the plan for certifying, permitting, authorizing, or allowing the deployment of C–UAS equipment to detect and mitigate UAS. Until the FAA completes the tasks in section 383, the Agency cannot identify all of the barriers that may remain to the safe and effective use of detection and C–UAS equipment in the airport environment. Right now, the two identified barriers are the safety impacts of some C–UAS systems on aviation safety and NAS efficiency and the barrier to airport procurement and use of some detection and any mitigation systems due to the fact that C–UAS authority is limited to certain federal agencies.

QUESTIONS FROM HON. DAVID ROUZER TO DANIEL K. ELWELL, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Question 9. It is my understanding that NCDOT is working with FAA under the IPP to develop a safety case to enable their partners to fly beyond visual line of sight in our state. Are there opportunities for FAA to share existing radar coverage feeds with the state to help deconflict drone operations with manned aircraft?

ANSWER. Currently, the FAA is providing limited flight data to Lead IPP Participants. Our efforts to fully integrate UAS operations into the NAS will include significant engagement with our federal agency partners to address their security concerns.

QUESTIONS FROM HON. MARK MEADOWS TO DANIEL K. ELWELL, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Question 10. Mr. Elwell, prior to the 2018 Reauthorization, the last long-term FAA Reauthorization was passed in 2012. Section 821 of that Act directed the FAA to allow fuel reimbursements for private pilots providing volunteer medical transportation. It is clear that Congress wanted the FAA to change its regulations to ease the burden on these volunteer pilots. Yet the FAA certified it complied with the law based on a pre-existing exemption process. Why did the FAA maintain the status quo when Congress clearly wanted a change?

ANSWER. The FAA has not been able to complete rulemaking on fuel reimbursement due to competing rulemaking priorities. However, we maintain that we can comply and are complying with the intent of the law. The FAA has worked to ensure this activity continues to be conducted safely through the exemption process. The exemptions we issue contain conditions and limitations on organizations, operations, pilots, and aircraft, and are targeted to raise the safety level of such flights. We systematically review and update these conditions and limitations to ensure these practical and beneficial operations continue to meet an equivalent level of safety.

QUESTIONS FROM HON. DON YOUNG TO DANIEL K. ELWELL, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Question 11. Recently there has been a lot of talk about infrastructure and infrastructure development projects that are needed around the country. I understand that Seattle-Tacoma International Airport has one such effort currently in environmental review with FAA—a multi-billion-dollar master plan to solve its capacity problems through the addition of new facilities on the ground—but that the restrictions on the surrounding airspace would remain. In a situation like this, what role does the FAA play in ensuring that as a country we are strategically building airport infrastructure and considering capacity issues both on the ground and in the air so that our facilities can be effectively utilized?

ANSWER. The FAA routinely monitors system performance in order to identify constrained airport infrastructure and/or airspace. We work with airports to advance needed airport infrastructure, such as additional gates and ramp areas in the case of Seattle-Tacoma International Airport (SEA). Airspace improvements are implemented by the FAA, preferably with support from the airport to assist with community involvement and noise concerns. Sometimes both airport infrastructure and airspace improvements are undertaken in tandem. This happens when there is a direct operational linkage; i.e., the airspace is needed to serve a new runway. An example of this is the ongoing improvements with the Chicago O'Hare Modernization Program. However, at other locations it can be advantageous to pursue projects separately if they have independent utility.

At SEA, the quantitative analysis shows that the most critical near term constraints are gate and ramp capacity. Later in the mid-term period, airspace constraints will be a growing concern in the Seattle area. However, additional gates have significant benefit at SEA in the near term even without airspace improvements. As a result, the FAA is supporting the Port of Seattle's efforts to develop new gates as soon as possible. However, the FAA does expect to work with the airport and airlines on airspace improvements in Seattle in the coming years as a separate project.

Overall, while implementation can vary depending on local details, the FAA recognizes our role in actively engaging with all stakeholders to continuously improve system capacity.

Question 12. I wanted to ask you about NextGen and investment in West Coast/Pacific. We need to make sure that as we keep NextGen technologies moving forward that we don't leave behind those in the West and Pacific. I know with the shutdown there was a delay in rolling out DataComm that is lasting months. As you know, DataComm allows a much more efficient "certified text messaging" between the controllers and pilots for more efficient reroutes in bad weather situations and in otherwise busy times. Can you update the committee on how the FAA is working to get that project back on track across the country—East and West?

ANSWER. The Government shutdown created significant impacts to the en route phase of the Data Comm program and required the FAA to replan the entire en route deployment schedule. In addition, issues experienced with aircraft avionics and with legacy air-to-ground networks over the last year of testing in the NAS have impacted operational acceptability in the field. Action plans have been put in place for industry (e.g., Boeing, Airbus; multiple avionics manufacturers; L3Harris, Collins and SITA; and the Operators) to address the aircraft/avionics issues. The NEXTGEN Advisory Committee has been actively engaged to assist in addressing these issues and progress is being made. To minimize the impacts to the deployment schedule, the FAA moved forward with several changes in the FAA's ground automation (ERAM) to mitigate issues with aircraft avionics. These software updates have been delivered ahead of schedule and are working as designed.

We are projecting that the first two key site Air Route Traffic Control Centers (ARTCCs)—Indianapolis (ZID) and Kansas City (ZKC) will be fully operational by the end of 2019, which will allow us to move forward with deployment to the rest of the ARTCCs—roughly deployed from the east to the west—in the 2020–2021 timeframe. These schedule changes represent an approximate five month slip to the baseline first-site date, and approximate seven month slip to the last site from the projected initial operating capability date.

This is a very complex system of systems acquisition currently being deployed into the NAS. As a reminder, the tower phase of the Data Comm program was delivered 2.5 years early and several million dollars under budget, and is delivering significant benefits in the NAS at the 62 airports across the country, including 12 airports in Washington, Oregon, and California, where the services are deployed.

Question 13. I'd also like to specifically inquire on tower and EnRoute DataComm services at Honolulu (HNL) and Anchorage (ANC) at this time. This technology increases accurate receipt of air traffic control messages and reduces the possibility of message transfer error when compared to the current methods available at HNL and ANC. There is a solid operational and benefits case for deploying at HNL and ANC, however, I understand some infrastructure and technical issues at these locations need to be addressed by the FAA. Can you please provide an update on the plan and timeline for this to occur at these key locations so we can start seeing these and other benefits to our air traffic control system in the Pacific?

ANSWER. We are currently evaluating alternatives for a replacement of our offshore automation platforms. We are planning an Initial Investment Decision in 2020, followed by a Final Investment Decision (FID) in 2021. The final deployment schedule will be determined at FID, but is estimated to begin in the 2024 timeframe. Our objective is to provide nationally supported National Air Space (NAS) standardized platforms at the offshore facilities (HNL, ANC, Guam and SJU) which will bring the four facilities into strategic alignment with the Continental United States NAS.

The benefits of this effort will allow for future Next Generation Air Traffic System (NextGen) capabilities and will ease future lifecycle sustainment challenges associated with the legacy systems, including reducing the number of automation platforms requiring separate maintenance and training support, and allow for greater workforce flexibility.

QUESTIONS FROM HON. GREG STANTON TO HON. JOEL SZABAT, ACTING UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

Question 1. Section 427 of the FAA Reauthorization Act requires the Department to issue a final rule to require large ticket agents—those whose revenue total more than $100 million—to adopt minimum customer service standards. The purpose of Section 427 is to ensure that, to the extent feasible, there is a consistent level of consumer protection regardless of where consumers purchase air fares.

Can you please provide me an update on the status of the Department's implementation of Section 427.

ANSWER. The Department has committed to moving forward with a rulemaking that would require ticket agents with annual revenues of $100,000,000 or more (large ticket agents) to adopt minimum customer service standards as mandated by Section 427 of FAA Reauthorization Act of 2018. The rulemaking, which is identified on the Spring 2019 Unified Agenda of Regulatory and Deregulatory Actions, would enhance airline passenger protections by requiring large ticket agents to adopt minimum customer service standards. A rulemaking schedule has not been established at this time.

Question 2. Sexual harassment is a significant and ongoing issue for flight attendants and passengers on commercial aircraft and it is important that the FAA prioritize efforts to combat and address it. Flight crews need to feel confident that their complaints are being taken seriously and that the appropriate penalties are being applied to deter this type of unacceptable behavior. Section 339A of the FAA Reauthorization Act requires the Secretary of Transportation to establish a task force to evaluate current practices in responding to and reporting allegations of sexual misconduct on aircraft and provide best practices.

Can you please provide me the work plan and timeframe for the task force's work on this important issue.

ANSWER. In February 2019, the Secretary established the National In-Flight Sexual Misconduct Task Force (Task Force) and announced its members. The Task Force met in April, May, June, July and September of 2019. During these meetings, the Task Force examined best practices relating to training, reporting, and data collection regarding incidents of sexual misconduct by passengers on board commercial aircraft. Task Force members also heard and reviewed first-hand accounts from passengers and flight attendants who experienced sexual misconduct. The Task Force expects to conclude its work in early 2020, at which time the Task Force will submit a report to the Aviation Consumer Protection Advisory Committee with recommendations relating to training, reporting, and data collection regarding incidents of sexual misconduct. At the same time, this report will be made public.

QUESTIONS FROM HON. SAM GRAVES TO HON. JOEL SZABAT, ACTING UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

Question 1. The Essential Air Service program ensures that rural towns and communities remain connected to our national air transportation system. The FAA bill included a provision allowing the Department to exempt communities from certain EAS service requirements if a community requests it. This is intended to ensure that DOT and communities have the flexibility they need to implement the program in the best manner possible for the community and the taxpayer. Can you give us a sense of how DOT is planning on implementing this provision? (Section 456)

ANSWER. The Department has implemented this provision and has already provided waivers for several communities that requested to waive part of basic EAS, 49 U.S.C. § 41733(a) & (b), or EAS termination notice requirements, 49 U.S.C. § 41734(a)–(c). Waivers were granted to Greenbrier/White Sulphur Springs, WV, Moab, UT, and West Yellowstone, MT to allow carriers to provide less than basic EAS (fewer than 12 round trips per week) during off-peak periods, while correspondingly operating more round trips during peak season. Greenbrier, Moab, and West Yellowstone are all seasonal markets, making this adjustment economical and practical. We are also working with a community on its request for a waiver for its air carrier from certain notice requirements under 49 U.S.C. § 41734.

Question 2. How does the DOT prioritize the many FAA Reauthorization mandates?

ANSWER. The FAA Reauthorization Act of 2018, which provided much needed stability and direction for the Department's work, contained 550 sections and approximately 360 deliverables. The Department is working to implement the provisions of the Act as expeditiously as possible, prioritizing those provisions that address aviation safety and the efficient use of the airspace. A review of the Department's August 2019 Significant Rulemaking Report reflects these priorities, as 70 percent of the Federal Aviation Administration (FAA)'s ongoing rulemaking work deals primarily with safety. Working with the FAA, other modal administrations within the Department, and other cabinet agencies as necessary, we are also implementing provisions addressing accessibility and consumer rights, infrastructure, and innovation. We also are placing a high priority on the integration of new technologies into the airspace that hold promise for improved safety, accessibility, and economic opportunity, such as Unmanned Aircraft Systems (UAS).

QUESTIONS FROM HON. GARRET GRAVES TO HON. JOEL SZABAT, ACTING UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

Question 1. How has the creation of the position of Aviation Consumer Advocate changed the work of the Department's Office of Aviation Enforcement and Proceedings?

ANSWER. The Aviation Consumer Advocate, a position created by the FAA Reauthorization Act of 2018 (the Act), is tasked with the following: (1) assisting consumers in resolving airline service complaints filed with the Department; (2) reviewing the Department's resolution of airline service complaints; (3) identifying and recommending actions the Department can take to improve the enforcement of aviation consumer protection rules and resolution of airline service complaints; (4) identifying and recommending regulations and policies that can be amended to resolve more effectively airline service complaints; and (5) submitting an annual report to Congress. Many of the specified functions of the Aviation Consumer Advocate overlap with the functions of the Department's Office of Aviation Enforcement and Proceedings. For this reason, the Assistant General Counsel (AGC) of the Office of Aviation Enforcement and Proceedings was selected to serve as the Aviation Consumer Advocate. Shortly thereafter, the AGC established two new positions within the Office of Aviation Enforcement and Proceedings—Director of Consumer Advocacy and Director of Civil Rights Advocacy—to help fulfill the responsibilities of the Aviation Consumer Advocate. The Directors serve as an extension of the Aviation Consumer Advocate and play a key role in educating and assisting consumers, resolving airline service complaints, and identifying actions to improve the resolution of airline service complaints. The creation of the Aviation Consumer Advocate position has resulted in more visibility and focus on the issues identified in the Act as being priorities for the Department.

Question 2. What will the Air Carrier Access Act Advisory Committee be working on and how will their efforts assist the Department in implementing the various mandates of the Reauthorization Law?

ANSWER. The Department's Designated Federal Officer for the Air Carrier Access Act (ACAA) Advisory Committee is working closely with ACAA Advisory Committee

members to determine the topics to be discussed at the first meeting. In considering potential topics, the ACAA Advisory Committee is keeping in mind that the FAA Reauthorization Act of 2018 (the Act) outlines specific tasks that the committee must complete within a specified time. Specifically, section 438 of the Act states that, no later than six months after the first meeting, the committee must submit to the Secretary and the appropriate committees of Congress a report that assesses the current regulations with respect to practices for ticketing, pre-flight seat assignments, access to bulkhead seating, and stowing of assistive devices for passengers with disabilities. In addition, section 439 of the Act states that, no later than fourteen months after the establishment of the committee, and annually thereafter, the committee must submit to the Secretary a report on whether the current regulations, programs, and activities of the Department are addressing the disability-related access barriers encountered by air travelers with disabilities. Further, section 434 of the Act requires the Secretary to develop an "Airline Passenger with Disabilities Bill of Rights." Section 434 states that, in developing the Airline Passengers with Disabilities Bill of Rights, the Secretary shall consult with stakeholders, including disability organizations and covered air carriers and their contractors. The ACAA Advisory Committee members have discussed these various mandates of the Act and the importance of giving priority to mandates in the Act when selecting topics for discussion at the ACAA Advisory Committee meeting. The Department will issue a Federal Register notice announcing the date of the first meeting and topics to be discussed after agreement is reached with the ACAA Advisory Committee members.

Question 3. Can you explain the responsibilities of the Air Ambulance and Patient Billing Advisory Committee?

ANSWER. The Air Ambulance and Patient Billing (AAPB) Advisory Committee, which was established pursuant to the FAA Reauthorization Act of 2018 (the Act), is tasked with advising the Secretary on issues related to the air medical service industry and the bills that consumers receive after using air medical services. The charter specifies that the AAPB Advisory Committee will review options to improve the disclosure of charges and fees for air medical services, better inform consumers of insurance options for such services, and protect consumers from balance billing. Based on its review, the AAPB Advisory Committee will make recommendations regarding disclosure of charges and fees for air ambulance services and insurance coverage, as well as consumer protection and enforcement authorities of both the Department and state authorities, and balance billing issues for consumers.

Question 4. What is the status of the Department's efforts related to service animals and emotional support animals in air transportation?

ANSWER. The Department is committed to ensuring that individuals with disabilities can continue to use their service animals while also deterring the fraudulent use of animals not qualified to be service animals. Last year, in response to concerns expressed by various stakeholders, the Department issued an advance notice of proposed rulemaking regarding the need for a change in the Department's service animal regulation. The Department expects to issue a notice of proposed rulemaking (NPRM) this calendar year. This NPRM is currently under executive review.

Because the rulemaking process can be lengthy, we also recently issued a Statement of Enforcement Priorities Regarding Service Animals that reflects the Department's view of where to focus its limited resources with respect to service animals. Focus will be on clear violations of the current rule that have the potential to adversely impact the largest number of persons.

QUESTIONS FROM HON. PETE STAUBER TO HON. JOEL SZABAT, ACTING UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

Question 1. I am concerned that PHMSA did not comply with the legislative language in the FAA Reauthorization Act (H.R. 302) to provide "Exceptions for Air Transportation of Medical Device Batteries" in the HM–224 (RIN 2137–AF20—Hazardous Materials: Enhanced Safety Provisions for Lithium Batteries Transported by Aircraft, FAA Reauthorization Act of 2018) Interim Final Rule. Will PHMSA address this issue in the Final Rule?

ANSWER. In Section 333(b)(1) of the FAA Reauthorization Act of 2018, Congress mandated a 45-day time frame in which the Secretary must consider and grant or deny applications for special permits or approvals for the air transportation of lithium ion cells or batteries specifically used by medical devices. In Section 333(b)(2), Congress required the Secretary to issue limited exceptions to the restrictions on the transportation of lithium ion and lithium metal batteries to allow the shipment on

a passenger aircraft of not more than two replacement batteries specifically used for a medical device if certain conditions are met.

The Department is implementing the provisions of the Act through the rulemaking process. In its March 6, 2019, Interim Final Rule, 84 FR 8006, Hazardous Materials: Enhanced Safety Provisions for Lithium Batteries Transported by Aircraft, PHMSA established an exception in 49 CFR 173.185(g) that permits the transport of up to two lithium batteries for medical devices on a passenger aircraft, with the approval of PHMSA's Associate Administrator, and waives the state of charge limit under the conditions specified in Section 333(b) of the Act. The Interim Final Rule included exceptions through an approval authorization consistent with the legislative mandate.

Additionally, the regulatory text includes the definition of a medical device, conditions on the use of the exception, and the packaging requirements set forth in the Act's limited exceptions to restrictions on air transportation of medical device batteries in Section 333(b)(2). PHMSA requested and received comments on the provision and will address these comments in a Final Rule that is currently being drafted.

Question 2. What progress has PHMSA made in establishing the "Lithium Battery Safety Working Group" or the Lithium Battery Federal Advisory Committee (FACA)?

ANSWER. In July 2019, pursuant to Section 333(c) of the FAA Reauthorization Act of 2018, PHMSA established a lithium battery safety working group to promote and coordinate efforts related to the promotion of the safe manufacture, use, and transportation of lithium batteries and cells. The Working Group includes members from three DOT operating administrations (Pipeline and Hazardous Materials Safety Administration, the Federal Aviation Administration, and the National Highway Traffic Safety Administration), the Consumer Product Safety Commission, the National Institute of Standards and Technology and the Food and Drug Administration.

Guided by the language in Section 333(c) of the Act, PHMSA created a group with diverse expertise that reflects the range of applications for lithium battery technology and unique hazards associated with the air transport of lithium batteries. The Working Group jointly developed a charter to outline the scope of the work and facilitate advancement of its objectives, and the group is actively meeting to fulfill those objectives.

Additionally, on May 9, 2019, pursuant to Section 333(d) of the Act, and in accordance with the Federal Advisory Committee Act (FACA) as amended (5 U.S.C., App. 2), PHMSA filed a charter formally establishing the Lithium Battery Air Safety Advisory Committee. Following a public recruitment process to nominate members, Transportation Secretary Chao appointed 20 members to serve on the committee October 2, 2019. The Advisory Committee is expected to hold its first meeting in January 2020.

Question 3. What progress has the agency made in relation to Section 333(e): Cooperative Efforts to Ensure Compliance with Safety Regulations for enhancing international enforcement efforts to promote lithium battery regulatory compliance and safety?

ANSWER. On October 5, 2018, Section 333 of the FAA Reauthorization Act of 2018 directed the Secretary of Transportation to carry out a wide range of activities related to lithium batteries, from revising regulations to harmonize with international standards, to evaluating packaging standards and providing forums to enhance stakeholder input. Section 333(e) directs the Secretary to improve interagency and international cooperative efforts to ensure compliance with safety regulations for air transport of lithium batteries. The mandate includes an initial report to Congress describing cooperative efforts carried out, or planned to be carried out, under this subsection. The Secretary will also provide Congress annual updates for the subsequent two years following the initial report.

PHMSA and FAA have increased stakeholder engagement and enforcement related to battery transport requirements. A draft report to Congress, which is currently under review within the Department, provides the initial update related to stakeholder engagement and enforcement activities being taken to reduce noncompliance with battery transport requirements. The information provided in the report will identify the domestic and international efforts currently underway by the Department of Transportation.

QUESTIONS FROM HON. DON YOUNG TO HON. JOEL SZABAT, ACTING UNDER SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

Question 1. As you know I am a strong supporter of the Essential Air Service program, which is vital to rural America, but specifically to Alaska and Alaskans. I understand you visited Alaska last year to meet with EAS stakeholders in my state. Thank you for your attention to this vital program and for visiting. Will you commit to continuing to support this vital program?

ANSWER. The Department understands the importance of this Congressionally-funded program to the communities it serves. During my visit to Alaska last year, I heard first-hand accounts of the role that Essential Air Service flights play in connecting Alaskans to the National Transportation System. I will continue to provide good stewardship of Essential Air Service funding, and implement the program in the most efficient and cost-effective way possible. One-third of the active EAS communities are in the state of Alaska, and the Department continues to work with the State of Alaska and the communities to support their varied needs across the State.

QUESTIONS FROM HON. GARRET GRAVES TO SARA NELSON, INTERNATIONAL PRESIDENT, ASSOCIATION OF FLIGHT ATTENDANTS—CWA, AFL–CIO

Question 1. How will the provision that prohibits the involuntary bumping of passengers after they have boarded improve the boarding process and experience for both flight attendants and passengers?

ANSWER. Typically, a Flight Attendant would not be responsible for removing a passenger from a flight. If there was a discrepancy a Flight Attendant would refer to the Customer Service agent. However, Flight Attendant staffing, on most flights, is at FAA minimums which means that when a situation arises, such as duplicate seat assignments, Flight Attendants are not able to leave the aircraft to coordinate with gate agents and to gain/relay information to the passengers. Provisions that prevent involuntary bumping after a passenger has boarded will help to ensure some of these issues are resolved before passengers get on the aircraft.

Question 2. How will revised regulations related to service animals and emotional support animals be received by flight attendants? What are some of the issues that you believe need to be clarified as part of that process?

ANSWER. We support guidance and better regulations which protect the rights of people with disabilities and our veterans who legitimately need to travel with service animals. We applaud the DOT's needs to move forward with setting standards to cut down on fraud. Clear rules are necessary to ensure access to service animal assistance for people with disabilities and our veterans, while maintaining the safety, health and security of all passengers and crew onboard our planes.

However, we believe ESAs should not be included in the DOT definition of a service animal under the ACAA. We recommend they be regulated separately and distinctly from service animals.

Airlines should be allowed to limit the size of ESAs and other service animals to account for the available space in the cabin. This determination should be made at check-in by an airline employee who is properly trained and experienced.

To mitigate such issues, in addition to chronic understaffing, flight attendants have suggested solutions that could be mandated in a revision to the ACAA regulation. These include the following:

- Require airlines to develop specific procedures and concomitant training and information to address attacks and other non-compliant behavior by service animals and their owners in the cabin.
- Require use of a form or other sort of informational tool to give to passengers who are non-compliant with respect to their animal in the cabin. This form would state the airline's rules and thereby reinforce the flight attendant requests.
- Require that some form of accurate, pre-flight, standardized documentation be provided to crewmembers specifying the category of each animal in the cabin (e.g., whether they are pets, emotional support, or service animals.)
- Require that flight attendant manuals, training materials, and other bulletins better reflect the rules and policies of the airline and the contents of its contract of carriage.

QUESTIONS FROM HON. SAM GRAVES TO CAPTAIN BOB FOX, FIRST VICE PRESIDENT, AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

Question 1. In your written testimony you point out that in 2018 the FAA issued 5,788 Air Transport Pilot (ATP) certificates and that your research showed that airlines hired 4,600 pilots that year.

a. Does the 4,600-pilot number include hiring by all Part 121 air carriers?
b. For instance, do you know whether the 4,600-pilot number includes hiring by regional air carriers?

ANSWER. The number of 4,600 pilots includes most of the Part 121 air carriers. It includes the large passenger airlines (e.g., American, Delta, United, JetBlue, and Spirit) and also the large cargo carriers (e.g., FedEx and UPS). However, the figure does not include regional air carriers. It should be noted that a very high percentage of the 4,600 pilots hired by the large airlines in 2018 will be sourced from regional air carriers (with the remaining candidates generally hired directly from the military). In turn, the regional air carriers that lose pilots to the large airlines will end up hiring new pilots from their available source of pilots, most of which will be from the newly issued ATP's and Restricted ATP's.

Question 2. In your written testimony you state that the supply of pilots is keeping up with demands. Can you tell me, is pilot hiring keeping up with projected commercial pilot retirements?

ANSWER. Pilot hiring at mainline carriers is keeping up with existing and projected pilot retirements. For the large airlines, there are two main reasons for hiring: (1) mandatory retirements at age 65 and (2) airline fleet growth. Over the last 3 years (2016–2018), the FAA has issued over 19,500 new ATPs (including R–ATPs), and over 33,000 new ATP's have been issued in the last 5 years. The large airlines have not reported any shortage in the pool of available pilots.

Question 3. What is the failure rate for new pilots going through airline training? Is this failure rate typical or has it increased?

ANSWER. Anecdotally the failure rate is very low historically and continues to be. FAA monitors failure rate as a measure of the quality of the airline's training program. Even at individual airlines the numbers are difficult to determine due to how the data is collected. For instance, airlines typically don't differentiate those who actually failed from those who were performing well but left before training was completed to accept a more attractive job at a different airline. This is prone to occur over the past few years due to the majority of airlines hiring. With the advent of social media, pilots these days are very well educated on the culture, work/life balance, pay, benefits, career progression opportunities, etc. at each airline. Therefore, the airlines with the most attractive employee package to offer are likely to be able to pick from the most qualified pilots available and as a result see fewer training failures or difficulties. In addition, airlines that tailor their training based on the pilots hired, to account for things such as having very little experience or not having flown much in recent years, also see fewer training failures.

Question 4. Can you talk about the importance of voluntary reporting programs and data sharing and how it has improved aviation safety across the industry?

ANSWER. Voluntary safety reporting programs provide critical data that has moved the aviation industry from a reactive approach to safety to one that is proactive. These programs allow us to identify risk in the system before an accident occurs so that the appropriate changes necessary to mitigate the risks can be implemented. Analysis is done at individual airlines but is also valuable through data sharing programs such as the Aviation Safety Information Analysis and Sharing (ASIAS) program to identify opportunities for improvement within areas such as training, procedural designs, and other aspects of an operation. Individual voluntary programs can also improve the safety culture at an airline, allowing each employee the opportunity to recognize the role they play in safety and take ownership. Voluntary safety reporting programs are currently at the core of aviation safety risk management within the United States because of the unique information they are able to provide.

QUESTIONS FROM HON. GARRET GRAVES TO GREGORY S. WALDEN, AVIATION COUNSEL, SMALL UAV COALITION

Question 1. In your testimony, you mention concerns that the UAS Integration Pilot Program (IPP) lacks transparency. While the initial report on the program has not yet been published, in your opinion what changes would you like to see to create greater transparency in the waiver processing?

ANSWER. Before Part 107 was effective, drone operators were required to obtain an exemption under section 333 of the FAA Modernization and Reform Act of 2012. Section 333 petitions for exemption were docketed and available to the public in full, except for proprietary materials such as an operations manual. Today, the public does not see any part of a Part 107 waiver application. While waivers, like exemptions, are made public, the drone community is not able to glean from successful waivers guidance on what the FAA will accept to demonstrate safety.

The FAA's Drone Advisory Committee (DAC) recently adopted several recommendations to improve the Part 107 waiver process that the FAA should accept. Among them are two recommendations addressing transparency:

- FAA should create a checklist to inventory examples of acceptable safety cases for waiver approvals that will serve as constructive feedback for denied waiver applications.
- The FAA should increase transparency and accountability by creating a pathway for applicants to learn why their applications were not approved and by whom.

In addition to these two recommendations, it would also benefit the UAS industry to receive periodic reports on projects being undertaken within the rubric of each IPP participant, including the operational environment in which UAS operations have been conducted.

Question 2. As you know, national security agencies, airports, state and local governments, and many others, are concerned about the risk posed by users of UAS. While most UAS users are responsible and adhere to the rules of the sky, operations by "the clueless, the careless, and the criminal" can pose risks to people on the ground and other airspace users. How do we turn "the clueless and the careless" into responsible users so that we can focus on countering the criminal?

ANSWER. Congress took the first step in the FAA Reauthorization Act of 2018 when it repealed section 336 of the 2012 law to ensure all UAS operators are subject to FAA safety regulations.

The second step is to require recreational users to pass an aeronautical knowledge test, which section 349 of the 2018 law requires. The Small UAV Coalition also supports online testing, as directed in section 349. Online testing will likely attract many recreational users who otherwise would elect not to travel to a testing center. For it to be effective, online testing must cover the relevant subjects and the testing process must be secure against cheating.

A third step is to implement a remote identification rule that applies to recreational operators. Remote ID will promote accountability and discourage those who might be inclined to invade a neighbor's privacy believing they will not be caught. FAA will need to conduct a campaign to promote equipage and compliance with the rule, after which time enforcement action should be considered.

A fourth step is to use traditional and social media to alert recreational users about no fly zones and other restrictions to avoid any adverse impact on air carrier operations and to protect the public's safety. To expand beyond the reach of Know B4U Fly, Public Service Announcements (PSAs) should be made before certain events and during forest fire season. These announcements should reach all segments of recreational UAS operators. Local drone groups can also sponsor drone training programs to make it easy to learn how to operate a drone safely.

○