S. Hrg. 117–777

AVIATION INFRASTRUCTURE FOR THE 21ST CENTURY

HEARING

BEFORE THE

SUBCOMMITTEE ON AVIATION SAFETY, OPERATIONS, AND INNOVATION OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

JUNE 23, 2021

Printed for the use of the Committee on Commerce, Science, and Transportation



Available online: http://www.govinfo.gov

U.S. GOVERNMENT PUBLISHING OFFICE WASHINGTON : 2023

54–181 PDF

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

MARIA CANTWELL, Washington, Chair

AMY KLOBUCHAR, Minnesota RICHARD BLUMENTHAL, Connecticut BRIAN SCHATZ, Hawaii EDWARD MARKEY, Massachusetts GARY PETERS, Michigan TAMMY BALDWIN, Wisconsin TAMMY DUCKWORTH, Illinois JON TESTER, Montana KYRSTEN SINEMA, Arizona JACKY ROSEN, Nevada BEN RAY LUJAN, New Mexico JOHN HICKENLOOPER, Colorado RAPHAEL WARNOCK, Georgia ROGER WICKER, Mississippi, Ranking JOHN THUNE, South Dakota ROY BLUNT, Missouri TED CRUZ, Texas DEB FISCHER, Nebraska JERRY MORAN, Kansas DAN SULLIVAN, Alaska MARSHA BLACKBURN, Tennessee TODD YOUNG, Indiana MIKE LEE, Utah RON JOHNSON, Wisconsin SHELLEY MOORE CAPITO, West Virginia RICK SCOTT, Florida CYNTHIA LUMMIS, Wyoming

DAVID STRICKLAND, Staff Director MELISSA PORTER, Deputy Staff Director GEORGE GREENWELL, Policy Coordinator and Security Manager JOHN KEAST, Republican Staff Director CRYSTAL TULLY, Republican Deputy Staff Director STEVEN WALL, General Counsel

SUBCOMMITTEE ON AVIATION SAFETY, OPERATIONS, AND INNOVATION

KYRSTEN SINEMA, Arizona, Chair TAMMY DUCKWORTH, Illinois JON TESTER, Montana JACKY ROSEN, Nevada JOHN HICKENLOOPER, Colorado RAPHAEL WARNOCK, Georgia TED CRUZ, Texas, *Ranking* JOHN THUNE, South Dakota ROY BLUNT, Missouri JERRY MORAN, Kansas MIKE LEE, Utah SHELLEY MOORE CAPITO, West Virginia

CONTENTS

Hearing held on June 23, 2021 Statement of Senator Sinema Statement of Senator Cruz	$\frac{1}{29}$
Statement of Senator Rosen	48

Danette Bewley, President and CEO, Tucson Airport Authority	$\frac{3}{5}$
Paul Cullen, Vice President of Real Estate, Southwest Airlines	
Prepared statement	13
Paul Rinaldi, President, National Air Traffic Controllers Association	15
Prepared statement	16
Dr. Benjamin Miller, The RAND Corporation	30
Prepared statement	32
Sean Donohue, CEO, Dallas Fort Worth International Airport	41
Prepared statement	42

Appendix

Letter dated June 25, 2021 to Hon. Maria Cantwell, Hon. Roger Wicker,	
Hon. Kyrsten Sinema and Hon. Ted Cruz from Matt Atkinson, President,	
Alaska Air Carriers Association and Jane Dale, Executive Director, Alaska	
Air Carriers Association	53
Response to written question submitted by Hon. Tammy Duckworth to:	
Danette Bewley	55
Paul Cullen	55
Sean Donohue	56

AVIATION INFRASTRUCTURE FOR THE 21ST CENTURY

WEDNESDAY, JUNE 23, 2021

U.S. SENATE,

SUBCOMMITTEE ON AVIATION SAFETY, OPERATIONS, AND INNOVATION,

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION, Washington, DC.

The subcommittee met, pursuant to notice, at 3:16 p.m., in room SR–253, Russell Senate Office Building, Hon. Kyrsten Sinema, Chairman of the Subcommittee, presiding.

Present: Senators Sinema [presiding], Rosen, and Cruz.

OPENING STATEMENT OF HON. KYRSTEN SINEMA, U.S. SENATOR FROM ARIZONA

Senator SINEMA. Welcome to the Senate Subcommittee on Aviation Safety, Operations, and Innovation. In our first subcommittee hearing, this subcommittee looked at how the U.S. aviation system has addressed its most significant challenge in many years, COVID-19. To overcome that challenge, we saw all aviation stakeholders, including airports, air carriers, labor, manufacturers and concessionaires work together with Democrats and Republicans to keep our aviation system functioning and ready to rebound as we vaccinate Americans from COVID-19.

As we start to see air travel recover, this subcommittee will now turn its focus to aviation infrastructure. Over the past month, I have been leading bipartisan negotiations with Senator Portman to invest broadly in our Nation's infrastructure. Our bipartisan proposal has the support of 21 Senators, including 10 Democrats and 11 Republicans. As we continue to negotiate that package, this is an appropriate time for our subcommittee to consider our aviation system and its infrastructure needs.

We have over 3,300 public airports in the United States, including 200 just in Arizona. Throughout this vast system, we need to ensure that we have the aviation infrastructure to remain the world leader on safety, to improve the efficiency of air travel, and to modernize air travel for the 21st century. Studies on the current state of aviation infrastructure show that we need to do better. For example, the American Society of Civil Engineers report card on America's infrastructure gave our country's aviation structure—infrastructure a D+. And other reports have indicated there are over \$100 billion of aviation infrastructure projects necessary over the coming years. Before the pandemic, we saw record levels of airline passenger traffic, which put pressure on our existing infrastructure. This increased demand highlighted the need to improve runways and taxiways, terminals and air traffic control towers, to prevent overcrowding and delays. While COVID temporarily decreased passenger traffic, the pandemic set us further behind in our efforts to address our aviation infrastructure needs. I was proud that the bipartisan Air Act I introduced with Senator Fischer was included in the December coronavirus relief bill. Our law helped stabilize Federal funding for airports during the pandemic.

But despite congressional relief efforts, the abrupt collapse of passenger traffic cut off many airport resources and halted or delayed many projects scheduled to begin last year. As passenger traffic rebounds, we will again see the concerns associated with increased demand for passenger and cargo flights. To address these concerns, we have to understand what improvements are needed for our tarmac, terminals, and towers, whether the structure to help pay for these improvements needs to be revised, and how to ensure that all airports can meet their needs regardless of whether they serve a city like Tucson or smaller communities like Tombstone or Tuba City.

Additionally, Congress should consider other options to encourage aviation infrastructure development. For example, I just reintroduced, along with Senator Young and Senator Cruz, the Expedited Delivery of Airport Infrastructure Act. This bipartisan legislation would allow airports to use airport improvement program funds to incentivize contractors to finish airport construction projects ahead of schedule. Currently, airports cannot use AIP funds to incentivize early completion of airport projects, even if the early completion would result in significant capacity or efficiency gains for the airport. Our bill allows airports to use up to \$1 million in AIP money to incentivize contractors to complete projects early, resulting in cost savings and efficiency gains.

We have an excellent panel joining us today, with representatives from airports, air carriers, air traffic controllers, and an economist who has studied aviation infrastructure to provide the Subcommittee with their testimony about how to improve our aviation infrastructure, how to pay for those improvements, and how to ensure that the U.S. aviation system remains the best in the world. In particular, I want to welcome an Arizonan to our panel today, Danette Bewley, the President and CEO of the Tucson Airport Authority. I am pleased that she is here to describe the infrastructure needs at Tucson International Airport, and the comprehensive airfield safety enhancement project underway at the airport. Thank you all so much for being here today. And I turn the time over to Senator Cruz for his opening statement.

If we are still waiting for Senator Cruz, then what I will do is go ahead and introduce our panel and allow Senator Cruz to provide his opening statement upon his availability. So I would like to now recognize Senator Cantwell, if she is with us, for her opening remarks. Alright, we are going to continue to wait for Senator Cantwell as well. Senator Wicker—I just want to check. Senator Wicker is not with us yet. Great. So when they join we will allow them to do their opening remarks. And we will move right to our introduction of our witnesses. So I will introduce our witnesses for today's hearings. Our first witness is Danette Bailey, the President and CEO of the Tucson Airport Authority, which operates Tucson International Airport and Ryan Airfield. She served as the President and CEO of the Airport Authority since 2019, and she has over 30 years of experience in airport management.

Thank you so much for your work and for joining us today. And now you are recognized for your opening statement.

STATEMENT OF DANETTE BEWLEY, PRESIDENT AND CEO, TUCSON AIRPORT AUTHORITY

Ms. BEWLEY. Good afternoon, Chair Sinema, Ranking Member Cruz, and members of the Subcommittee. Thank you for holding this important hearing to examine America's aviation infrastructure needs. I think we all agree that America's airports are fundamental component of our Nation's transportation infrastructure and are essential to our Nation's economic success.

We have a footprint in every community, annually supporting \$1.4 trillion in economic output and over 11 million jobs. To meet the capacity demands of the future with safe, efficient, and modern facilities that passengers and cargo shippers expect, airports need to make new investments to maintain and upgrade their infrastructure. Airport infrastructure suffered from chronic underfunding even before the pandemic forced the delay or postponement of many planned projects.

For far too long, instead of investing in larger, higher impact projects that would improve facilities and increase capacity, airports have been forced to prioritize smaller, immediate needs, like maintenance of aging structures and systems. Inadequate airport infrastructure that fails to meet basic needs puts in jeopardy economic recovery in American cities, states, and regions. In addition to creating jobs, new investments in airports can be valuable tools in helping local communities attract air service, which increases competition and leads to lower airfares for passengers.

Airports Council International North America, the trade association representing airports throughout the country, released an updated infrastructure needs report detailing the more than \$115 billion in infrastructure needs over the next 5 years across the national airport system. Since this survey was conducted in the middle of the pandemic, it does not fully account for all of the new public health infrastructure upgrades airports need to make, such as HVAC improvements, physical distancing space near gates, and touchless technology to assist passengers through the airport.

Coupled with the current debt burden of nearly \$90 billion from past projects, the report shows that our airports are falling further behind in their efforts to upgrade their facilities and improve the overall experience for their customers. We need your help. At Tucson International, we support a complex mix of aircraft, including commercial, commuter, general aviation, and military. This airport is the home of the Arizona Air National Guard's 162nd Wing.

In addition to providing national security, the Wing trains our allied nation partners in the F-16 aircraft. To safely support the needs of our many operators and meet current FAA safety and standards, the TAA broke ground last fall on the Airfield Safety Enhancement Project. That groundbreaking, however, was a product of years of planning and preparation and only a small step forward in the overall project. The \$330 million project in today's dollars took nearly a decade to clear Federal hurdles, including a planning study, EIS process, record of decision, and multiparty negotiations with a myriad of stakeholders.

This is one of several multimillion dollar infrastructures that the TAA has on its list. However, without a committed and reliable stream of Federal funding that is delivered efficiently, it will be years before we can accomplish these essential projects. As you know, airports are economic engines for their respective communities. Small and medium hub airports feed the national aviation system and serve the needs of millions of travelers each year.

Unfortunately, many small and medium hub airports have infrastructure that has long outlived their useful life spans and are now operating in a rent to fail mode because they lack reliable sources and streams of funding. Terminal improvements at large hub airports through which many of our passengers connect also helps smaller airports become—because greater capacity at those hubs allows for greater service to smaller communities. If the hubs are constrained, incumbent carriers will maximize profit on routes between large cities and new entrants will not be able to access the market.

These market distortions drive up airfares and reduce flight choices for consumers. Implementing the following policy recommendations for infrastructure legislation will help airports pay for their growing list of capital projects, as well as support jobs, stimulate local economies, and prepare for rising passenger levels in the recovery ahead. Provide direct funding, Federal funding for airport infrastructure projects by providing at least \$50 billion in new funding over the next 5 years for all sized airports. That includes broad flexibility to allow for a variety of needed projects.

Direct Federal investment in this period of economic recovery would help airports pay for the growing list of capital projects while other funding sources remain constrained. Modernize the outdated Federal cap on airport local user fees by considering a gradual phased in approach that would restore the original purchasing power of the \$4.50 PFC. To that end, bipartisan legislation has been introduced in the House that starting in 2023 would allow airports to increase the PFC by \$1 annually for 4 years and then index it annually for inflation.

This would provide America's airports a long term, locally controlled, and reliable funding source to maintain and upgrade their aging facilities and remain competitive. Help airports finance critical infrastructure projects by allowing airports to continue to finance critical infrastructure projects with tax exempt municipal bonds and private activity bonds and eliminate the alternative minimum tax penalty on airport private activity bonds.

Expand the Transportation Infrastructure, Finance and Innovation Act for airport development projects. Exclude airport private activity bonds—funds completely from the alternative minimum tax. Reinstate advanced re-funding on all municipal bonds, including private activity bonds. Restore the interest exemption for banks investing in airports. And support and fund the contract tower program. TAA and the Nation's airports are in critical need of infrastructure funding.

On behalf of the TAA and our great Nation's airports, thank you for inviting me to speak today about airport infrastructure needs. Your support is appreciated. Thank you.

[The prepared statement of Ms. Bewley follows:]

PREPARED STATEMENT OF DANETTE BEWLEY, PRESIDENT AND CEO, TUCSON AIRPORT AUTHORITY

Chair Sinema, Ranking Member Cruz, and members of the subcommittee, thank you for holding this important hearing to examine America's aviation infrastructure needs. I am Danette Bewley, President and CEO of the Tucson Airport Authority. The TAA operates Tucson International Airport (TUS), the region's major commercial airport, and Ryan Airfield (RYN), a general aviation airport west of Tucson. Our authority is a unique nonprofit created and developed by community business leaders and established by Arizona state charter in 1948.

Airports Can Build the Runway to Economic Recovery and Growth

As we have demonstrated in Tucson, America's airports are a fundamental component of our Nation's transportation infrastructure and are essential to our Nation's economic success. We have a footprint in every community, annually supporting \$1.4 trillion in economic output and 11.5 million jobs. To meet the capacity demands of the future with safe, efficient, and modern facilities that passengers and cargo shippers expect, airports need to make new investments to maintain and upgrade their infrastructure.

Airport infrastructure suffered from chronic underfunding even before the steep decline in air travelers and airport revenue during the COVID-19 pandemic forced the delay or postponement of many planned projects. For too long instead of investing in larger, higher-impact projects that would improve facilities and increase capacity, airports have been forced to prioritize smaller, immediate needs like maintennance of aging structures and systems.

Inadequate airport infrastructure that fails to meet the growing needs of local businesses and tourists puts in jeopardy economic recovery in American cities, states, and regions. In addition to creating jobs, new investments in airports can be valuable tools in helping local communities attract air service, which increases competition and leads to lower airfares for passengers. Airports need additional resources to build the terminals, gates, runways, and ramps necessary to attract new air carriers and entice existing ones to expand service. The traveling public gets more choices and lower airfares when airports can build the facilities that provide more airline options and more service alternatives.

Airports Continue to Face Substantial Infrastructure Needs

As travelers begin to return to America's airports, one thing has not changed: our airports continue to face substantial infrastructure needs. In March, Airports Council International—North America (ACI–NA), the trade association representing airports throughout the country, release an updated infrastructure needs report detailing the more than \$115 billion in infrastructure needs over the next five-year across the national airport system. Since this survey was conducted in the middle of the pandemic last summer, it does not fully account for all the new public-health infrastructure upgrades airports need to make, such as HVAC improvements, physical distancing space near gates, and touchless technology to assist passengers through the airport. Coupled with a current debt burden of nearly \$90 billion from past projects, the report shows that our airports are falling further behind in their efforts to upgrade their facilities and improve the overall experience for their customers.

Tucson International Airport (TUS) Infrastructure Projects

Tucson International Airport (TUS) supports a complex mix of aircraft: commercial air carrier, commuter, general aviation, and military. TUS is the home of the Arizona Air National Guard 162nd Wing. In addition to providing national security, the Wing trains our allied nations in the F-16 aircraft.

Airfield Safety Enhancement Project

To safely support the needs of our many operators and meet current FAA safety and standards, the TAA broke ground on the largest project in its history last fall. That groundbreaking, however, was a product of years of planning and preparation, and only a small step forward in the overall project. The Airport Safety Enhancement Project, an approximate \$330M project (in todays' dollars), took nearly a decade to clear Federal hurdles, including a Planning Study, Environmental Impact Statement (EIS) and Record of Decision (ROD), and multiparty negotiations with a myriad of stakeholders.

The project was born out of the exceptionally high number of runway incursions, wrong surface landings and pilot deviations due to confusion in various areas, referred to as "hot spots," which compromise the safety of all operators and users, and have the potential to cause loss of life. To mitigate these issues, the project includes bringing portions of the airfield up to current FAA safety standards. In essence, the project will demolish and relocate a parallel runway (to ensure adequate safety separation between the two parallel runways), add a center taxiway between the parallel runways for added safety, and adds new taxiways to support the new airfield layout and infrastructure. Successful completion of this project is contingent on a committed source and steady stream of Federal funding that will allow the project to proceed efficiently and minimizes excessive project costs that come with a longer, multi-year process. As you know, time is money. Optimally, our plan is to complete this essential safety and infrastructure project within 4–6 years. That timing is *entirely* dependent on Federal funding. This is an aggressive schedule; however, safety is paramount.

Terminal Infrastructure

Integrated In-Line Explosive Detection System

The Tucson Airport Authority is engaged in a Terminal Study to outline a phased approach to improve the terminal to meet the long-term needs at TUS. The first phase of work includes the construction of an Integrated In-Line Explosive Detection System (security screening for passenger checked baggage) to replace five (5) outdated, disconnected and undersized pods that the TSA utilize. The existing stand-alone system is outdated, and because of its' age has multiple points of failure that require regular heavy maintenance. In addition, the system forces the TSA to staff these individual areas, which is an inefficient use of labor resources. The new Integrated In-Line Explosive Detection System will provide an updated and efficient approach to checked baggage security screening and decrease TSA labor costs. The cost for this project will not be determined until the study is complete. However, without available infrastructure funding it could be years before the TAA can invest in this essential security project.

Concourse Expansion

To meet passenger growth and demand, future phases of terminal improvements require concourse expansions to both Concourse A and Concourse B at TUS. This includes, and is not limited to, gate additions with appropriate hold room space to meet capacity demand and airline fleet requirements (aircraft size), concessions space to provide passengers with expected amenities and allow the airport with a source of revenue generation, airline support space, etc. The cost for expansion will not be determined until the study is complete. However, without available infrastructure funding it could be years before the TAA can invest in this essential capacity project.

Landside

The TAA is a stakeholder in a Transit Study underway by the City of Tucson. The project will evaluate ways to improve multi-modal access between downtown Tucson and TUS through Bus Rapid Transit or Light Rail. The TAA will need to plan and construct a transit center close to the terminal. Cost estimates are not yet available. However, without available infrastructure funding it could be years before the TAA can invest in this multi-modal project.

Cargo Infrastructure

A result of the COVID-19 pandemic is a significant increase in air cargo traffic at TUS (and nationwide). TUS is in the planning stage for additional Cargo Apron space (construction) to meet the demand. While the air cargo operators have traditionally paid for their building and sortation facilities, airports must pay for the basic infrastructure costs (concrete, utilities, etc.) through Airport Improvement Program (AIP) funds, other grant sources or other funding sources. Preliminary estimates for the first phase of cargo apron expansion range between approximately \$15-\$20M dollars (in todays' dollars), depending on capacity.

Roadway Infrastructure

To meet both the anticipated growth in multi-modal cargo needs and improve passenger access to the TUS terminal, TAA is in the process of preliminary design to extend Country Club Road, a main access road, to the south. This \$15-\$20M project (in todays' dollars) will also provide access to airside and landside parcels which will increase economic development opportunities. Related to this project is the current ADOT Tier 1 study to construction the Sonoran Corridor. The Corridor will provide a connection between I–19 and I–10 south of TUS and will relieve congestion at the current interchange, improve access to TUS for passengers traveling from south side of the region, and enhance the cargo and logistic flow coming from Mexico to the entire county.

Other Airports

In addition to being economic engines for their respective communities, small-and medium-hub airports feed the national aviation system and serve the needs of millions of travelers each year. Yet many small-and medium-hub airports have infrastructure that has long outlived their useful lifespans and are now operating in a "run to fail" mode because they lack reliable sources and streams of funding. These airports are forced to deal with infrastructure issues related to facility age, exceeded design capacities, outdated technology, congestion, environmental issues, etc., which causes inefficiencies, higher costs, lower levels of service, and loss of business through missed opportunities. The delivery of sound and reliable airport infrastructure is an essential factor for economic growth and for the health of the national aviation system.

Terminal improvements at large-hub airports, through which many of our passengers connect, also help smaller airports because greater capacity at those hubs allows for greater service to smaller communities. If the hubs are constrained, incumbent carriers will maximize profit on routes between large cities and new entrants will not be able to access the market. These market distortions drive up airfares and reduce flight choices for consumers.

I also want to highlight a few of the airport infrastructure projects slated to be underway over the next few years at airports across the country. The needs are great at all airport hub sizes and collectively as an industry the needs are greatest for terminal construction. The ACI–NA infrastructure study shows \$40 billion in terminal projects alone.

Salt Lake City International Airport (SLC)

The Salt Lake City International Airport has a \$768 million new terminal project that will allow for more efficient and sustainable state-of-the art facility with the ability to meet changing passenger needs for decades to come. It consolidates all air-carrier passenger-processing operations into a single, multi-level terminal building, replacing three older unit terminals. Accommodating both domestic and international flights, the terminal includes areas for all essential spaces needed for passenger and airline operations.

The terminal building also includes a new baggage system that will cost \$199 million and consists of both inbound and outbound baggage-handling equipment. The new consolidated outbound system has baggage entry points at the ticketing level of the terminal, the terminal curb, and remote check-in counters. The outbound baggage system includes a fully integrated centralized in-line baggage screening matrix including six explosive detection system machines. The second phase of construction will extend the outbound sortation system to remote Concourse B via high-speed conveyors.

Kansas City International Airport (MCI)

My colleagues in Kansas City are also working on a new \$1.5 billion terminal. The new terminal is over one-million square feet, making it the largest single infrastructure project in the city's history. It will have a lasting economic impact on the region in the form of supporting new jobs and opportunities for local and small businesses, as well as creating a first-class traveler experience for airport users. The terminal will open with 39 gates, with the ability to expand to 50 gates in the future. When complete, the facility will replace the airport's dated and aging terminals, which opened in 1972. The shift in consumer buying to e-commerce has presented a unique opportunity for airports to expand cargo capacity and operations. Airports of all sizes need the necessary infrastructure in place to capitalize on these opportunities.

Savannah-Hilton Head International Airport (SAV)

Savannah Hilton Head Airport has a \$60 million project that will offer growth opportunities for the airport's current air cargo providers, as well as provide additional space for new tenants. It will allow expanded ramp parking to handle up to five Boeing 767 aircraft with room for ground service equipment storage, in addition to the 60,000 square feet of cargo tenant space. With close access to local highways, businesses could expect to have shipments sorted and on the road within two hours of a flight landing. Additionally, the facility will be situated close to the local Customs and Border Protection office, allowing for quick access to shipment clearance.

Other projects detailed in the ACI–NA infrastructure report include COVID-related HVAC and smart-restroom upgrades at Dallas-Fort Worth, a new international arrivals facility in Seattle, and a terminal expansion in Atlanta.

Airport Priorities for Infrastructure Legislation

Given these significant needs across the country, it is time to find the means to rebuild our Nation's aviation infrastructure and improve the passenger experience for millions of travelers. The cost of doing nothing is further paralysis of the aviation system as we seek to rebuild our economy from the devastating impacts of the COVID-19 pandemic. Implementing the following policy recommendations for infrastructure legislation would go a long way towards helping airports pay for their growing list of capital projects, as well as support good-paying jobs, stimulate local economies, and prepare for rising passenger levels in the recovery ahead.

Provide Direct Federal Funding for Airport Infrastructure Projects: As airport capital needs and the list of necessary repairs for aging facilities continue to mount, Congress can help by providing direct Federal funding for new airport capital projects in the infrastructure package. Specifically, we urge you to provide at least \$50 billion in new funding over the next five years for all-sized airports that includes broad flexibility to allow for a variety of needed projects, such as runways, taxiways, terminal upgrade/expansions, public health improvements, security enhancements, and roadway/transit access improvements. Direct Federal investment in this period of economic recovery would go a long way toward helping airports pay for their growing list of capital projects while other funding sources remain constrained. We appreciate that crucial funding for airport infrastructure projects has been included in proposals put forward by President Biden and Senators from both sides of the aisle who are seeking a final agreement on a comprehensive infrastructure package.

Modernize the Outdated Federal Cap on Airport Local User Fees: To ensure continuity in funding airport infrastructure projects once the additional Federal funding is exhausted, airports urge Congress to adjust the outdated Federal cap on local Passenger Facility Charges (PFCs). Since PFCs are local user fees (not taxes) imposed by states or units of local government, they are not collected by the Federal government, not spent by the Federal government, and not deposited into the U.S. Treasury. Instead, PFCs go directly to fund local airport projects approved by the FAA—with input from airlines and local communities—at no cost to the Federal government.

Last changed more than 20 years ago, the PFC cap has not kept pace with rising construction costs and inflation since it was last adjusted to \$4.50 in 2000, and its purchasing power has eroded by 40 percent. Modernizing the outdated Federal cap on the PFC in this time of scare Federal resources would give airports the self-help they need to invest in the terminals, gates, and ramps necessary to attract new air carriers and entice existing ones to expand—thereby promoting competition and lowering airfares for their communities.

TAA's PFC authorization, used for a \$33M terminal infrastructure project in 2015, and other purposes, is currently burdened for approximately 2.5 or more years of collection, assuming a steady return of passengers. You understand how that limits TAA's ability to utilize this more flexible local funding mechanism to address TAA's ongoing infrastructure needs.

Considering the pandemic, Congress must consider a gradual, phased-in approach that would restore the original purchasing power of the \$4.50 PFC. To that end, bipartisan legislation has been introduced in the House that starting in 2023 would allow airports to increase their PFC by \$1.00 annually for four years and then index it annually for inflation. This would provide America's airports a long-term, locally controlled, and reliable funding source to maintain and upgrade their aging facilities, plan for the future, and remain competitive in an increasingly interconnected world.

Help Airports Finance Critical Infrastructure Projects: With limited Federal funds available and an outdated Federal cap on local user fees, airports often turn to the bond market to help finance their infrastructure projects. To help lower airport borrowing costs, Congress should ensure that airports can continue to finance critical infrastructure projects with tax-exempt municipal bonds and private activity bonds and eliminate the alternative minimum tax penalty on airport private activity bonds. While not a substitute for new, direct investment in airports, we suggest the following modifications to tax and lending law to help facilitate greater airport infrastructure upgrades nationwide

- Expand the Transportation Infrastructure Finance and Innovation Act (TIFIA) to airport development projects.
- Exclude airport private activity bonds completely from the alternative minimum tax.
- Reinstate advance refundings on all municipal bonds, including private activity bonds.
- Restore the interest exemption for banks investing in airports.

Airports often use bonds to construct and renovate terminals, maintenance facilities, parking garages, and other facilities. Over the past decade, about 60 percent of bonds issued to finance airport capital projects were issued as private activity bonds, a special type of municipal bond that is issued to finance a facility that serves a public purpose for the benefit of a private user like an airline. Without access to cost-efficient financing many airports will be unable to undertake many needed infrastructure-improvement projects—and as a result, the anticipated job creation and economic activity from these activities will not be realized.

PFC Is the Long-Term Solution to Address Airports' Infrastructure Funding Shortfalls

With America's airports facing over \$115 billion in infrastructure needs across the system, it is time to find the means to rebuild our Nation's aviation infrastructure and improve the passenger experience for millions of air travelers.

It is a common misconception that airports are funded with taxpayer dollars or a general tax on all citizens. Though, infrastructure projects at U.S. airports are funded primarily with Federal grants through the FAA's AIP, the PFC, and airportgenerated revenue from tenant rents, non-aeronautical development, and fees on other commercial activity at airport. Airports often turn to private-capital markets to debt-finance projects, using both PFC-revenue and airport-generated revenue to repay the bonds.

Traditionally AIP grants—which prioritize safety improvements—have been used on airfield projects, while PFC user fees—with greater funding flexibility—have gone towards terminal, ground-access, and major-runway projects. Both are essentially reimbursement programs used to pay for past or existing projects. In the case of PFCs, airports often have committed this revenue-stream for years or decades into the future to repay past projects, meaning they have no new money coming into the system to fund future projects. Federal law requires airports to be self-sustaining, yet it also artificially distorts and constrains the very funding mechanisms designed to ensure market competition and airport-infrastructure growth, as the Federal cap on the PFC has been in place since 2000, and Federal entitlement grants through the AIP have remained stagnant for over a decade.

Thus, under the industry's current financing-funding model airports lack stable, predictable funding sources that keep pace with travel growth, rising construction costs, and inflation for these intensive capital projects. The PFC cap—last adjusted twenty years ago—has seen its purchasing power eroded by 40 percent in the past two decades. And Federal airport grants through the AIP remain stagnant each year under the most recently enacted FAA reauthorization legislation. Moreover, many airports—even those with sterling credit ratings—have reached their debt capacity and either cannot finance new projects or have had to phase in their projects over a longer timeframe, increasing the costs and delaying the benefits for passengers

Fortunately, we can rebuild America's airports without raising taxes or adding to deficit spending by modernizing the Federal cap on the PFC. Modestly adjusting the anti-competitive Federal cap on local PFCs would allow airports to take control of their own investment decisions and become more financially self-sufficient. Airports could build the appropriate facilities—terminals, gates, baggage systems, security checkpoints, roadways, and runways—to meet the travel demands and customer expectations of their community.

It is important to remember PFCs are not taxes (the Tucson Airport Authority has no taxing authority and cannot impose a tax as airport sponsor on passengers)—they are local user fees determined locally and used locally to help defray the costs of building airport infrastructure that benefits customers by improving the passenger experience and spurring airline competition. PFCs are imposed by states or units of local government; so, they are not collected by the Federal government, not spent by the Federal government, and not deposited into the U.S. Treasury. Instead, PFCs go directly to fund local airport projects approved by the FAA, with input from airlines and local communities.

At a time of mounting pressure on our Federal budget, modernizing the Federal government's cap on the PFC is the simplest and most free-market option for providing airports with the locally controlled self-help they need to fund vital infrastructure projects. It would give airports more flexibility to self-finance and leverage private investment without the need for additional taxpayer dollars, thereby allowing airports of all sizes to generate more local revenue for terminals, gates, runways, and taxiways that would increase capacity, stimulate competition, enhance safety and security, and improve the overall passenger experience. Ultimately, modernizing the PFC is the best way to meet the travel challenges of today and build for a strong economy in the 21st century.

Separating Fact from Fiction on the PFC

Finally, I would like to correct the record on numerous misstatements being made about the current state of U.S. airports. The truth is that modernizing airport facilities, growing air service options, cultivating new economic prospects, and improving the passenger experience is the best interest of every local community.

CLAIM: We should not be raising taxes during a pandemic.

FACT: First, the PFC is a user fee, not a tax. The fee is collected by the airline and then sent right back to the airport that the passenger utilized. The money never goes to the Federal treasury or the FAA trust fund in Washington. It is collected locally and spent locally.

Second, airports are leading the COVID-19 recovery, investing in a range of projects to move swiftly to respond to and mitigate the spread of COVID-19. For the long haul, airports must continue to be leaders in health infrastructure, and they will need adequate funding to ensure they are well-equipped to handle similar crises in the future. COVID-19 may have caused a temporary drop-off in passenger levels, but we must prepare for their return. With the current trajectory of cases and vaccinations, we expect passenger levels to increase in the months and years ahead. Airports must be ready to support the increased movement of people and goods to enable a stronger economy. Without these much-needed investments, limited capacity and outdated facilities will hold back airports and our economic recovery.

CLAIM: It is unfair to price-sensitive passengers to raise the cap on the PFC.

FACT:

Despite the pandemic, airports need to repair aging facilities, invest in critical infrastructure, and prepare for the recovery ahead. To help with those ongoing efforts, airports are continuing to urge Congress to raise or eliminate the outdated PFC cap. Because of the challenges presented by the pandemic Congress could also consider a gradual, phased-in approach to adjusting the Federal cap on the PFC. Under either scenario, adjusting the local user fee will lead to improved airports by:

- Allowing airports to improve their facilities and expand their capacity, providing disproportionate benefits to low-income travelers and travelers in rural communities.
- Supporting regional economic growth, including job creation, through infrastructure projects at the local airport.
- Creating competition among airlines, potentially driving down ticket prices with added capacity.

Plus, there is no cap on what the airlines can charge for bags and other ancillary fees. Bag fees alone have increased nearly 27-fold since 2000, with little to no benefit to the passengers. PFCs, on the other hand, go directly towards infrastructure projects that benefit the passengers using that airport.

- CLAIM: We do not need to raise the cap on the PFC because airports have either halted many construction projects, or there is not the need for these projects post-pandemic.
- FACT: Many airports have deferred projects due to the pandemic, but once travel resumes many of these projects will need to be completed. Airports need a long-term source of revenue to make necessary improvements to the health, safety, security, and physical infrastructure of our facilities. These projects are not about fancy terminals, but about making necessary upgrades to decades-old terminals, increasing capacity for the rapid rise in passenger travel, and contributing much-needed growth to local and regional economies. Airports can be either an accelerator to growth or a bottleneck to it. We need to ensure that airports can withstand similar emergencies in the future by investing in important technologies and expanding capacity at our airports to safely accommodate many passengers. Better airport infrastructure can not only help us recover more quickly but can also make that recovery stronger and more sustainable.

CLAIM: Airports are flush with cash

FACT: Airports are projected to experience at least \$40 billion in lost revenue and increased costs from March 2020—March 2022 because of the pandemic, and airports hold about \$87 million in old debt. Prior to the pandemic airports did maintain cash reserves to comply with bond covenants and save in rainy-day accounts. With that rainy day here, airports have had to tap into these cash reserves to make debt payments and maintain operations. Additionally, airports have reduced costs to airlines and provided millions in relief to renters and concessionaires to help them stay afloat during the pandemic. As a result, airports have had spent down their reserves and seek emergency relief funds from Congress just to stay open, maintain operations, and keep their staff.

CLAIM: If there are infrastructure needs at airports, airlines will pay for them.

FACT: While most airport infrastructure projects were not financed by airlines before the pandemic, they certainly are in no financial position to improve airport infrastructure now. In fact, nearly 90 percent of all airport funding comes from airport-generated income, Federal grants, and PFC collections. Even in previous cases when airlines did "fund" airport infrastructure projects it was rarely direct money, rather payments that came from their regular landing fees and use-and-lease agreements at airports. Moreover, the airlines tend to focus their investments on their hubs while providing little to no infrastructure investment at smaller commercial service airports around country.

Senator SINEMA. Thank you so much. Our next witness is Paul Cullen, the Vice President for real estate at Southwest Airlines. He has been with Southwest for over 15 years and is responsible for managing Southwest airport and facility assets, including longterm airport and facilities planning, development, design and construction. Mr. Cullen, thank you for joining us today. And you are now recognized for your opening statement.

STATEMENT OF PAUL CULLEN, VICE PRESIDENT OF REAL ESTATE, SOUTHWEST AIRLINES

Mr. CULLEN. Thank you. Good afternoon, Chair Sinema, Senator Cruz, and members of the Aviation subcommittee. My name is Paul Cullen and I serve as Vice President of Real Estate for Southwest Airlines. Today, I am excited for the opportunity to share how Southwest continues to partner with airports to invest scores of billions into airport infrastructure. Before the pandemic, from a real estate perspective, anyway, the wind was at our back. We had just launched our inaugural service to Hawaii, and we had recently moved in to brand new facilities in La Guardia and in New Orleans.

Furthermore, we were excited about our upcoming moves into new facilities that were being constructed in airports such as Natural, Salt Lake City, Los Angeles LAX, and Portland, Oregon. Putting aside the projects that were already under construction, we are also actively engaged with our airport partners on future terminal projects, projects that we are still in the planning or concept phase.

In aggregate, those projects total the pipeline of well over \$50 billion, and that is just airports that Southwest serves. When the pandemic hit, passengers essentially disappeared overnight, and the financial gravity of the situation quickly became apparent. At Southwest, our focus immediately turned to two key concerns. Number one, protecting our employees and our customers, and number two, preserving and generating cash. To that second point, I want to express our gratitude to leaders on this committee for the support provided to both airports and airlines during the pandemic to save jobs and support the survival of our industry. Concerning the airlines, we will be forever grateful for Congress—for the Congress's enactment of the payroll support program, or PSP.

Southwest takes considerable pride in never having had a furlough or lay off during our 50 year history. That streak was in serious jeopardy of being broken if not for PSP. So on behalf of my 56,000 fellow employees, I want to extend my heartfelt appreciation for you being there during our darkest hour. I am also happy to report that Southwest did not cease service to any of our domestic airports at any point during the pandemic. In fact, not only do we not cease service, we actually welcomed 18 new airports to our route map, and in doing so, millions more Americans now have access to our low fares and our legendary customer service and hospitality.

Today, passengers are starting to return, but please don't interpret that to mean that everything is back to normal. At Southwest, our revenues remain well below 2019 levels, and we have yet to break even in any month since the pandemic began. Going back to those new airport facilities that were under construction before the pandemic began, those largely continued as planned. And by way of example, earlier this month, we celebrated the on time opening of the new terminal 1.5 at LAX.

Looking to next year, we are particularly excited about the growth opportunities provided by the soon to be completed terminal expansions in Phoenix and in Denver and Las Vegas. And looking into 2023, we are excited about future growth opportunities in Nashville and Kansas City, where multibillion dollar terminal investments are scheduled to complete. Regarding the over \$50 billion pipeline of airport projects that were in the planning or concept phase before the pandemic, progress there understandably paused as airports and airlines wanted to see what the post pandemic environment might look like. But that temporary pause is over, and momentum is starting to pick back up.

Turning quickly to financing, we believe that the current system of funding airport investment through multiple streams of dedicated revenue has been highly successful in meeting airports' infrastructure improvement needs. At Southwest, we strongly believe that increased taxes and fees on passengers does the most harm to price sensitive customers and to smaller markets. Furthermore, we cannot lose sight to the fact that the vast majority of airline consumers today are flying for leisure, and leisure passengers have always been very price sensitive.

Thankfully, similar to the last decade, none of the future projects included in the over \$50 billion pipeline is dependent or contingent upon an increase to the passenger facility charge or PFC. In closing, Southwest Airlines appreciates this committee's commitment to a thriving aviation sector and your recognition of the importance of air travel.

And we thank you for your support you provided to both airports and airlines during the pandemic. Thank you again for the opportunity to testify. I will await your questions. [The prepared statement of Mr. Cullen follows:]

PREPARED STATEMENT OF PAUL CULLEN, VICE PRESIDENT OF REAL ESTATE, Southwest Airlines Co.

Good afternoon Chair Sinema, Senator Cruz, and members of the Aviation Sub-committee. My name is Paul Cullen, and I have the privilege of serving as the Vice President of Real Estate at Southwest Airlines. My Team's responsibility includes activities such as long-term planning and development, facility design and construction, and lease and contract negotiations. I'm excited for the opportunity to share how Southwest is partnering with our airports to invest scores of billions into airport and aviation infrastructure, as we collectively work to keep costs low while we recover from the pandemic.

PRE-PANDEMIC

Before the pandemic, from a real estate perspective, the wind was at our back. We had just launched our inaugural service to Hawaii—a major milestone for us. And we had recently moved into brand new facilities in LaGuardia Airport and Louis Armstrong New Orleans International Airport. Furthermore, we were excited about our upcoming moves into new facilities that were being constructed in air-ports such as Nashville, Salt Lake City, Los Angeles, and Portland, Oregon.

Putting aside those projects that were already under construction, we were also actively engaged with our airport partners on future terminal projects—projects that were still in the planning or conceptual stage. In aggregate, those projects totaled a pipeline of well over \$50 Billion—and that's just at airports served by Southwest Airlines. For reference, this pipeline includes projects such as the new terminal at Pittsburgh International, and the terminal replacement in Burbank/Hollywood, California.

THE PANDEMIC

When the pandemic hit, passengers essentially disappeared overnight. Bustling terminals became ghost towns, and the financial gravity of the situation quickly became apparent. It is certainly no exaggeration to say that the past 15 months (and counting) have been the worst financial period in the history of commercial passenger aviation.

To illustrate the devastating impacts of the pandemic, Southwest Airlines' oper-ating revenues in April 2020 decreased by 92 percent year-over-year. While our financial situation steadily improved since then, it is important to note that our last public earnings release reported that our March 2021 operating revenues were still down 54 percent compared with March 2019.

When the pandemic first hit and we realized the severity of the situation, Southwest's focus quickly turned to two overarching concerns: 1) protecting our Employees and our Customers, and 2) preserving and generating cash.

To that point, I want to express our gratitude to leaders on this Committee for the support provided to both airports and airlines during the pandemic to save jobs and support the survival of our industry. Concerning the airlines, we will be forever grateful for the Congress's enactment of the Payroll Support Program (or PSP). Southwest takes considerable pride in never having had a layoff or furlough during our 50 year

history. That streak was in serious jeopardy of being broken this year if not for PSP. So, on behalf of my 56,000 fellow Employees, I want to extend my heartfelt appreciation for you being there during our darkest hour. I am also happy to report that Southwest did not cease service to any of our domestic airports at any point during the pandemic. In fact, not only did we not cease service, we actually welcomed 18 new airports to our route map. We added smaller markets like Bellingham, Washington; Eugene, Oregon; Bozeman, Montana, and Jackson, Mississippi, while also opportunistically adding larger airports like Chicago O'Hare, Houston Bush Intercontinental, and Miami International Airports.

Growing our network during the pandemic may seem counterintuitive, but demand across our pre-pandemic network was significantly depressed. At these depressed levels of travel demand, leisure travelers have outpaced business travelers, and adding these new airports allowed us to keep our Employees working and our idle aircraft productive, while generating new revenue in many leisure-oriented destinations. And, as an added bonus, millions more Americans now have access to our low fares, and our award winning Customer Service and Hospitality.

Today, passengers are starting to return—still primarily leisure passengers—but please don't interpret that to mean everything is back to normal. At Southwest, our revenues remain at significantly depressed levels relative to 2019, and we have yet to breakeven in any month since the pandemic began. Per data supplied by our trade association—Airlines for America—revenues for the U.S. airlines collectively during the month of May 2021 were down 45 percent from May 2019 levels.

AIRPORT CONSTRUCTION TODAY & LOOKING FORWARD

Going back to those new airport facilities that were under construction before the pandemic—those largely continued as planned and we made considerable progress throughout the past 15 months. In the case of LAX, for example, we just celebrated the opening of the new Terminal 1.5 earlier this month. This was a project that Southwest Airlines led, and it was completed on-time, and well below budget.

Looking to next year, we are particularly excited about the growth opportunities provided by the soon to be completed terminal expansions at Denver International, Phoenix Sky Harbor International, and Las Vegas McCarran International Airports. And looking into 2023, we are excited about future growth opportunities in Nashville and Kansas City, where multi-billion dollar terminal investments are scheduled to come online on-time and on-budget. These are all examples of construction projects occurring right now.

¹ Regarding the \$50-plus billion pipeline of airport projects that were in the planning or concept phase before the pandemic—progress there understandably paused as airports and airlines waited to see what the post-pandemic world might look like. But that temporary pause is over as project teams have been reengaging, and momentum continues to pick up. That's not to say that airports and airlines will agree on everything—like many things—we'll debate "the needs" and "the wants", but we have a long track record of finding a common ground.

Turning quickly to financing, we believe that the current system for funding airport improvements through multiple streams of dedicated revenue has been highly successful in meeting airports' critical infrastructure improvement needs—be those related to safety, security, the environment, the customer experience, or capacity for future growth. We strongly believe that increased taxes and fees on passengers does the most harm to price-sensitive Customers and to smaller markets, such as many of the 18 new airports we have added or announced since the pandemic began.

We cannot lose sight of the fact that that the vast majority of all airline consumers today are flying for leisure or personal reasons, and those types of passengers have always been incredibility price-sensitive and thus the reason for historically low airfares since the pandemic began. Until business traffic returns to prepandemic levels—which no one can confidently predict when that will occur—we expect average airfares to remain relatively low for the foreseeable future. Thankfully, none of the over \$50 billion in the pipeline is dependent or contingent upon an increase in the Passenger Facility Charge (PFC).

I want to again recognize the importance of the financial support that Congress has provided airports and airlines throughout the pandemic, including \$8 billion in untapped airport grants stemming from the American Relief Act, which became law in February. That money has yet to be distributed by the FAA and will go a long way to support the aviation ecosystem as we continue to climb out of the hole created by COVID.

In closing, Southwest Airlines appreciates this Committee's commitment to a thriving aviation sector and your recognition of the importance of air travel. We thank you for the support you've provided to both airports and airlines during this pandemic.

Thank you again for inviting me to testify. I'll await your questions.

Senator SINEMA. Thank you so much. Our third witness is Paul Rinaldi, the 6th President of the National Air Traffic Controllers Association. He served in this role since October 2009 and is currently serving a fourth term as NATCA's President. In this position, he represents nearly 20,000 aviation safety professionals. Mr. Rinaldi, thank you for joining us today. And you are recognized for your opening statement.

STATEMENT OF PAUL RINALDI, PRESIDENT, NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION

Mr. RINALDI. Good afternoon, Chair Sinema, Ranking Member Cruz, and members of the Subcommittee. Thank you for the opportunity to participate in this hearing on behalf of the 20,000 aviation safety professionals that NATCA represents. Over the years, we have highlighted that a stop and go funding stream negatively affects the national airspace system. It undermines the Air Traffic Control Service's staffing, hiring, training, and prevents timely implementation of a long term modernization projects. It also negatively affects preventive maintenance for the FAA's physical infrastructure.

As we were recovering from the long Government shutdown in 2019, we then faced the unthinkable, the COVID-19 pandemic. The pandemic was devastating to aviation systems worldwide, including here in this country and all the things I just mentioned about stop and go funding. But over the last 16 months, the FAA and NATCA, through collaboration, have accomplished some remarkable things to keep the frontline workforce safe and the aviation system up and running during this pandemic. Now, with a vaccinated workforce, traffic levels are quickly returning to roughly 80 percent of prepandemic levels.

So out of the chaos of COVID-19, we have this historic opportunity to invest in our Nation's aviation system, both in the physical infrastructure and technology, to ensure that the United States remains the gold standard in aviation worldwide. Airspace physical infrastructure is aging, and it is in desperate need of attention. Our enroute centers are almost 60 years old. Many of our towers and TRACONs are in need of major repairs and replacement. Many of these facilities have exceeded their life expectancy.

Some of these facilities need critical replacement of systems such as roofs, windows, HVAC systems, elevators, and plumbing. For example, at Dallas Fort Worth International Control Tower, there are several areas where the drywall is crumbling and falling apart due to water leaks that have been repaired for over the years. In the same facilities, several of the restroom fixtures no longer work and are leaking. This building frequently does not have hot water.

are leaking. This building frequently does not have hot water. Additionally, the West Tower at Dallas Fort Worth has large gaps in the foundation of the building, which allows rodents to get into the building and nest. More examples at Phoenix Sky Harbor Air Traffic Control Tower, the elevator fails more than once per month, leading to frequent outages. Requiring controllers to climb up over 20 flights of stairs to report for duty in a tower cab is just completely unacceptable. Additionally, at this facility, the countertops in the operational area are falling apart. The staff has improvised with the solution of duct tape and pool noodles to cover sharp edges of the countertops to prevent injury and clothing being torn. At Falcon Field in Mesa, Arizona, this facility has a serious roof issue, an elevator that is in disrepair because the parts are no longer made, has an air conditioning heating problem, and ongoing plumbing issues. These are just a few examples of the aging infrastructure that is in desperate need of attention.

As far as technology infrastructure or next gen, NATCA has collaborated with the FAA for over 12 years in modernizing and making the system safer. We have many successes, and we continue to anticipate to have many more. Moving forward in new technology, our top priorities are maintaining and upgrading our automation platforms, including ERAM for enroute, TAMRA for terminals, ATOP which is our oceanic procedures.

Some of our other priorities is to find a replacement for micro-EARTS systems, enhance our long range radar service, a new voice communication system, and support tools in automation and decisionmaking.

Again, I thank you for the opportunity to participate today, and I look forward to your questions and a continued dialog to improve the FAA's infrastructure.

[The prepared statement of Mr. Rinaldi follows:]

PREPARED STATEMENT OF PAUL RINALDI, PRESIDENT, NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION, AFL-CIO (NATCA)

Thank you for the opportunity to testify on behalf of the National Air Traffic Controllers Association, AFL–CIO (NATCA) at today's hearing titled "Aviation Infrastructure for the 21st Century." NATCA is the exclusive representative for nearly 20,000 employees, including the Federal Aviation Administration's (FAA) air traffic controllers, traffic management coordinators and specialists, flight service station air traffic controllers, staff support specialists, engineers and architects, and other aviation safety professionals, as well as Department of Defense (DOD) and Federal Contract Tower (FCT) air traffic controllers.

I. Executive Summary

As NATCA has been highlighting for years, a stop-and-go funding stream negatively affects all aspects of our National Airspace System (NAS). It undermines air traffic control services, staffing, long-term modernization projects, preventative maintenance, and ongoing modernization to the physical infrastructure. It also slows the hiring and training process while preventing the timely implementation of modernization programs and the integration of new users into the system.

Without a stable, predictable funding stream, the FAA will be hard-pressed to maintain pre-pandemic capacity, let alone modernize the physical and technological infrastructure of the system while expanding it for new users including unmanned aircraft systems, commercial space launches, and supersonic aircraft. NATCA's testimony will focus on NATCA's greatest priorities in the areas of physical infrastructure as well as the modernization and technological needs of the system.

The FAA's physical infrastructure needs immediate attention and upgrading our aging air traffic control (ATC) facility infrastructure is a top priority for NATCA. The FAA's Air Route Traffic Control Centers (ARTCC) are almost 60 years old, and many of the towers and Terminal Radar Approach Control facilities (TRACONS) are in desperate need of repair or replacement. Many of these facilities have exceeded their life expectancy, while others need replacement of critical physical infrastructure systems including roofs, windows, HVAC systems, elevators, and plumbing. In addition, NATCA and our front-line controller members have been collabo-

In addition, NATCA and our front-line controller members have been collaborating with the FAA to implement NextGen modernization programs for the past 12 years. We have had many successes and we anticipate many more. Our top priorities are to maintain and upgrade our foundational air traffic automation platforms in our en route and terminal facilities that deliver flight plan and surveillance information to controllers on a real-time basis. Our other top priorities include replacing the antiquated automation platform that supports Alaska, Hawaii, Puerto Rico, and Guam as well as the continued operability and future enhancement of long-range radar surveillance.

Our other technological modernization priorities are in the areas of communications, notices to airmen, which disseminate critical safety information to airspace users, support tools in automation, and traffic management tools for existing users and new entrants including UAS and commercial space.

We now have an historic opportunity to invest in our Nation's aviation system, both its physical infrastructure and technology, to ensure the NAS remains the gold standard around the world.

II. NATCA Urges Support for a Robust Funding Authorization for Air Traffic Control Facility Infrastrucure

The FAA operates more than 300 air traffic control facilities of varying ages and conditions all across the United States. The FAA's 20 Air Route Traffic Control Centers (ARTCCs) located in the continental United States were built in the 1960s and are almost 60 years old. The FAA's large, stand-alone Terminal Radar Approach Control facilities (TRACONs) are, on average, more than 25 years old. In addition, the FAA has 132 combined TRACON/Towers, which average about 35 years are old. Finally, the FAA has another 131 stand-alone towers, which average more than 30 years old. Many of these facilities have exceeded their life expectancy. Please see the Appendix for a breakdown of the ages of the FAA's air traffic facilities. Many of these facilities have identifiable defects that require immediate attention.

Many of these facilities have identifiable defects that require immediate attention. These issues range from workplace safety issues to airspace safety concerns. Some of these issues have led to periodic airspace shutdowns and many others lead to health and safety concerns for the workforce. When major systems fail or facilities have integrity problems, it can lead to a less efficient airspace. Although the FAA has begun the process of addressing its aging infrastructure through a combination of realignments, sustaining and maintaining some facilities, and replacing a handful of others, that process has been slow and hampered by the stop-and-go funding stream.

NATCA believes that over one-third of FAA's facilities have only minor concerns or no concerns. For the most part, these facilities need only maintenance of their current physical infrastructure in order to continue to provide a safe environment for the workforce and a functional building to perform the FAA's mission.

However, on the other end of the spectrum, there are roughly 10 percent of facilities that are of our highest concern and another approximately 20 percent of facilities that have major concerns regarding overall facility condition. To this end, NATCA has identified seven general areas of facility infrastructure needs across the FAA: building integrity, HVAC conditions, restrooms, elevator/stairs, building security, lighting, and OSHA issues.

1. Building Integrity

NATCA defines building integrity as the condition of the building's roof, windows, doors, and ceiling. NATCA believes that over 25 percent of all facilities have an immediate need regarding building integrity.

For example, at David Wayne Hooks Air Traffic Control Tower (ATCT, DWH) near Houston, the tower cab roof has continued to leak water into the inside of the tower cab windows for days after every significant rainstorm. It is unknown where this water drains, but it goes into the area under the consoles where the wiring is located. Since 2011, at least five of the 12 tower cab windows have rivulets of water going down them after moderate to heavy rainstorms. Further, the tower cab infrastructure cannot support double shades for the windows. The building is not secure against small pests and rodents. Multiple times each year employees will encounter snakes, large spiders, and mice inside the building. The tower cab roof access ladder is dangerous as well.

At Falcon Field ATCT (FFZ), in Mesa, Ariz., the roof lifts off the building when the wind is at or above 15 knots. The building shakes, the floor vibrates, and controllers can hear the room moving.

At Peoria ATCT (PIA) in Illinois, when it rains, water leaks through the ceilings and down the walls. Rainwater splashes over and around the windows to the point that controllers use towels to absorb it. Although the FAA has patched the roof, the water finds its way inside. Almost every room and hallway in the basement shows signs of water damage, including standing water in many locations. In the basement, there is asbestos-laden piping insulation that has degraded and crumbles from the ceiling. Electrical boxes and extension cords in the basement needed for operation of the lights are exposed to standing water and water leaks. Bird carcasses are not uncommon in a room regularly used by employees. The roof of the mechanical room is settling, creating gaps for water to find its way inside. Even after roof patching and asbestos containment measures, more leaks have developed on a floor with many sensitive electronics that are essential for providing air traffic control services.

These types of building integrity issues are not limited to the smaller air traffic facilities. For instance, at Newark Liberty International Airport (EWR), there are leaks in the roof of the tower and the main building. There are buckets in the hallways to catch the water falling, which constitutes hazards for walking, the break room windows leak, and sheetrock is crumbling.

2. HVAC Systems

NATCA defines HVAC systems as air conditioner, heater, and exhaust vents. Approximately one-third of all facilities have significant HVAC system issues. NATCA has identified roughly 30 facilities of the highest concern for HVAC system condition and an additional 75 with HVAC systems as a major concern.

For example, at Wilmington International Airport ATCT (ILM) in Delaware, the HVAC unit breaks several times a year causing the temperature inside the tower to rise to almost 90 degrees during the summer and drop to the mid-50s in the winter. Even when operational, the system fails to hold a consistent temperature, requiring controllers to alternate between employing fans or multiple space heaters, which pose their own hazards in the operational area. At McClellan-Palomar ATCT (CRQ) in Carlsbad, Calif., the air conditioner unit

At McClellan-Palomar ATCT (CRQ) in Carlsbad, Calif., the air conditioner unit was recently replaced. However, jet fuel exhaust from the fixed base operator at the base of the tower and the terminal ramp enters the tower stairwell through the unprotected fire suppression exhaust system. This fills the tower cab, offices in the tower, and tower break rooms with the smell of jet fuel. Floating particulates inside the tower cab often gather on the tower shades, creating visibility issues. When employees or contractors attempt to clean the shades, the particulates leave permanent scratches on the shades. The air intake in the center of the tower cab is caked with dirt and debris.

At Seattle-Tacoma International Airport ATCT (SEA), controllers in the tower cab and on the 12th floor periodically experience headaches and dizziness as a result of the strong smell of jet fuel.

3. Restroom Conditions

Restroom conditions include fixtures, stalls, door locks, and plumbing. NATCA has the highest concern about restroom conditions at more than 20 facilities. We consider about 50 facilities' restroom conditions a major concern. Based on our observations, over 20 percent of all facilities have serious issues regarding their restroom conditions.

For example, at Buchanan Field ATCT (CCR) in Concord, Calif., there is only one toilet. When testers arrive at the facility to perform random drug and alcohol screenings of employees, the restroom is unavailable for any other purposes for periods of approximately three hours.

ods of approximately three hours. At Washington ARTCC (ZDC) in Leesburg, Va., there are consistent plumbing issues. As a result of issues with the main plumbing stack identified by a plumbing contractor, the men's restroom in one wing of the building has the constant smell of sewage. The main women's restroom in the facility has been closed several times because of the similar sewage smell. Since at least 2006, the basement men's restroom sinks clog regularly. Additionally, when the town of Leesburg had a water main break in 2020, ZDC lost the use of all water and restrooms for multiple days and restroom trailers were brought on site. Although that issue was corrected, since then, ZDC's water pressure has significantly decreased, causing additional plumbing issues.

At Jacksonville International Airport ATCT (JAX), there is sewage smell in the main men's restroom at least once a month. The s-trap dries up and allows the gas to back up into the restroom. The women's primary restroom had a sewer backup earlier this year and flooded the women's restroom with sewage. The tower cab restroom and tech ops restroom have similar sewage smells.

4. Elevators/Stairs

NATCA defines elevator and stairs problems as those affecting elevator panels, emergency phones, stair lighting, stair steps, and head clearance. NATCA has identified nearly 20 facilities where either elevators or stairs are of the highest concern. NATCA has identified more than 40 additional facilities with elevators/stairs as a major concern. Approximately 20 percent of facilities have significant issues regarding their elevators or stairs.

For example, at Fayetteville Regional Airport ATCT (FAY) in North Carolina, the elevator has *never* been operational.

At Memphis International Airport ATCT (MEM), like many towers, there is a single elevator that accesses the tower cab. The elevator breaks down frequently. Multiple employees have been trapped in the elevator on different occasions. When the elevator is non-operational, the only option is a long, 330-foot vertical climb up the stairs, which is a particular problem in the summer because the stairs are not climate controlled.

5. Building Security

NATCA has identified over 20 facilities for which we have the highest concern for the building's security. We identified more than 40 additional facilities where building security is a major concern. Just under approximately 20 percent of all facilities have significant building security concerns.

For example, at Juneau International Airport ATCT (JNU) in Alaska, the cipher lock system is provided by the city and it automatically unlocks all of the doors in the event of a power outage. Additionally, tower access is located in the main airport lobby area, outside of TSA security, meaning anyone could come into the control tower. When employees relayed their concern to the airport, they said that is by design so they could use the control tower stairwell as a fire exit. Additionally, the tower security camera fails often and the door intercoms do not work well.

At General Mitchell International Airport (MKE), in Milwaukee, the front gate to the employee parking lot malfunctions frequently. On many occasions, the gate is left open and there have been several instances of unauthorized vehicles driving into the lot, posing security concerns.

6. Lighting

NATCA is aware of internal and external lighting condition issues at several facilities. NATCA has identified three facilities where lighting is at the highest concern level. We also have identified more than 20 additional facilities in which lighting is a major concern. Approximately 8 percent of facilities have significant lighting concerns.

For example, at Dallas-Fort Worth International Airport ATCT (DFW), NATCA identified lighting issues in the tower cab. DFW has focused cannister lights for overhead lighting with shielding panels that should be able to control both the intensity and coverage area for each individual light. The placement of these cannister lights occurred when the towers were built more than 25 years ago. Their placement was based on the equipment and operational practices in use at that time.

A great deal has changed since then, but the lighting system and associated issues have not. There are several areas where controllers must supplement the lighting system with hand-held flashlights due to the deficiencies in lighting coverage. The under-counter lighting has similar issues, and is also prone to breaking due to the many space heaters that get stored beneath the countertops as well as deficiencies in the quality of installation. In the emergency stairwells, there are frequent lighting outages due to the reduced visibility.

7. OSHA Concerns

NATCA defines OSHA concerns as including noise, water quality, indoor air quality, and appropriate number of emergency exits. There are approximately 25 facilities that NATCA has identified as having the highest concern for OSHA issues. We identified more than 60 additional facilities at which OSHA issues are a major concern. Approximately 30 percent of all facilities have significant OSHA concerns.

For example, at the Great Lakes Regional Office in Des Plaines, Ill. the water has had high lead readings for three years requiring employees to use bottled water for drinking.

At San Diego International Airport (SAN), approximately 10 years ago, it was discovered that the drinking water was not potable. The FAA has attempted various fixes over the years, but has been unsuccessful. Today, the FAA is forced to provide hand sanitizer stations because the water is not safe enough for hand washing, but the dishwasher and showers are somehow considered acceptable. Drinking water is provided via a bottled water contract, however the water dispensers are not cleaned or tested regularly. And, these water bottles must be carried up the tower steps by the controllers, leading to risk of injury.

At Pittsburgh International Airport ATCT (PIT), when there is heavy precipitation, water leaks into the facility near electrical fixtures. Ultimately, it pools on the floor creating multiple safety hazards. Portions of the break room ceiling as well as restroom ceiling are crumbling and falling near employees. At El Paso International Airport ATCT (ELP) in Texas, there are several occupa-

At El Paso International Airport ATCT (ELP) in Texas, there are several occupational safety and health concerns. Several times in recent years water lines to the tower cab have failed leaving controllers without access to fresh, clean drinking water. The latest occurrence was earlier this year and lasted for about two weeks. The elevator is of equal concern. It has been failing at an alarming rate over the past few years and has left multiple controllers stranded inside of it for several hours. ELP has had to call the local fire department and the contractor responsible for the maintenance and repair of the elevator to help free stuck employees. The building itself contains both friable and non-friable asbestos and there have been several occurrences where work projects have been suspended upon its discovery. A simple carpet installation was delayed for over 18 months due to finding non-friable asbestos in the mastic of the floor tiles underneath the existing carpeting.

In summary, aviation is a critical part of our Nation's infrastructure, and the repair or replacement of aging air traffic control facilities will be essential to allow the United States to maintain the safest, most efficient airspace system in the world. NATCA strongly supports legislative efforts to bring air traffic control facilities up to standard. President Biden has also called on Congress to invest in upgrades to FAA assets to ensure safe and efficient air travel and as part of his American Jobs Plan. Most recently, he indicated his support for modernizing the air traffic control system in his FY 2022 budget proposal. Providing additional funding for the repair or replacement of aging air traffic control facilities will result in more jobs for the American people and deliver benefits to our struggling economy and the flying public alike.

III. Modernization and Maintenance of Key Programs and Platforms

Modernization to air traffic control technology also has been hampered as a result of an unstable, unpredictable funding stream, which has jeopardized the safety and efficiency of the NAS. To that end, NATCA believes that the following platforms and programs are the most critical to maintaining and upgrading the system. We have sorted these platforms and programs into five tiers based on their relationship and necessity to the continued safe and efficient operation of the NAS.

1. Tier 1 Funding Priority—Automation Platforms and Surveillance

En Route Automation Modernization (ERAM), Terminal Automation Modernization Replacement (TAMR), and Advanced Technologies & Oceanic Procedures (ATOP) are all automation platforms that deliver flight plan and surveillance information to air traffic controllers on a real-time basis. These platforms are the foundational systems that keep our NAS operating safely day and night. The FAA must be able to sustain and upgrade each of these automation platforms. For instance, the base equipment (hardware, monitors, and servers) used to operate ERAM will reach its end of lifecycle (*i.e.*, the manufacturer-determined date upon which the equipment will need to be replaced based on its anticipated use) by 2025 and NATCA is concerned with funding constraints that could jeopardize the program. These systems operate 24 hours a day, 7 days a week and, therefore, the hardware must be monitored and replaced at scheduled intervals.

Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) is the automation platform that supports Guam, Puerto Rico, Hawaii, and Alaska. The FAA has identified the need to replace Micro-EARTS with ERAM and/or TAMR. These replacement programs will improve NAS interoperability and reduce cost by standardizing the training, maintenance, and development efforts by bringing these facilities under the NextGen automation umbrella.

Long-Range Radar services for both en route and terminal environments remain critical to the safe and efficient operation of the NAS. Even with the wide deployment of ADS-B Out, there is still a need for non-cooperative surveillance tools such as Long-Range Radar services, which allow controllers to see aircraft that are not ADS-B Out equipped. These services are critical to controllers fulfilling their safety functions.

2. Tier 2 Funding Priority—Communications

Voice over Internet Protocol Communications Enterprise (VoICE) is the program and new equipment that will replace the aging (physical) communications technology that controllers use to communicate with pilots and other air traffic facilities. The current equipment is outdated, is approaching end of lifecycle on multiple systems, and replacement parts are getting harder to acquire because the existing systems are no longer supported by their manufacturers. Time Division Multiplexing (TDM)—to—Internet Protocol (IP) (TDM-to-IP) is the program that will upgrade all copper wiring infrastructure with fiber optic cable

Time Division Multiplexing (TDM)—to—Internet Protocol (IP) (TDM-to-IP) is the program that will upgrade all copper wiring infrastructure with fiber optic cable wiring. This program is critical because major U.S. telecommunications carriers have communicated their intention to discontinue current TDM-based services (supported by the current copper wiring) as early as this year. The FAA is highly dependent on these services to receive and transmit information at approximately 6,000 sites. Any discontinuation or disruption of TDM services without first transitioning to IP communication services would lead to potential safety risks and/ or delays in air traffic services.

Operational and Supportability Implementation System (OASIS II) is a critical piece of the communications system that is used at all 17 Flight Service Stations (FSS) throughout Alaska. OASIS II must be maintained until a replacement system can be implemented. OASIS II is used by Flight Service Air Traffic Control Specialists in Alaska to provide weather briefing and flight planning services to general aviation pilots. However, OASIS II is beyond its end of lifecycle and is beginning to experience system failures.

3. Tier 3 Funding Priority—NOTAMS

The Federal Notice to Airmen (NOTAM) System (FNS) provides critical information to controllers and pilots about issues in the NAS, for which timely knowledge of the issue is essential for personnel concerned with flight operations. NOTAM modernization is an FAA Top 5 safety priority and requires appropriate funding levels to sustain and upgrade the system.

4. Tier 4 Funding Priority—Support Tools in Automation

The *legacy weather systems* must be maintained until NextGen Weather Processor (NWP) can be implemented. NWP is a program that will consolidate multiple weather systems into one, while also incorporating new weather products. The consolidated program will allow air traffic managers to evaluate weather effects and plan initiatives. 

Funding for legacy Information Display Systems must be maintained until the *Enterprise Information Display Systems (E-IDS)* can be deployed in approximately 2025–27. E-IDS will provide a wide variety of information to air traffic controllers such as current weather, airspace delegation, access to approach plates, NOTAMS, SIGMETS, flight route verification and aircraft information. However, FAA facilities currently utilize several different systems that are beyond the "end of lifecycle" stage and replacement parts are becoming harder to acquire.

5. Tier 5 Funding Priority—Decision Support Tools and Commercial Space Operations

Traffic Flow Management System (TFMS), which is a strategic planning tool for identifying and managing air traffic flow constraints in NAS related to congestion in certain geographical areas, must be maintained until a replacement system can be implemented. TFMS processes all available data sources such as flight plan messages, flight plan amendment messages, and departure and arrival messages. TFMS identifies constraints such as a weather event or major sporting event and helps the FAA plan for and execute that plan to minimize its negative effects on the NAS. However, due to contractual issues related to a recent court ruling that will limit new enhancements to the system, TFMS will need to be replaced with a new system to ensure minimal disruption to the NAS. Maintaining and upgrading TFMS will be necessary to Commercial Space operations. By providing the FAA with these critical decision support tools, the agency can minimize the disruption to the NAS during the launch and scheduled re-entry of Commercial Space vehicles, rather than segregating approximately 1,000 square miles of airspace with temporary flight restrictions for each launch and recovery.

Funding must be maintained for the development, testing, and deployment of *Terminal Flight Data Manager (TFDM)*, which will provide improvements to flight data coordination and management for air traffic users, as well as enhanced surface traffic flow management capabilities. Among other things, TFDM will replace ATCT paper flight strips with electronic flight strips, provide automation for electronic flight and airport data management, and interface with other NAS systems to share electronic flight data. In order for TFDM to deliver its proposed benefits for air traffic controllers and the industry, the FAA must maintain the original list of facilities scheduled to get electronic flight strips. NATCA is concerned that any decreased functionality or reduction to that list of facilities may affect the improvements that will be relied upon by other NAS systems.

IV. FAA Would Benefit from Reformed Procurement System

NATCA continues to urge Congress and the FAA to take a close look at the FAA's procurement rules, which are fundamentally flawed in regard to planning and funding for technology and modernization programs, and to consider further procurement reform for the FAA. Twenty-five years ago, the FAA Reauthorization Act of 1996 (Pub. L. 104–264) included procurement reform, which granted the FAA the authority to create its own acquisition management system and adopt its own procurement rules to allow the FAA to be more nimble in this area. However, in practice, the FAA merely created a set of procurement rules that mirror the rest of the Federal government, which defeated the purpose of the reform.

V. Conclusion

NATCA believes that we must take this opportunity to secure the critical funding necessary to maintain, repair, and replace the FAA's ailing physical infrastructure, as well as to modernize the NAS to meet both today's needs and those of the future. Without these investments, the FAA will be hard-pressed to maintain pre-pandemic air traffic capacity, let alone modernize the system or expand it for new users such as UAS and commercial space operators. NATCA thanks Chair Sinema and Ranking Member Cruz, as well as Chair Cant-well and Banking Member Wicker for the opportunity to offer testimony on these

well and Ranking Member Wicker, for the opportunity to offer testimony on these critical issues.

Appendix

AIR TRAFFIC CONTROL FACILITY AGE

FAA's Air Route Traffic Control Centers (ARTCCs)

Code	Facility Name	Age
ZAB	Albuquerque Air Route Traffic Control Center	58
ZAN	Anchorage Air Route Traffic Control Center	52
ZTL	Atlanta Air Route Traffic Control Center	61
ZBW	Boston Air Route Traffic Control Center	58
ZAU	Chicago Air Route Traffic Control Center	59
ZOB	Cleveland Air Route Traffic Control Center	60
ZDV	Denver Air Route Traffic Control Center	59
ZFW	Fort Worth Air Route Traffic Control Center	59
ZHU	Houston Air Route Traffic Control Center	56
ZID	Indianapolis Air Route Traffic Control Center	59
ZJX	Jacksonville Air Route Traffic Control Center	60
ZKC	Kansas City Air Route Traffic Control Center	59
ZME	Memphis Air Route Traffic Control Center	59
ZMA	Miami Air Route Traffic Control Center	65
ZMP	Minneapolis Air Route Traffic Control Center	59
ZNY	New York Air Route Traffic Control Center	58
ZLA	Los Angeles Air Route Traffic Control Center	58
ZOA	Oakland Air Route Traffic Control Center	61
ZLC	Salt Lake Air Route Traffic Control Center	59
ZSE	Seattle Air Route Traffic Control Center	59
ZDC	Washington Air Route Traffic Control Center	58
	Average Age:	58.9

FAA's Large TRACONs

Code	Facility Name	Age
A80	Atlanta TRACON	20
A90	Boston TRACON	17
C90	Chicago TRACON	25
D10	Dallas—Ft Worth TRACON	25
D01	Denver TRACON	29
JCF	High Desert TRACON	60
190	Houston TRACON	8
N90	New York TRACON	43
NCT	Northern California TRACON	19
P31	Pensacola TRACON	12
PCT	Potomac TRACON	19
S46	Seattle TRACON	17
SCT	Southern California TRACON	28
T75	St Louis TRACON	19
	Average Age:	24.4

Core 30 Airport Towers and Tower/TRACONs

ATL	Atlanta Tower	15
BWI	Baltimore Tower	71
BOS	Boston Tower	48
CLT	Charlotte Tower	43
ORD	Chicago O'Hare Tower	25
ORDA	O'Hare North Tower	12
ORDB	O'Hare South Tower	6
DFW	Dallas Fort Worth Tower Center	47
DFWA	Dallas Fort Worth Tower MA2	27
DFWB	Dallas Fort Worth Tower MB2	27
DEN	Denver Tower	26
DTW/D21	Detroit Tower & TRACON	29
IAD	Dulles Tower	14
FLL	Fort Lauderdale Tower	30
HNL	Honolulu Tower	20
IAH	Houston Intercontinental ATC Tower	24
JFK	Kennedy Tower	27
LGA	La Guardia Tower	11
LAS/L30	Las Vegas Tower & TRACON	5
LAX	Los Angeles Tower	25
MEM/M03	Memphis Tower & TRACON	10
MIA	Miami Tower	19
MDW	Midway Tower	24
MSP/M98	Minneapolis Tower & TRACON	26
EWR	Newark Tower	18
MCO	Orlando Tower	19
PHL	Philadelphia Tower	40
PHX/P50	Phoenix Tower & TRACON	14
SLC/S56	Salt Lake City Tower & TRACON	22

Core 30 Airport Towers and Tower/TRACONs-Continued

SAN	San Diego Tower	25
SFO	San Francisco Tower	5
SEA	Seattle Tower	17
TPA	Tampa Tower	49
DCA	Washington National Tower	24
	Average Age:	24.8

	-	
ABI	Abilene Tower	9
ADS	Addison Tower	16
CAK	Akron-Canton Tower	59
ALB	Albany Tower	22
ABQ	Albuquerque Tower	27
AGC	Allegheny Tower	79
ABE	Allentown Tower	26
AFW	Alliance Tower	29
AMA	Amarillo Tower	62
ANC/A11	Anchorage Tower & TRACON	46
ADW	Andrews Tower	55
ARB	Ann Arbor Tower	48
AVL	Asheville Tower	40
ASE	Aspen Tower	48
ACY	Atlantic City Tower	34
AGS	Augusta Tower	46
ARR	Aurora Tower	45
AUS	Austin Tower	23
BFL	Bakersfield Tower	46
BGR	Bangor Tower	25
BAD	Barksdale RAPCON	53
BTR	Baton Rouge Tower	39
BPT	Beaumont Tower	17
BIL	Billings Tower	15
BGM	Binghamton Tower	70
BHM	Birmingham Tower	20
BIS	Bismarck Tower	48
BFI	Boeing Tower	60
BOI	Boise Tower	8
LOU	Bowman Tower	58
POC	Brackett Tower	56
BDL/Y90	Bradley Tower & TRACON	22
BJC	Broomfield Tower	9
BUF	Buffalo Tower	27
BUR	Burbank Tower	30
BTV	Burlington Tower	32
CDW	Caldwell Tower	43
CMA	Camarillo Tower	30
CPR	Casper Tower	67

Remaining ATC Towers/TRACONs

Remaining ATC Towers/TRACONs—Continued

CID	Cedar Rapids Tower	40
APA	Centennial Tower	36
F11	Central Florida TRACON	38
CMI	Champaign Tower	61
CHS	Charleston Tower (N.C.)	42
CRW	Charleston Tower (WVa.)	74
CHA	Chattanooga Tower	39
PWK	Chicago Executive Tower	24
CNO	Chino Tower	28
CVG	Cincinnati Tower	25
CKB	Clarksburg Tower	35
CLE	Cleveland Tower	6
COS	Colorado Springs Tower	42
CAE	Columbia Tower	53
CMH	Columbus Tower (Ohio)	17
CSG	Columbus Tower (Georgia)	30
CCR	Concord Tower	60
CRP	Corpus Christi Tower	19
MIC	Crystal Tower	58
DAL	Dallas Love Tower	29
DAY	Dayton Tower	10
DAB	Daytona Beach Tower	35
DVT	Deer Valley Tower	14
PDK	DeKalb—Peachtree Tower	33
DSM	Des Moines Tower	46
MKC	Downtown Tower (Kansas City)	34
CPS	Downtown Tower (St. Louis)	13
DLH	Duluth Tower	70
DPA	Dupage Tower	24
EMT	El Monte Tower	48
ELP	El Paso Tower	54
ELM	Elmira Tower	61
OMA	Eppley Tower	46
ERI	Erie Tower	64
EUG	Eugene Tower	34
EVV	Evansville Tower	45
FAI	Fairbanks Tower	44
FFZ	Falcon Tower	37
FAR	Fargo Tower	42
FRG	Farmingdale Tower	38
FAY	Fayetteville Tower	48
FNTA	Flint Tower	46
FLO	Florence Tower	47
FCM	Flying Cloud Tower	58
FXE	Fort Lauderdale Executive Tower	7
RSW	Fort Myers Tower	39
FSM	Fort Smith Tower	22
FWA	Fort Wayne Tower	14

Remaining ATC Towers/TRACONs—Continued

FAT	Fresno Tower	59
SEE	Gillespie Tower	59
GCN	Grand Canyon Tower	18
GFK	Grand Forks Tower	34
GRR	Grand Rapids Tower	57
MWH	Grant County Tower	22
GTF	Great Falls Tower	57
GRB	Green Bay Tower	48
GSO	Greensboro Tower	47
GSP	Greer Tower	59
GPT	Gulfport Tower	9
BED	Hanscom Tower	18
MDT	Harrisburg Intl Tower	32
HWD	Hayward Tower	60
HLN	Helena Tower	25
HIO	Hillsboro Tower	55
ITO	Hilo Tower	42
HOU	Hobby Tower	21
HCF	Honolulu CERAP	21
DWH	Hooks Tower	42
HTS	Huntington Tower	60
HSV	Huntsville Tower	13
IND	Indianapolis Tower	15
ISP	Islip Tower	10
JAN	Jackson Tower	58
JAX	Jacksonville Tower	53
SNA	John Wayne Tower	39
JNU	Juneau Tower	35
AZO	Kalamazoo Tower	7
MCI	Kansas City Tower	25
TYS	Knoxville Tower	35
LFT	Lafayette Tower (Louisiana)	46
LAF	Lafayette Tower (Indiana)	35
LCH	Lake Charles Tower	60
NEW	Lakefront Tower	34
LAN	Lansing Tower	63
LEX	Lexington Tower	52
LNK	Lincoln Tower	48
LIT	Little Rock Tower	20
LVK	Livermore Tower	47
LGB	Long Beach Tower	53
GGG	Longview Tower	44
LBB	Lubbock Tower	45
MSN	Madison Tower	53
HEF	Manassas Tower	29
MHT	Manchester Tower	15
MFD	Mansfield Tower	47
OGG	Maui Tower	33
		-

Remaining ATC Towers/TRACONs—Continued

FTW	Meacham Tower	56
NMM	Meridian TRACON	60
MRI	Merrill Tower	22
MAF	Midland Tower	38
MKE	Milwaukee Tower	35
MOB	Mobile Tower	32
MSY	Moiusantt Tower (New Orleans)	26
MLU	Monroe Tower	26
MRY	Monterey Tower	59
MYF	Montgomery Tower (San Diego)	56
MGM	Montgomery Tower (Alabama)	25
MMU	Morristown Tower	61
MKG	Muskegon Tower	54
MYR	Myrtle Beach Tower	40
ACK	Nantucket Tower	61
APC	Napa Tower	57
BNA	Nashville Tower	40
ORF	Norfolk Tower	28
VGT	North Las Vegas Tower	19
PNE	Northeast Philadelphia Tower	48
OAK	Oakland Tower	8
OKCA	Oklahoma City Tower	54
R90	Omaha TRACON	56
ONT	Ontario Tower	35
ORL	Orlando Executive, FL ATCT Tower	27
PAE	Paine Tower	18
PBI	Palm Beach Tower	7
PSP	Palm Springs Tower	8
PAO	Palo Alto Tower	53
\mathbf{CRQ}	Palomar Tower	48
PSC	Pasco Tower	48
PHF	Patrick Henry Tower	14
PNS	Pensacola Tower	26
PIA	Peoria Tower	62
PIT	Pittsburgh Tower	36
PTK	Pontiac Tower	24
PDX	Portland Tower (Ore.)	23
PWM	Portland Tower (Maine)	47
P80	Portland TRACON (Ore.)	63
POU	Poughkeepsie Tower	48
PRC	Prescott Tower	33
PVD	Providence Tower	31
PUB	Pueblo Tower	56
MLI	Quad City Tower	47
RDU	Raleigh-Durham Tower	34
RDG	Reading Tower	55
RHV	Reid-Hillview Tower	54
RNO	Reno Tower	11

Remaining ATC Towers/TRACONs—Continued

RIC	Richmond Tower	17
RVS	Riverside Tower	56
ROA	Roanoke Tower	17
ROC	Rochester Tower (N.Y.)	38
RST	Rochester Tower (Minn.)	61
RFD	Rockford Tower	63
ROWA	Roswell Tower	23
SMF	Sacramento Tower	54
MBS	Saginaw Tower	56
SATA	San Antonio Tower	35
SJC	San Jose Tower	27
SJU	San Juan Tower	26
SFB	Sanford Tower	24
SBA	Santa Barbara Tower	23
SMO	Santa Monica Tower	55
SRQ	Sarasota Tower	3
SAV	Savannah Tower	16
SDL	Scottsdale Tower	32
SHV	Shreveport Tower	45
FSD	Sioux Falls Tower	55
SUX	Sioux Gateway Tower	29
STS	Sonoma Tower	59
SBN	South Bend Tower	41
SUS	Spirit Tower	35
GEG	Spokane Tower	14
SGF	Springfield Tower	43
SPI	Springfield Tower	41
STL	St Louis Tower	22
FPR	St Lucie Tower	30
STP	St Paul Tower	22
PIE	St Petersburg Tower	27
STT	St Thomas Tower	37
SDF	Standiford Tower	23
SCK	Stockton Tower	64
SYR	Syracuse Tower	22
TLH	Tallahassee Tower	25
TMB	Tamiami Tower	53
HUF	Terre Haute/Hulman ATCT/TRACON	64
TEB	Teterboro Tower	47
TOL	Toledo Tower	66
TOA	Torrance Tower	60
TVC	Traverse City Tower	8
TRI	Tri-Cities Tower	35
TUS	Tucson Tower	4
U90	Tucson TRACON	41
TUL	Tulsa Tower	63
TWF	Twin Falls Tower	46
VNY	Van Nuys Tower	54

Remaining ATC Towers/TRACONs—Continued

VRB	Vero Beach Tower	18
ACT	Waco Tower	39
ALO	Waterloo Tower	34
HPN	Westchester Tower	52
ICT	Wichita Tower	40
AVP	Wilkes-Barre Tower	9
YIPA	Willow Run Tower	34
ILM	Wilmington Tower	34
ILG	Wilmington Tower	20
YNG	Youngstown Tower	51
	Average Age:	38.1

Senator SINEMA. Thank you so much. Now, before I introduce our next witness, I would like to recognize our Ranking Member of the Subcommittee, Senator Cruz. Senator Cruz, you are recognized for your opening statement.

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

Senator CRUZ. Thank you, Madam Chair. It is good to be with you. Thank you for holding today's hearing on aviation infrastructure for the 21st century. Over a year ago, we held the first congressional hearing on the role of global aviation in containing the spread of what was then a relatively new infectious disease, COVID-19.

At that time, none of us could have imagined the ultimate scope of this public health emergency, how quickly it would snowball into a crisis, and the pain it would inflict upon the United States, including our aviation system.

At the lowest point last year, barely 100,000 passengers were flying each day, compared with over 2 million at the same time the year before. To address the crisis at hand, Congress acted quickly through the CARES Act to provide relief to the nation, including the aviation sector, and to preserve millions of jobs, and to ensure that when America got back up and running, it could do so without delay. What a difference a year makes.

Today, more than half of the U.S. population has received at least one dose of COVID vaccine. More than 60 percent of adults have received at least one dose. And more than 40 percent have been fully vaccinated. And it shows. Get on an airplane going almost anywhere in the country, and it is highly likely that the plane will be almost completely full, bookings are up, losses are down, and airports have started to hum with activity once again. This is good news and deserves to be celebrated.

As welcomed as this light at the end of the tunnel is though, we would be remiss if we walked away from this crisis without learning several important lessons, especially as we undertake discussions on an infrastructure package, something the chair of this subcommittee is all too familiar with. As I said back in April, during the first hearing of our subcommittee, COVID showed us clearly just how important it is that we are prepared to deal with a fast moving, far reaching crisis, especially our aviation enterprise.

Now that we are rounding the corner on COVID, Government and industry need to sit down and strategize about how we make our aviation enterprise even more resilient across the board, from carriers to concessionaires and air traffic control to airports themselves. Although none of us could have predicted how quickly COVID would devastate aviation, I very much believe we will have missed an important opportunity to bolster our aviation enterprise, making it more resilient and capable of addressing an unforeseen crisis if we go about business as usual once we are fully back to normal.

And the time is right to begin discussing how to do that in earnest. With FAA authorization coming up for renewal in 2023, we can and should really begin discussing how to best modernize our aviation enterprise, including infrastructure, not just for the next 5 years, but for the next 50. And I firmly believe that no idea should be off the table in these discussions. For too long, we have done things much the same way as we always have, especially when it comes to how we pay for projects and what our air traffic control system looks like.

And for too long we have just accepted that business as usual is the only way things will get done. But I believe that in the Nation that gave the world the first airplane and put the first man on another celestial body, it is not too much to think that we are capable of asking the tough questions, challenging existing paradigms and coming up with bold and creative solutions.

So I look forward to hearing the perspectives each of our witnesses brings to today's hearings, as well as their ideas for how we can move aviation in the United States into the future. Thank you.

Senator SINEMA. Thank you, Senator Cruz. Thank you for joining today and thank you for your opening comments. I will move now to our fourth witness. Our fourth witness is Dr. Benjamin Miller, an economist at the Rand Corporation and a professor at the Pardee Rand Graduate School. His research includes the study on airport infrastructure funding and financing mandated by Section 122 of the Federal Aviation Administration Reauthorization Act of 2018. Dr. Miller, thank you for your patience and thank you for joining us today. You are recognized for your opening statement.

STATEMENT OF DR. BENJAMIN MILLER, THE RAND CORPORATION

Dr. MILLER. Thank you. Good afternoon, Chair Sinema, Ranking Member Cruz, and distinguished members of the Committee. Thank you for inviting me to testify on the funding and financing of infrastructure at our Nation's airports. In the FAA Reauthorization Act of 2018, Congress directed the Secretary of Transportation to engage an independent research organization to make recommendations regarding the funding and financing of infrastructure commercial service airports.

The FAA awarded the contract to conduct this study by the Rand Corporation. The Rand Corporation is a nonprofit, nonpartisan research institution and I lead this particular study. The study was informed by a diverse panel of stakeholders, including representatives from airports of all sizes, as well as airlines, travelers, and other stakeholder groups. We also analyzed data from the FAA, the Bureau of Transportation Statistics, and other sources. My remarks today are drawn from the study, which my team and I published in January 2020. We made seven recommendations in our report.

I will focus my comments today on three of those recommendations given their relevance and importance. Those recommendations include, first, increasing the passenger facility charge cap and indexing it to inflation. Second, removing the automatic doubling of primary entitlements in the airport improvement program. And third, establishing a rainy day reserve for the airport and airways trust fund. Our first recommendation is for Congress to increase the PFC cap and index it to inflation. With the approval of the FAA, commercial service airports concurrently applied to collect \$4.50 from each passenger boarding a plane, similar to drivers paying a toll to use a highway.

The PFC is also a user fee that ensures airport infrastructure is paid for by the individuals who use it. The PFC does not currently adjust with inflation, so the value per passenger has declined over time. We are not aware of any compelling justification for a particular level for a new cap, but if the PFC indexed to inflation when last updated in 2001, it would be approximately \$7.50 today. Regardless of what level is selected, indexing the PFC cap to inflation is important for ensuring that it remains a stable source of funds for airport infrastructure in the long run.

Raising the PFC cap does not automatically increase collections, but rather allows commercial service airports to apply for permission to collect a higher PFC. If the cap is raised, ticket prices for passengers will likely increase at airports where applications for PFC collections are approved. Overall, we found that disagreements around whether to increase the PFC cap came down to differences of opinion regarding the urgency of pending infrastructure projects. We found that while the most critical projects will likely be built eventually, increasing the PFC cap will enable airports to complete essential projects sooner and at lower cost.

We also found that existing guardrails are sufficient and effective in requiring airports to demonstrate that the benefits of PFC funded projects justify increase in collections. For these reasons, we recommend increasing the PFC cap. Our second recommendation is that Congress should move the automatic doubling of primary entitlements in the airport improvement program. Under current law, whenever Congress appropriates at least \$3.2 billion to the AIP, primary entitlements per passenger double. This decreases the amount of money available for other AIP funds, including discretionary grants.

As a consequence of this policy, annual AIP funding has spread across all primary airports according to their employments, and the FAA has less discretion to effectively direct funds to current high priority projects in specific airports. This discretion is important because the expensive and long term nature of infrastructure investments means that well-timed but less frequent large grants may be of more practical use than station small grants, particularly for smaller airports.

Our third recommendation is that Congress establish a rainy day fund to serve as a backstop within the Airport and Airways Trust Fund. The AATF is funded by taxes and fees related to air travel and is used to fund the AIP and many other FAA programs. A rainy day fund of approximately \$4 to \$6 billion would be valuable for ensuring that AATF outflows remain stable through common downturns such as recessions or other periods of low air travel.

Such a backstop may be particularly important as the diminished trust fund is reestablished after having been drawn down considerably during the pandemic. These changes in policy, along with other recommendations detailed in our report, could help make airports-could help airports make the infrastructure investments needed to better position themselves for the future.

Thank you for inviting me to testify, and I am happy to answer any questions.

[The prepared statement of Dr. Miller follows:]

PREPARED STATEMENT OF BENJAMIN M. MILLER¹—THE RAND CORPORATION²

FUNDING AND FINANCING INFRASTRUCTURE AT U.S. AIRPORTS: OVERVIEW OF THE 2020 RAND REPORT RECOMMENDATIONS

Good afternoon, Chairwoman Sinema, Ranking Member Cruz, and distinguished members of the subcommittee. Thank you for inviting me to testify on the funding and financing of infrastructure at our Nation's airports. Billions of dollars are spent every year on infrastructure at U.S. airports; aviation connects our country by moving millions of people and hundreds of millions of pounds of cargo every day. In the Federal Aviation Administration (FAA) Reauthorization Act of 2018, Congress directed the Secretary of Transportation to engage an independent research organization to consider issues concerning the status of airport infrastructure and issues of funding and finance at commercial service airports.³ The FAA awarded the contract to RAND to conduct this study. My remarks today are drawn from our study, pub-lished in January 2020.⁴ I will focus my discussion on highlighting how needs, available resources, and the impacts of the coronavirus pandemic differ across airports of different types and sizes. Our recommendations, which I detail below, include in-creasing the Passenger Facility Charge (PFC) cap and indexing it to inflation, removing the automatic doubling of Airport Improvement Program (AIP) entitlements, and establishing a rainy day reserve for the Airport and Airway Trust Fund (AATF).

The Nation's Airports

There are more than 19,000 landing areas within the United States of varying size and type, 5,099 of which are considered public-use airports.⁵ The FAA includes

 $^{^1}$ The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of the RAND Corporation or any of the sponsors of its research.

²The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest. RAND's mission is enabled through its core values of quality and objectivity and its commitment to in-tegrity and ethical behavior. RAND subjects its research publications to a robust and exacting quality-assurance process; avoids financial and other conflicts of interest through staff training, project screening, and a policy of mandatory disclosure; and pursues transparency through the open publication of research findings and recommendations, disclosure of the source of funding of published research, and policies to ensure intellectual independence. This testimony is not a research publication, but witnesses affiliated with RAND routinely draw on relevant research evaluated in the computation.

conducted in the organization. ³ Per Section 122 of the Federal Aviation Administration Reauthorization Act of 2018 (Pub. L. 115-254).

L. 115-254).
⁴ Benjamin M. Miller, Debra Knopman, Liisa Ecola, Brian Phillips, Moon Kim, Nathaniel Edenfield, Daniel Schwam, and Diogo Prosdocimi, U.S. Airport Infrastructure Funding and Financing: Issues and Policy Options Pursuant to Section 122 of the 2018 Federal Aviation Administration Reauthorization Act, Santa Monica, Calif.: RAND Corporation, RR-3175-FAA, 2020 (https://www.rand.org/pubs/research_reports/RR3175.html).
⁵ FAA, National Plan of Integrated Airport Systems (NPIAS): 2019-2023, Washington, D.C., 2018. A public-use airport is defined as publicly owned, privately owned but designated by the

3,321 public-use airports in the National Plan of Integrated Airport Systems (NPIAS), which is an FAA-managed plan to develop an integrated system of public-use airports and identify priorities for Federal airport infrastructure funding. Nota-

bly, an airport must be included in the NPIAS to receive Federal grants. Almost all commercial service airports in the United States are publicly owned. Large-, medium, and small-hub airports served 96 percent of commercial passenger traffic in 2018. However, the vast majority of airports in the NPIAS are general aviation (GA) airports, which do not focus on commercial transportation of pas-sengers. GA airports serve a wide variety of users (typically, small noncommercial transport of people, cargo, or mail); support emergency preparedness and response, local economic activity, and access for local or remote areas; and provide a safety net for the National Airspace System.⁶

Types of Airport-Related Infrastructure

Airport infrastructure is typically distinguished by the categories of airside and landside. Airside infrastructure includes runways, taxiways, aprons, aircraft gates, barriers, lighting, and other facilities necessary for aircraft operation. Landside infrastructure includes airport terminals, parking lots and garages, transportation access roads and rails, rental car facilities, baggage facilities, and other facilities for processing passengers, cargo, and ground transportation. Airports reported spending 312.8 billion on capital projects for these sorts of infrastructure in 2017 alone. Although not a focus of our study, air traffic control (ATC) infrastructure includes towers and other vital facilities, which are not owned and operated by airports, and not all of which are located on airport property.

Areas Where Infrastructure Investment Is Needed

Airport runways are generally in good repair. This reflects the priority given to airside infrastructure in Federal grants provided under the AIP and the effectiveness of funding from all sources to meet airside needs. However, terminals and control towers are widely viewed as needing modernization, repair, or replacement. The growth in the number of enplanements led to crowded terminals at some airports prior to the pandemic, and many aging control towers and other ATC facilities re-quire rehabilitation and upgrading. Smaller airports, which are reliant on Federal growth is drawgrde to generate sufficient supervises for generating on landside infrastrue grants, struggle to generate sufficient revenues for spending on landside infrastructure for ground transportation vehicles, the processing of passengers, and other purposes.

These infrastructure limitations are one of several factors contributing to delays in the National Airspace System that were evident before the pandemic. These infrastructure-related delays are not spread evenly across the system. Rather, a small number of capacity-constrained airports appeared to be responsible for the majority of delays that could be partially (but not fully) addressed by sound infrastructure investment. Twenty airports (19 large hubs and one reliever) accounted for 96 percent of delays measured by the FAA's Operations Network in 2018.

Funding Sources Vary with Airport Sizes

Although airports across the Nation face many of the same challenges, the financial capabilities and local context of each airport can vary widely. Airports of all sizes face a broadly similar distribution of operating expenses, nonoperating expenses, and capital expenses. However, the funding sources used to finance these expenses differ depending on the airport's size, as shown in Figure 1. Further, how financial risks are distributed between airports and airlines depends on the particulars of use-and-lease agreements between individual airports and their tenant airlines. Airports also entered the pandemic with widely varying amounts of cash re-serves, airline competition, and infrastructure-related delays.

The difference in the proportion of AIP grants and PFC funds by airport size is particularly noteworthy, as these are the two funding sources most directly affected by Federal policy. Larger airports generally choose to forgo a large portion of their AIP entitlements in order to collect additional PFC funds. This is because their larger passenger volumes cause the revenue collected from PFCs to easily exceed the

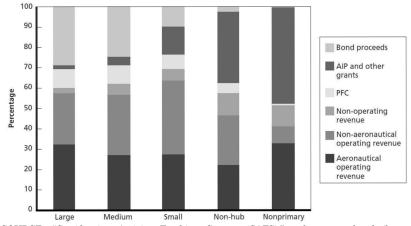
FAA as a "reliever" for congestion at commercial service airports, or privately owned but having

⁶FAA, "Interim Guidance on Land Uses Within a Runway Protection Zone," memorandum to Regional Airports Division Managers, 610 Branch Managers, 620 Branch Managers, and ADO Managers, September 27, 2012.

⁷Congressional staff made clear to RAND that the Section 122 study was not intended to address the infrastructure needs of the more than 300 ATC facilities operated by the FAA and for that reason was not included within the scope of the study.

forgone AIP entitlements. In contrast, smaller airports often perceive the potential revenue from PFCs to be too small to justify the administrative costs of applying.

Figure 1. Proportion of Funding Sources, by Airport Size, 2017



SOURCE: "Certification Activity Tracking System (CATS)," webpage, undated (https:// cats.airports.faa.gov).

362 airports were collecting PFCs as of August 2019, including 98 of the Nation's largest 100 airports. As shown in Table 1, the vast majority of these airports collect the maximum allowable fee of \$4.50 per flight segment.

Airport Category	Number of Airports	Airports Currently Collecting PFCs	Airports Collecting PFCs at the Maximum \$4.50 Level
Large hub	30	30	29
Medium hub	31	31	30
Small hub	72	68	67
Non-hub primary	247	193	187
Nonprimary commercial service	126	40	37
Total	506	362	350

Table 1. PFCs by Airport Category

SOURCE: FAA, "Key Passenger Facility Charge Statistics," May 31, 2019. NOTE: Data are as of August 31, 2019; the number of airports in each hub-size category is from FAA, "Voluntary Airport Low Emissions Program (VALE)," webpage, updated November 13, 2018 (https://www.faa.gov/airports/environmental/vale/).

Smaller airports by definition have a smaller user base that offers fewer opportunities for raising revenue and are therefore more reliant on Federal (and to a much lesser extent, state) grants than larger airports for paying the high fixed costs related to runways, taxiways, aprons, safety, and security. GA airports are not eligible to collect PFCs, a mechanism that Congress authorized exclusively for use by commercial service airports, nor do GA airports have sufficient passenger volume to support such a user fee. Instead, GA and nonprimary commercial service airports rely on AIP funding, which is redistributive by design; smaller airports receive a larger share of AIP dollars than they generate in excise tax revenues to the Airport and Airway Trust Fund (AATF), which funds the AIP and many other FAA programs

The Pandemic and Its Impact on Demand for Air Travel

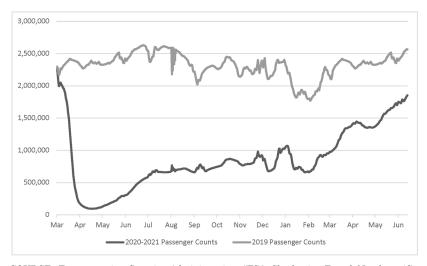
Prior to the coronavirus pandemic, the demand for air travel was steadily increasing, leading to questions about whether the flow of funds supporting airport infrastructure was sufficient to keep pace with the growing demands placed on airport infrastructure. The severity and duration of the reduction in demand for commercial

passenger air travel caused by the coronavirus pandemic was unprecedented, even in comparison to past disruptions, such as the September 11 attacks, which were previously considered by the industry to represent a worst-case scenario. The Airports Council International–North America forecasts that U.S. airports will lose \$23.3 billion in revenues as a result of the COVID–19 pandemic.⁸ At least four re-gional airlines collapsed,⁹ and airports in dozens of small cities lost almost all commercial passenger air service because the remaining demand for passenger air trav-el was no longer sufficient to support regularly scheduled service.¹⁰

Passenger Service

Passenger volumes have been recovering very slowly after bottoming out, with approximately 95 percent fewer passengers in April 2020 than in April 2019, as shown in Figure 2. This decline in passenger traffic was experienced by airports of all sizes. As of mid-June 2021, demand reached approximately 70 percent of 2019 levels. Recent trends appear to point to domestic passenger counts returning to 2019 levels within the next year, although international travel may take longer. As passenger travel resumes its previously forecasted growth, the question of sufficiency of funding will reemerge.





SOURCE: Transportation Security Administration, "TSA Checkpoint Travel Numbers (Current Year(S) Versus Prior Year/Same Weekday)," webpage, last updated June 17, 2021 (https://www.tsa.gov/coronavirus/passenger-throughput).

NOTE: Both lines show seven-day rolling averages. The orange line shows the average num-ber of passengers on the corresponding date in 2019.

⁸Airports Council International-North America, "Economic Impact of Coronavirus on U.S.

Commercial Airports," fact sheet, April 29, 2020 (https://airportscouncil.org/resource/economic-impact-of-coronavirus-on-u-s-commercial-airports/). ⁹Justin Bachman, "Another Regional Airline Falls to the Covid-19 Recession," Bloomberg, Au-gust 4, 2020 (https://www.bloomberg.com/news/articles/2020-08-04/another-regional-u-s-air-line-falls-to-the-covid-19-recession).

¹⁰ Ian Duncan, "American Airlines to Cut Service to 15 Cities Once Terms on Billions in Pan-demic Aid Expire," *Washington Post*, August 20, 2020; Peter Buffo and Sandra Jones, "Ground-ed: Some Cities Lost More Than Half Their Flights amid COVID-19," WAGM, March 29, 2021.

Cargo

The quantity of cargo being flown across the country reached record highs during the pandemic.¹¹ Demand for air transportation of cargo spiked in May 2020, as shown in Figure 3.

Figure 3. Millions of Ton-Miles of Freight and Mail per Month (Seasonally Adjusted), January 2003– March 2021



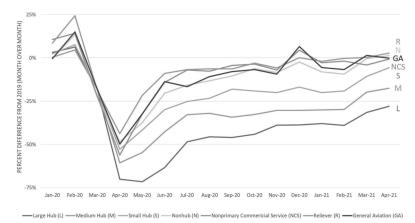
SOURCE: Bureau of Transportation Statistics, "Air Cargo Summary Data (All): October 2002–March 2021," webpage, undated (https://www.transtats.bts.gov/freight.asp).

The Impacts of the Pandemic Have Varied Across Airports

The pandemic has been devastating for airports of all sizes, just as it has been for airlines and all industries involved in air travel. The increase in cargo is not a substitute for the revenue lost from the decline in passengers. Because different types of airports may focus on serving different customers, the rate at which the number of flights is returning to prepandemic levels varies across airports of different types. Figure 4 shows that smaller airports, where a larger fraction of flights are cargo, have returned to their prepandemic number of flights more quickly than larger airports, which typically focus on commercial passengers. However, even if an airport were to replace lost passenger flights with cargo flights, that might not fully replace lost revenue from such sources as parking garages and terminal leases.

¹¹Our report in response to Section 122 of the FAA Reauthorization Act of 2018, focused on commercial passenger service rather than cargo. However, understanding the pandemic's impact on cargo is important for understanding how the pandemic's impact varies across different types of airports.

Figure 4. Year-over-Year Percentage Change in Operations, by Hub Type



Source: FAA, "The Operations Network (OPSNET)," database, undated (https://aspm.faa.gov/

opsnet/sys/main.asp)

Recommendations

Since our report was published in January 2020, the pandemic has severely disrupted air travel. Demand for air travel will—eventually—return to previous levels and previous rates of growth. When that happens, the same infrastructure funding issues will reappear. For this testimony, the study team reviewed our recommendations in light of the pandemic's impacts and considered whether changes were warranted. We concluded that, despite the coronavirus pandemic, our recommendations remain sound and require little modification.

Changes to the PFC Program

The PFC is a federally authorized user fee paid by passengers at the time of ticket purchase and remitted to the airport at which the passenger boards a plane. With the approval of the FAA, an airport can choose to collect up to \$4.50 from each passenger boarding a plane, similar to drivers paying a toll to use a highway. Congress determines the maximum allowable fee per passenger boarding; an airport may apply to collect that amount or a lower fee. The vast majority of these airports collect the maximum allowable fee of \$4.50 per flight segment. There is an ongoing debate over whether the maximum allowable PFC should be increased above \$4.50, the amount it has been since April 2001, when the cap increase included in the 2000 FAA reauthorization took effect.

The PFC does not currently adjust with inflation, so the value per passenger has declined over time. The total amount of PFC funds collected has increased over time due to three factors: (1) an increase in the number of airports that impose a PFC, (2) an increase in the average PFC charged by these airports, and (3) an increase in enplanements. At the same time, increases in enplanements and operations also increase demands on infrastructure.

Airport sponsors cannot unilaterally impose a PFC. Rather, they must apply to the FAA to request approval to collect a PFC.¹² The application must identify specific PFC-eligible projects that the collected funds will support, as well as provide other documentation. During the application process, airport sponsors must consult with air carriers and submit formal responses to any formal comments made by air carriers or other members of the public.

PFC revenues are attractive to airports because they can be used for a wider range of projects than can AIP grants, and they can also be used to pay for debt service and financing costs.

¹²The application process is detailed in FAA Order 5500.1, and the instructions for preparing a PFC application are available on the FAA's website. See FAA Order 5500.1, *Passenger Facility Charge*, Washington, D.C.: Federal Aviation Administration, August 9, 2001; FAA, "Instructions for Preparing Attachments for PFC Application Form: Section 6 of FAA Form 5500–1," undated.

Congress Should Increase—but Not Remove—the PFC Cap and Index It to Inflation

This option will improve airports' ability to make timely and efficient capital investments to meet growing future demand while leaving in place FAA oversight of project justification and costs on passengers.

Specifically, we recommend that Congress

- raise the current PFC cap of 4.50 to approximately 7.50 for origin passengers only
- index the new PFC cap to inflation
- eliminate 100 percent of AIP primary entitlements for medium-and large-hub airports that choose to raise their PFC above \$4.50.

We are not aware of compelling evidence or data justifying a particular level for a new cap. Any number could be chosen, but we note that if the \$4.50 cap had been indexed to inflation in 2000 using the Producer Price Index for construction materials, it would now be set at \$7.44. For this reason, we suggest that the cap in this option be around this value, perhaps rounded up to \$7.50, although other levels could be chosen. Although an increase in the PFC cap would likely result in higher ticket prices for passengers traveling through airports that raised their PFC collections, there remains in place a set of guardrails to weigh the public benefits of PFCfunded projects relative to the costs imposed on passengers. Airports will continue to be required to justify the net benefits of projects proposed for PFC funding to the FAA, and the FAA retains its discretion to approve or disapprove applications for these projects. Further, airports will still need to be responsive to comments from airlines and other stakeholders when requesting a PFC increase.

To ensure that airports have sufficient and stable sources of revenue commensurate with present and future capital needs, the PFC cap should be indexed to inflation, regardless of whether the PFC cap is otherwise changed. Indexing the PFC to a construction index, such as the Producer Price Index for construction materials, would stabilize the parity of purchasing power at the current cap or a new cap set by Congress for airports making infrastructure investments. In contrast, indexing to the Consumer Price Index would hold constant the impact of PFC increases on passenger ticket prices.

¹ Not all airports may choose to seek an immediate or longer-term PFC increase. To increase transparency regarding the intentions of airports in maintaining cash reserves beyond those required by bond-rating agencies, we suggest that the FAA consider an airport's cash reserves and broader financial status when determining whether to approve an airport's request for an increase in its PFC. Prior to the coronavirus pandemic, there was significant variation in airports' levels of cash reserves.

We further recommend that large-and medium-hub airports that raise their PFC above \$4.50, indexed to inflation, should forgo their AIP primary entitlements, dollar for dollar, for each dollar of PFCs they collect up to 100 percent of these entitlements. Instead, that money could more efficiently achieve the redistributive purpose of the AIP program by either being focused on needs of national significance among smaller airports or directed to other priorities affecting the safety and sustainability of the National Airspace System. Airports that raise their PFC above \$4.50 would remain eligible for other categories of AIP funding, including discretionary grants and cargo entitlements.

We recommend that any increase in the PFC cap apply only to passengers who originate at that airport and that the PFC for layover passengers remain capped at \$4.50, indexed to inflation. The rationale for restricting future PFC increases to origin passengers only is to ensure that airports that increase their PFCs do so at their own expense, rather than at the expense of other airports. Under current law, passengers with one or more layovers must pay two PFCs, one to the origin airport and one to the first layover airport. If an airport's PFC increase applies to layover passengers, demand for flights that have layovers at that airport would decrease. This would be particularly problematic for small airports, where almost all routes go through one or two larger "feeder" airports to connect the community to the national and international system. Because origin passengers can still be charged PFCs at currently approved rates, all commercial service airports would still receive a meaningful increase in their ability to raise revenue through PFCs.

Implications of the Pandemic

The need to increase the PFC and index to inflation remains—indeed, the need is greater, if anything. Airports have \$16.6 billion in debt service payments to make

over the next two years,¹³ much of which was to be paid with PFC funds collected over that time. With passenger volumes down, those PFC funds will be far less than anticipated. Because revenue from other funding sources, such as retail and parking, is also down, many airports will need to draw on PFC revenues from future years to pay off debts. However, many airports have already borrowed against PFCs that will be collected decades into the future and hence may have limited ability to obtain additional PFC funds. This will delay airports' ability to finance future infrastructure projects.

That said, it is unclear whether airports would make immediate use of a PFC increase in today's environment. Keeping costs down has been a focus of both industry and policy responses to COVID-19, with the hope of luring back travelers. As explained above, raising the PFC cap does not directly raise PFCs—it simply provides airports the option to apply for permission to raise their PFC at the appropriate time.

Changes to the AIP

AIP grants represent the largest, most direct involvement of the Federal government in funding airport infrastructure. AIP grants are funded by the AATF, a Federal trust fund that receives excise tax revenues from passenger and cargo travel and fuel purchases and that is used exclusively to fund aviation-related activities. The annual AIP funding appropriation limitation is set by Congress. AIP grants are distributed to public-use airports listed in the NPIAS via a complex set of apportionment formulas and percentage set-asides.

There are two general types of AIP grants: entitlements and discretionary. The FAA uses discretionary grants to target specific projects at individual airports ac-cording to need and benefit to the system as a whole. The FAA awards entitlement grants to most airports in the NPIAS, although airports that receive approval for PFC-funded projects forgo a portion of their entitlement. Under current congressionally mandated funding formulas, GA and nonprimary commercial service airports are each eligible to receive entitlement grants of up to \$150,000 per year, an amount too small to support airport construction of any consequence. Airports, however, are permitted to defer their annual entitlements over several years to accumulate sufficient funds to undertake a project.

Importantly, large-and medium-hub airports forgo a portion of their primary enti-tlements if they impose a PFC. Virtually all of them choose to do so because their passenger volumes ensure that revenue collected from PFCs dwarfs forgone AIP en-titlements. Large and medium hubs that charge a PFC of \$3 or less forgo AIP ap-portionments equal to 50 percent of their projected PFC revenues for the year, up to 50 percent of their projected PFC revenues for the year, up to 50 percent of their primary apportionment, while those that charge a PFC of more than \$3 forgo an amount equal to 75 percent of projected PFC revenues, up to 75 percent of their primary apportionment.¹⁴ By statute, 87.5 percent of these forgone AIP entitlements go to the Small Airport Fund,¹⁵ while the remaining 12.5 percent are available as discretionary funds.¹⁶

Congress Should Remove the Automatic Doubling of AIP Primary Entitlements

Under current law, whenever Congress appropriates at least \$3.2 billion to the AIP, primary entitlements per passenger double (subject to a cap), with those in-creases resulting in less money available for other AIP funds, including discre-tionary grants. As a consequence of this policy, annual AIP funding is spread across all primary airports according to their enplanements, and the FAA has less discretion to effectively direct funds to current high-priority projects at specific airports.

In our report, we recommend that Congress remove the triggered primary entitlement increase that occurs when Congress appropriates at least at \$3.2 billion to the AIP. Those airports not voluntarily forgoing AIP entitlements in return for the ability to collect PFCs could still receive comparable levels of AIP funding over time, but the timing and magnitude of annual grants would be better aligned with the timing and magnitude of needs. Airports could compete to receive more funds in the form of larger grants from the pool of discretionary funding, when needed, but would receive fewer guaranteed funds in the form of annual entitlements.

Congress Should Consider Removing Nonprimary Entitlements

As with primary entitlements, under current law, whenever Congress appro-priates at least \$3.2 billion to the AIP, each nonprimary airport in the NPIAS re-

¹³ Airports Council International–North America, 2020.

^{14 49} U.S.C. §47114.

¹⁵ Funds in the Small Airport Fund are awarded competitively to specific categories of small airports. ¹⁶49 U.S.C. §47116.

ceives an entitlement of up to \$150,000 instead of those funds going to more-flexible state apportionments for nonprimary airports. This amount is insufficient for major construction projects, and the existing state apportionment mechanism is better suited to meet nonprimary airports' needs and has sufficient oversight mechanisms in place. We recommend that Congress eliminate nonprimary entitlements that occur under current law when the AIP appropriation is at least \$3.2 billion. As with the previous recommendation, airports could still compete to receive comparable levels of funding over time, but the timing and magnitude of individual distributions would be better aligned with the timing and magnitude of needs.

It is important to emphasize that the purpose of removing nonprimary entitlements is to reconfigure how nonprimary airports are supported and not to reduce overall support for nonprimary airports. These changes—combined with the PFC reforms that would increase the amount of forgone AIP primary entitlements going to the Small Airport Fund—would ensure that nonprimary airports have access to more resources when they are needed.

Changes to the AATF

Congress Should Establish a Rainy Day Reserve Fund to Serve as a Backstop for the AATF

Prior to the pandemic, we had suggested that Congress use what had been a large uncommitted balance in the AATF to establish a rainy day fund to support the air travel industry in the event of unusually low air travel. A few months after we published our report, the pandemic caused an unprecedented decline in demand, and Congress reacted to the decline by temporarily waiving the taxes associated with air travel. This change eliminated the flow of revenues to the AATF, thereby draining the funding source for many FAA programs.

Now that the flow of funds to the AATF has resumed, the AATF will likely replenish, albeit slowly. Establishing a rainy day fund remains a sound idea to ensure that funding levels for FAA programs and activities can remain stable over time as the fund replenishes. Our report had estimated that a rainy day fund containing \$4 billion to \$6 billion would be sufficient to ensure that AATF outflows would remain stable even in the face of two to three years of severe revenue shortfalls. Although such a rainy day fund would not be sufficient to provide stability during disruptions of the magnitude of the current pandemic, we continue to believe that it would be sufficient to provide stability in the face of two to three years of severe revenue shortfalls, as might occur in a severe recession. Once the AATF is fully funded and a rainy day fund is in place, any additional AATF revenues should be appropriated to meet clearly identified needs, as determined by the FAA.

Congress Should Include Ancillary Fees in the Domestic Passenger Ticket Tax

Ancillary fees are charges for airline-provided services or products that some airlines sell separately from tickets, such as checked baggage, advance seat assignments, and priority boarding. These fees are excluded from the 7.5 percent Domestic Passenger Ticket Tax that helps fund the AATF. This policy favors airlines that separate ancillary fees from their base ticket price over those that do not. Airlines should be free to separate ancillary fees if they wish, but the Domestic Passenger Ticket Tax should not incentivize one business model over another by taxing ancillary services differently from bundled ticket prices.

Conclusions

In our analysis, we concluded that sufficient guardrails are in place within the PFC program and the marketplace to prevent airports from making inappropriate use of PFC revenues. The PFC program represents a near-ideal example of the userpays principle of infrastructure funding and has proved to be a valuable source of revenues for medium and large airports. Paired with a healthy market for airport bond issues, PFCs help provide airports with access to the capital they need to keep up with changing and growing demands. Smaller airports could also gain from changes that improve the flexibility and timeliness of AIP grants. Such changes could enable small airports to access funds at the time they are needed to serve their communities. Finally, Congress has an opportunity to make some changes in the AATF to make it even more resilient to future shocks and provide assurances of sustainability to the airport sector for years to come.

Before the pandemic, the airport sector was generally healthy and poised for continued growth. In the coming months and years, airports will regain their passenger volumes. In the meantime, changes in policy could help airports make the investments needed to better position themselves for the future. Senator SINEMA. Thank you so much. And our fifth witness, I would like to invite Senator Cruz to introduce Sean Donohue. Senator Cruz, are you still with us? Oh, you are. Great. I turn over to you to introduce our final witness.

Senator CRUZ. Thank you, Madam Chair. I would like to introduce Sean Donohue. Sean currently serves as Chief Executive Officer of Dallas Fort Worth International Airport, a role that he has held since October 2013. Prior to this, he served as the Chief Operating Officer for Virgin Australia Airlines, where he led the day to day operations for Australia's second largest air carrier, and in a variety of executive roles at United Airlines that included operations, sales, and commercial startups.

In his role as CEO of DFW, the fourth busiest airport in the world, Mr. Donohue is responsible for the management, operation, and future strategy and development of the airport. He manages an organization with 1,800 employees and an annual operating budget of \$800 million, as well as a \$3 billion capital improvement program, which produces more than \$37 billion in annual economic impact for the Dallas Fort Worth region, hosting pre-COVID around 64 million customers each year.

Mr. Donohue graduated from Boston College with a Bachelor of Science degree in Marketing and Economics, and he is married with five children. And although he is a native of Massachusetts, he has certainly made Texas his home.

STATEMENT OF SEAN DONOHUE, CEO, DALLAS FORT WORTH INTERNATIONAL AIRPORT

Mr. DONOHUE. Good afternoon and thank you, Chair Sinema, a special thanks to Ranking Member Cruz for your kind comments, and also greetings to the members of the Subcommittee. Thank you for the invitation to discuss our perspective on aviation infrastructure. Senator Sinema, I just wanted to comment, I hope you have had a chance to meet the new Director of Aviation in Phoenix Airport, Chad McClosky. Chad spent the last 4 years at DFW, and along with Danette, the state has two excellent aviation leaders at your largest airports in Arizona.

Before I begin my remarks on infrastructure, I want to express my gratitude to Congress for the tremendous support of the aviation sector during the pandemic crisis. In my 35 plus years in the industry, this is by far the most consequential financial support airports, airlines, and importantly airport business partners such as small, women, and minority owned concessionaires have ever witnessed. My sincere thanks. At DFW, we realized we have been fortunate compared to some of our other airport colleagues in weathering the impact of COVID-19.

While we saw our revenues drop by over \$200 million just in the last 6 months of last year, we have recently seen a faster recovery and forecast our 2021 summer traffic to be 85 to 90 percent [technical problem.]—2019. We also made the deliberate decision to proceed with a handful of key infrastructure projects during the pandemic. One of them was the reconstruction of one of our main arrival runways, which was funded in part by AIP funding. This effort, along with a few other key projects, created over 4,000 new jobs during the pandemic. I note these projects to highlight, while DFW Airport plays a critical role in the U.S. aviation system, we also had the responsibility, as Senator Cruz highlighted, of being a \$37 billion annual economic engine for North Texas that supports over a quarter of a million jobs.

As it relates to airports and our dual aviation and economic driver roles, infrastructure remains our biggest challenge and we are pleased that airports are included as part of the national infrastructure discussions. As has been highlighted, U.S. airports have over \$100 billion in infrastructure needs over the next several years. Why is that number so large? First and stating the obvious, we have very old airports in the United States. Take DFW, we are nearly 50 years old, and we are the second youngest large airport in the country.

And we need to be realistic. There are very few opportunities for Greenfield airport projects in the U.S. Like Denver Airport, the last one, which, by the way, is now 25 years old. Coupled with growing traffic, which I believe all of us on this call, in this discussion would agree is going to return, our aging airports will primarily require projects that reconstruct older facilities. Those type of projects are more expensive, and they take considerably more time than Greenfield projects.

Having spent the majority of my career working for airlines, I am very sensitive to the needs of the airlines as they recover from the greatest financial shock in modern aviation history. Despite the significant support of Congress, the airline balance sheets have been severely impacted. Since airlines ultimately pay for the majority of airport infrastructure projects through fees and charges, understandably, I would suggest we are looking at a lost decade of airport infrastructure support from many of our airline partners. hence the criticality of airports being considered in the current infrastructure discussions.

I commend the Senators working on various infrastructure proposals related to airports. All U.S. airports, regardless of size, are critical to the ecosystem of aviation. I am confident every Member of Congress, whether they begin their travels from a small, midsized, or large airports, understand the importance of airports-understand the importance airports bring to the economies of their state.

Thank you very much for the opportunity to join the discussion today and I will be glad to take any questions.

[The prepared statement of Mr. Donohue follows:]

PREPARED STATEMENT OF SEAN DONOHUE, CHIEF EXECUTIVE OFFICER, DALLAS FORT WORTH INTERNATIONAL AIRPORT

Chair Sinema, Ranking Member Cruz, and members of the subcommittee,

Thank you for the invitation to join today to discuss our perspective on aviation infrastructure at Dallas Fort Worth International Airport (DFW). I've served as Chief Executive Officer of DFW since late 2013 where I am respon-sible for the management, operation and future strategy and development of the Airport. I am a member of the U.S. Travel Gateway Airports Committee and sit on the Executive Committees of the World Travel & Tourism Council and the Dallas Regional Chamber. I previously spent over 25 years working for U.S. and global airlines

About Dallas Fort Worth International Airport

DFW covers more than 26.9 square miles of North Texas. We have 2,000 direct airport employees and over 60,000 total on-airport employees through airlines, concessionaires, vendors, and other partners. The aviation ecosystem in north Texas is one of the largest and most robust in the nation, home to American Airlines, Southwest Airlines, Bell Helicopter, Boeing Aviall, Sabre, and more.

DFW operates 7 runways and 164 gates throughout 5 terminals. In calendar year 2020, DFW ranked 4th in the world for passengers and 2nd in North America. DFW produces over \$37 billion in economic impact each year. DFW is the second largest economic engine in the Texas behind the Port of Houston.

DFW's role as a leading international cargo operations and logistics hub is critical to the North Texas economy. DFW's total cargo throughput is nearly 1 million U.S. tons per year.

COVID-19's impact on travel significantly reduced revenues from airlines and passengers for the last two Fiscal Years from which we expect a full recovery not to occur until 2023. DFW and the airport industry are grateful for the three COVID relief packages Congress passed. DFW has used and will use the funds primarily to stabilize our balance sheet and provide relief for our concessionaire and airline partners. The Federal relief funds allowed us to balance our finances so that we did not have to pass on incremental costs to our airline partners, who were also deeply impacted by the pandemic. DFW also reduced its budget by over \$90 million after the pandemic hit. But, even before the COVID-19 tragedy struck the world, DFW and other airports across the United States were already playing catch up in the race to modernize our aging infrastructure.

Modernizing aging infrastructure to manage existing capabilities

DFW is nearly 50-years old. Much of our existing infrastructure has reached the end of its useful life and requires rehabilitation and replacement. DFW faces the challenge of balancing the priorities of modernizing existing infrastructure capabilities while making the necessary investments for future travel demands. We must plan for expansion as we are operating in one of the fastest growing urban areas in the United States.

We placed approximately \$100 million in capital projects on hold for an estimated 18 months. Further adjusting to COVID's effect on the economy and travel, DFW extended our 10-year Capital Improvement Program (CIP) to 15 years to reduce the capital expenditure in the near term while aviation activity recovers. This program focuses specifically on aging infrastructure rehabilitation and replacement. Previously DFW had renovated three of its four original terminals that were built in the early 1970s.

DFW is currently planning the renovation of the fourth original Terminal C plus the addition of 9 additional gates for growth in the Central Terminal Area (CTA). In addition, our access roads, bridges, and utility systems are 50 years old and in need of replacement. DFW's total capital investment needs over the next decade is in excess of \$6 billion, with nearly 90 percent of those dollars being slated for infrastructure repairs and replacement alone.

On a positive note, we were able to accelerate some projects due to the period of lower airport utilization, such as the recently completed reconstruction of Runway 18R/36L as this is a critical piece of infrastructure for the entire National Airspace System. DFW was able to create and preserve jobs at the height of the pandemic by following through on the project. It was made possible in part through an AIP letter of intent from the FAA. In the past 14 months of the pandemic, DFW was able to complete 42 Capital Projects amounting to over \$500 million in capital expenditures. We're proud to share that this work created 4,348 new jobs during a difficult economic environment.

Investing for growth and future travel demands of the 21st century

The travel industry is beginning to see the initial signs of recovery and we must be ready to welcome travelers. COVID forced DFW to suspend construction of a new 24-gate Terminal F and associated infrastructure due to uncertainty around future passenger growth and the financial impact to the airlines. The pandemic's impact on the construction of Terminal F puts DFW behind the growth curve as travel demand rapidly returns. Delaying construction of a new terminal challenged us to adjust planning and reorganize activity to be prepared for when travel demand returns to pre-COVID levels. However, the 9-gate expansion of the Central Terminal Area will not be enough to meet the demands of future travel. Our post-COVID adjusted 15-year Capital Improvement Program includes—45 percent airfield, 30 percent roads and bridges, and 25 percent facilities projects. All

Our post-COVID adjusted 15-year Capital Improvement Program includes—45 percent airfield, 30 percent roads and bridges, and 25 percent facilities projects. All of the Capital Improvement Projects are critical infrastructure projects as the DFW Capital Improvement Program is based on condition assessments conducted by professional firms and just in time delivery of assets rehabilitation. The team at DFW is focused on developing shovel-ready projects to create opportunities should additional funds become available. We accelerated the design and required environmental documentation for key airfields, roadways, and facilities infrastructure projects. This planning will facilitate project opportunities that can stimulate job creation in the North Texas regional economy as we serve travelers.

creation in the North Texas regional economy as we serve travelers. Another facet of our project development at DFW is to look for ways to achieve our Net Zero Carbon by 2030 goal. DFW is the largest carbon airport in the world. DFW integrates sustainability principles into all aspects of operations, planning, and development. A key component of our Net Zero Carbon by 2030 goal is a \$170M electric central utility plan that would replace our aging utility plan and transition DFW's primary heating fuel source from natural gas to renewable electricity. The project will further reduce our carbon and ozone emissions and decrease water use annually as well as provide operating cost savings. Our DFW team is creative and leans forward with planning and development.

Our DFW team is creative and leans forward with planning and development. However, the current AIP program is not sufficient to put a dent in our Capital Improvement Program and there are limitations on eligible projects for AIP funds. The only option we have is to issue bonds to finance these projects which are repaid through higher airline charges.

Bringing Airport Infrastructure into the 21st Century

The industry appreciates the committee, as well as your colleagues in the House, working with us to find solutions to meet the needs of providing world-class domestic and international business and leisure travel.

I would like to thank the Chair and Ranking Member along with Senator Young for introducing the Expedited Delivery of Airport Infrastructure Act last week. We have been supportive of the companion bill in the House and encourage passage in the Senate. I commend the Senators working on the various infrastructure proposals being discussed for recognizing the ongoing need of airports. As we in the aviation industry work to address our infrastructure challenges ahead, money directed toward airports would be put to good use at DFW and at other airports across the country on meaningful and necessary infrastructure projects.

Airports of all sizes and locations are a critical ecosystem of travel moving passengers and cargo throughout America and beyond our borders. Every Member of Congress, whether they begin their travels at a small, mid-sized, or larger airport in their state, understands the importance airports bring to the economy of their state.

Thank you for the opportunity today and I look forward to your questions.

Senator SINEMA. Thank you so much. I will first start by recognizing myself for 5 minutes of questions. Ms. Bewley, thank you for being here and for your work at the Tucson Airport Authority. In your testimony, you discussed the airfield safety enhancement project underway at the Tucson International Airport, the largest infrastructure project ever at your airport.

The project has many benefits. It will improve safety, increase efficiency, support the Arizona Air National Guard mission, and also create jobs. How can Congress best support important safety projects like the ASE project in Tucson?

Ms. BEWLEY. Thank you for the question, Senator Sinema. The help that we need at Tucson International Airport and other airports across the Nation really is with a reliable funding source and funding stream that isn't disconnected between Federal Fiscal Years. As Sean Donohue mentioned, that if you have a large project, it would be wonderful and effective if the funding source matched the size of that project, and that the funding operated at the speed of the project, so the project doesn't have to slow down because of Federal funding streams. We can be very efficient.

Airports operate as business enterprises, and we are very good at what we do. And the last thing we want to do is slow a project down. So anything that we can do to improve the Federal funding source, the Federal funding stream, would allow us to be more efficient and effective. And as you mentioned, the Tucson ASE project has wonderful benefits for air carriers, our general aviation users, and the military, all important assets to our regional economy and to our Nation's economy.

Senator SINEMA. Thank you so much. My next question is for Mr. Rinaldi. The Phoenix Mesa Gateway Airport is in the process of replacing its 50 year old tower. It is too short and has a cab that is too small to keep up with the growth of the airport. The new tower will be 65 feet taller, will have twice the space, and will provide unobstructed views for air traffic controllers. In your testimony, you discussed the age of our air traffic control physical infrastructure. Can you explain how outdated towers make it harder for your members to do their jobs?

Mr. RINALDI. Thank you, Chair Sinema. Absolutely. Listen, I think that when you have to walk up 20 flights of stairs to report to duty in a tower cab, and hopefully you didn't forget anything because then you have to go back down and get your headset or your lunch, you are winded and you are already sweating, and hopefully the HVAC system works. And we are having problems with air conditioning throughout our facilities. But I think air traffic control is a very high, intense-focused occupation.

We don't like distractions in our operation and our aging infrastructure is a distraction in our operation which can impede safety. So we really have to focus on getting our facilities up to speed, getting them healthy, making them the type of facilities that people want to come to work and not worry about ripping their clothes or cutting their hands because the countertops have sharp edges on them and, you know, they are ripping their hands up as they are moving across, moving paper strips from one position to the other.

Senator SINEMA. Thanks. My next question is for Mr. Cullen. Mr. Cullen, most air travelers think about their experience in the terminal when they think about aviation infrastructure. So how do air carriers such as Southwest partner with airports to help improve terminals? And what recommendations do you offer for how Congress can best support those terminal projects?

Mr. CULLEN. So yes, we generally work with airports' various committees, and in addition to talking about capacity growth, we talk about what the customer experience looks like. Just talking on the—talking about Southwest looks at the customer experience, we really go in and look at net promoter score to the entire customer experience, be it at the airport, online, or in the air. And that really allows us to clue into where we have got areas of opportunity.

I think looking forward to what post pandemic experience looks like at the airport, I think we have a proven record, at least we point back to 9/11 and the improvements that were required for TSA checkpoints and then security, the investments that were made over the years following 9/11 in essentially every airport. So I think we are standing by, ready to see what those future investments may look like.

Senator SINEMA. Thank you so much. Now, my time has expired. So I now recognize the Subcommittee's Ranking Member, Senator Cruz, for his 5 minutes.

Senator CRUZ. Thank you, Madam Chair. Mr. Cullen, I want to start with you. As you are aware, for the entirety of my tenure in the Senate, I have been blunt about my position on passenger facility charges, PFCs. That they are a tax on consumers, and if raised, they will inhibit increased air travel.

I notice that in your written testimony, you stated that Southwest strongly believes that, "increased taxes and fees on passengers does the most harm to price sensitive customers and to smaller markets, such as many of the 18 new airports we have added or announced since the pandemic began." Can you please go into more detail on why, in your judgment, an increase in the PFC would be bad for consumers and would inhibit air travel?

Mr. CULLEN. Absolutely. So the PFC, as we look at it, has to be included in the price that we advertised, and we put on our website to sell. So any increase of that is a direct increase to the fare that a customer has to pay. Now that is point one. Point two, if you look at many of the new airports that we serve, many of them are smaller and just by their nature don't have the same amount of destinations offered.

So therefore, it is a requirement that many of them have to connect—customers have to connect over markets. So they actually have to double dip in the PFC pool just to pay the original—the market where they originate and also where they connect. So that really is a form of double taxation.

Senator CRUZ. OK, and knowing your position of PFC increases, I am also interested to know what the alternative for funding would be if the cap on PFCs is not increased, and if additional funding doesn't come from PFC,s where would additional revenue come from?

Mr. CULLEN. Absolutely. So the cap on PFCs has been in place from the early aughts and at \$4.50. However, since that time, over the 20 years, we have actually seen PSC collections increase 137 percent. So from \$1.6 billion to well over \$3 billion. The—however, if you look at AIP funding, that was really held constant. It was \$3.3 billion 20 years ago, it is still there today. So I would argue that is one place where we have not kept up with demand and with inflationary increases.

Senator CRUZ. And what should the role of private capital and private activity bonds be in terms of airport and other aviation in-frastructure?

Mr. CULLEN. Well, at Southwest, we have had some nice success in terms of taking the private approach and us at Southwest Airlines leading on projects. We have seen that going back years ago in Dallas Love Field and in Houston Hobby. We are currently underway in LAX. And I think we have got a great model there where we have proven we can deliver projects on time and well below budget.

Senator CRUZ. OK, and now this question is for Ms. Bewley, Mr. Donohue, and Dr. Miller. I understand that that airport funding was thrown into chaos by the lack of air traffic due to the pandemic. But right now, airports seem to be fairly flush with COVID relief money. I continue to believe that increasing the cap on PFCs will only drive demand away from airports and inhibit air travel.

In fact, Dr. Miller, in your testimony, you acknowledge that, "an increase in the PFC cap would likely result in higher ticket prices for passengers." In your judgment, should we be concerned about raising prices on consumers and reducing demand for air travel, number one? And number two, if Congress does not raise PFCs, what alternative revenue sources are there for the infrastructure improvements we need in airports?

Dr. MILLER. This is Dr. Miller. I can go ahead and dive in on the first part of that question. We agree in our report that an increase in the PFC is likely to raise [technical problems.]—at the airports that [technical problems.]—increased PFC collections. Now, our view is that at the present moment, demand is around 70 to 80 percent of where it was in 2019.

And this increase in demand is at this point driven more by pandemic related concerns [technical problems.]—concerns. There is a fairly large literature on how increases in prices will affect consumer demand, and that certainly is an impact of that. However, we view the net benefits of increased collections to exceed the cost of it.

Senator CRUZ. Ms. Bewley, Mr. Donohue?

Ms. BEWLEY. Senator Cruz, thank you for the opportunity to speak with you today. You mentioned the Federal relief funds that airports have received. And thank you so much for that. It has been a godsend. And where the funds are being primarily used at my airport system and possibly throughout the Nation is to support payroll. And right now we have got almost several million dollars of employee costs that we are supporting. Both the CARES Act, the CRRSAA, and now ARPA are going to take us a little bit further into the future, which we greatly appreciate.

But when we are looking at aging infrastructure to the tune of tens of billions of dollars, up to over \$100 billion dollars, it is very difficult to then use that money for the projects when we still have the operation to manage and maintain. The PFC has been discussed for almost 20 years, as long as I can remember, and having it indexed to inflation shouldn't be a shock to the system. I think it is interesting that a PFC can create havoc on an airfare, but baggage fees don't.

So I think that we should find a happy medium where the airlines can get what they need, the airports can get what they need, and certainly be sensitive to what the passengers needs are.

Senator CRUZ. Mr. Donohue.

Mr. DONOHUE. Senator, a couple of answers to your questions. Number one, when it comes to airport funding, the CARES Act funding was a tremendous support mechanism for DFW because our revenues dropped so dramatically. Early on in the pandemic, I made the decision, told our employees no one would be furloughed, no one would see a reduction in compensation or benefits. And we also were able to support our concessionaires to the tune of tens of millions of dollars by waiving their rent. So not only it helped the airport, it helped our employees and helped our business partners.

And as it relates to future funding, in my humble opinion, there is no single solution. We would love to be part of the infrastructure bill discussions moving forward. As it relates to PFCs, because they have not been indexed, we have lost 40 percent of the value of the PFCs. AIP will continue to be an important funding mechanism.

And we do need to recognize as airports, we do know airlines will continue even during these difficult times in some airports to invest. And airports need to invest as well. And at DFW over the last five years, we have invested our own capital into projects. So in my opinion, we have to look at this holistically. Everyone needs to come to the table, to your point, with ideas. And we have to look at a macro solution.

Senator CRUZ. Thank you very much.

Senator SINEMA. Thank you, Senator Cruz. I now recognize Senator Rosen for 5 minutes of questions.

STATEMENT OF HON. JACKY ROSEN, U.S. SENATOR FROM NEVADA

Senator ROSEN. Thank you, Chair Sinema. Of course, Ranking Member Cruz. That is a really important hearing you are having today. Appreciate all the witnesses, of course, for being here. And but we sure have to revive our travel and tourism economy because in Nevada, travel and tourism are essential to our economy. And our airports serve as a gateway to the Silver State, my state, for millions of domestic and international travelers. In 2019, Las Vegas McCarran International Airport saw over 50 million passengers.

We generated nearly \$35 billion dollars in economic output and supported approximately a quarter of a million jobs. The Reno Tahoe International Airport saw a passenger increase of almost 6 percent in 2019, which was the fifth consecutive increase in year over year passenger growth. In short, our airports are growing. But the pandemic created steep declines in passenger traffic-related revenues, which exacerbated existing airport infrastructure needs and funding challenges.

So as the pandemic winds down in the United States and Congress takes up infrastructure legislation, funding for airports needs to be a few things, needs to be long term, needs to be dependable, and in order to promote certainty and allow for large capital projects and investments.

So Ms. Bewley and Mr. Donohue, how can Congress ensure that the investments we make in aviation infrastructure help revive the travel and tourism industry that was devastated by the pandemic, particularly excuse me, the projects that enhance the traveler experience? Excuse me, I will take a drink. Ms. Bewley, you can go first, please.

Ms. BEWLEY. Thank you. Senator Rosen. The Federal funding stream for projects can be used for improvements to outdated terminal facilities, upgrading HVAC filtration. At our airport alone, we could only upgrade to a certain level because the age of the system and we are very limited. So in order for us to even have a higher grade HVAC filter like hospitals, we would have to rip out our systems and start over. We have an aging facility that maybe only has 20 years of life left in it if we are lucky and we are probably going to need to expand our gates and our hold room.

So upgrading those systems are really important. This also supports the airlines because we can improve the gates, we can add space, we can build space for concessions, which then brings us the opportunity to enhance our revenue stream and outreach even further into the community to bring businesses into the airport so they, too, can take advantage of the opportunity of being around travelers. So those are just a few things that we can do.

On the airfield, the infrastructure out there—most airports are very old. Our airport is probably 50, 60 years old as far as our terminal, excuse me, our airfield. So the upgrades that we are talking about in our airfield safety enhancement program are going to take us far, far, far into the future. And those are good investments. And as far as making sure that the money is being used appropriately, well, if it is being funded through an FAA source, you know, they are the guardians of the AIP funds.

They are our connection to all of you who help supply the funds. So we would certainly follow the same processes that we always do to make sure the project is eligible under safety, security, customer service, you name it. And following all the grant assurances that we always do.

Senator ROSEN. So, and Mr. Donohue, how can we revive travel and tourism and make sure that the customer experience—how do we enhance that traveler experience while reviving our tourism and travel industry? Mr. DONOHUE. Thank you, Senator Rosen. And probably one of

Mr. DONOHUE. Thank you, Senator Rosen. And probably one of the examples that goes to your point is during the pandemic, we continued with a project at DFW were added gates to our international terminal. We just opened those gates in the last 60 days and that has significantly helped us as the travel has recovered.

It has provided the necessary relief for the airlines, and at the same time has increased the customer experience because we were able to incorporate new technology to improve the customer's experience through the terminal. I would also say that, you know, when you think of airports and you look at infrastructure investment, we typically go to terminals and terminals are critical. And they are critical to handle the volumes. They are critical to have that customer experience that you mentioned. But infrastructure at our airports is starting to get old.

And at DFW as I said, we are coming on 50 years. We have 130 bridges at DFW airport. We have 1,200 lane miles of road landside on our airport. And then when you look at all the airfield projects we do, many of those go to the heart of everything we are concerned about on this call, which is safe and secure operations.

So believe me when it comes to how we spend money at airports, yes, the customer experience is critical, but the infrastructure also goes to the heart of a safe and secure aviation system in this country.

Senator ROSEN. Well, I sure would agree with you there. And I am going to submit a couple questions for the record on how we what Congress can do to support our airport personnel, our airline employees, air traffic controllers as we recover from COVID thinking about their safety and security as well. Thank you, Madam Chair.

Senator SINEMA. Thank you so much, Senator Rosen. Senator Rosen, we actually don't have another Senator in the queue. If you would like, I can extend a few minutes for you to continue asking questions.

Senator ROSEN. Oh, well, that would be—that would be really great, because, you know, I just want to finish. You know, I am

grateful to be the Chairwoman of the Tourism, Trade and Export Promotion Subcommittee, part of Commerce. And so this really goes hand in hand with the Aviation Subcommittee. And as we think about coming out of COVID and the investments that we have an opportunity to make that will pay off in the long run, we know that the airports in 2019, I am sure you spoke about this, faced more than \$128 billion in new infrastructure needs, having a burden of nearly \$100 billion. And so our airport operators are just struggling and really not able to keep up pace with growing demand. And so there is a long way to go. So, Ms. Bewley, we provided our Nation with a lot of support

So, Ms. Bewley, we provided our Nation with a lot of support during COVID. And how are the airports using this—and we are talking a little bit—as you have been talking about critical infrastructure, I would say that being able to get there on the roads, being able to cross the bridges, the parking garages, all of that infrastructure that goes around, having the proper air traffic control towers, things we might not see but do benefit us all.

What do we also—what also do we need to do so we don't fall behind since we were right behind before COVID?

Ms. BEWLEY. Senator Rosen, ACI North America released a report last summer that outlined about \$115 billion in infrastructure needs over the next 5 years across the national airport system. And, you know, I think there is a lot to be gained from that study. And I think we all agree safety is always a top priority. And when you come to an airport, you want to be safe, you want to be secure, you want to have a customer experience, you want the infrastructure to be healthy and support the activity, and provide a great atmosphere for everyone, including the airlines. So all of that is very important.

And with the aging infrastructure in these outdated terminals, there is a lot of behind the scenes that probably isn't so pretty. I think Mr. Rinaldi mentioned that some of the towers are aging and crumbling. That is true. We have an aging tower at our small little airport at Ryan Airfield. It is a contract tower. It is not high priority, but it is just as important as another tower.

So I think infrastructure really needs to be looked at across many levels, crossing all sorts of avenues that we can find the best way to use the limited resources and support the national aviation system for the benefit of everyone.

Senator ROSEN. I think we make these investments are going to create jobs. There is going to be a big economic benefit to all of that. And as well as not just the people we move, but we move a lot of cargo at many of these airports. And I do have one last question, if I may, Madam Chair, to Mr. Miller.

Based on Rand's report, we are talking about, of course, DFW, Tucson, they are bigger cities, but we have, of course, Nevada, we have a lot of rural airports all across this country. There is the smaller airports, the rural airports. And what do we have to do to make sure that they don't get left behind as some of the bigger, more populated terminals and of course, in the larger cities with more volume, take up a lot of that funding.

Dr. MILLER. Thank you, Senator Rosen. The smaller airports in some ways have a vastly different experience than the larger airports, and in some ways they are facing some of the same struggles around dealing with the pandemic. The most important thing that we want to emphasize in this study regarding the differences between the airports is their sources of funding.

The larger airports because they have such a larger number of travelers flowing through them, are able to make much more use of funding sources like the passenger facility charge. The smaller airports, particularly noncommercial service airports that just don't focus on conserving a large number of commercial passengers, something like the passenger facility charge is unavailable to them or doesn't make sense for their number of passengers. So smaller airports are much more reliant on Federal grants, such as the AIP program.

Senator ROSEN. Thank you, I appreciate that, because our smaller airports, our rural airports are really important to those communities. Particularly we have a lot of places in Nevada that are great to go, but during wildfire season, they also host helicopters or other kinds of planes that need to land there, firefighters, supplies. So it is really important that we don't leave rural America behind. Thank you, Madam Chair. I really appreciate the extra time.

Thank you, Madam Chair. I really appreciate the extra time. Senator SINEMA. Absolutely. Thank you so much, Senator Rosen. We don't have any additional Senators in the queue to speak. But I will follow up with a question for both Ms. Bewley and Mr. Donohue. I just reintroduced, along with Senator Young and Senator Cruz, the Expedited Delivery of Airport Infrastructure Act.

Our bipartisan legislation would allow airports to use airport improvement program funds to incentivize contractors to finish airport construction projects ahead of schedule. Do you believe that this flexibility with AIP funding can help build infrastructure projects more efficiently at your airports?

projects more efficiently at your airports? Mr. DONOHUE. Yes, Senator. I will give you an example. The main arrival runway that we reconstructed during the pandemic, we did that for two reasons. Number one, we knew we had reduced operations, and if you are going to shut a runway, that is the time to do it. But we also did it because we were able to expedite the project and we saved over \$10 million doing the project.

And if we had had the ability to incentivize the contractors in this case, we probably would have been able to complete the project faster, and we probably would have been able to save even more. So we completely support this bill. We appreciate, Senator Sinema, your support and Senator Cruz's support because they will make a difference, and not only be more efficient, but also saving dollars.

Senator SINEMA. Thank you. Ms. Bewley?

Ms. BEWLEY. Senator Sinema, I absolutely support Sean's comments. We think the bill is a wonderful opportunity for us to be more efficient. As I mentioned before, we operate as business enterprises, and having the flexibility to do things more efficiently is wonderful for us, because then we can finish and move on to another project or open up a runway or open up a terminal that much quicker.

Senator SINEMA. Thank you so much. And with that, it looks like we do not have any additional Senators in the queue, so we have reached the end of today's hearing. I want to say thank you to all of the witnesses for your time and for your testimony and for your flexibility today. The hearing's record will remain open for two weeks until July 7th of 2021. Any Senators that would like to submit questions for the record for the hearing witnesses should do so by July 7. And we ask that our witness responses be returned to the committee by July 14, 2021. Thank you again so much. We are adjourned. [Whereupon, at 4:22 p.m., the hearing was adjourned.]

APPENDIX



ALASKA AIR CARRIERS ASSOCIATION 2301 Merrill Field Drive A-3, Anchorage, Alaska 99501 907-277-0071 www.alaskaaircarriers.org

Board of June 25, 2021 Directors for 2021-2022 Matt Atki President AIR ARCTIC & VARBELOW'S AIR VENTURES The Honorable Maria Cantwell, Chair The Honorable Roger Wicker, Ranking Member U.S Senate Committee on Commerce U.S Senate Committee on Commerce Science, and Transportation Science, and Transportation Susan Hoshaw 425 Dirksen Senate Office Building 512 Hart Senate Office Building Vice President EVERTS AIR Washington, DC 20510 Washington, DC 20510 Scott Habberstad Secretary ALASKA AIRLINES The Honorable Kristen Sinema, Chair The Honorable Ted Cruz, Ranking Member Wilfred Ryan Treasurer RYAN AIR Subcommittee Aviation Safety, Subcommittee Aviation Safety, Operations, and Innovation Operations, and Innovation Dan Owen ATT 127A Russell Senate Office Building 317 Hart Senate Office Building Washington, DC 20510 Washington, DC 20510 Tom Soderholm SMOKEY BAY AIR Bryan Miller DASH RE: Alaska Aviation Transportation Infrastructure Needs Dear Chair Cantwell, Ranking Member Wicker, Chair Sinema, and Ranking Member Cruz: Dan Knesek Grant Brien Salazar TAQUAN AIR The Alaska Air Carriers Association is a non-profit organization whose mission is to support and advocate for the commercial aviation industry in Alaska. Our membership includes Part 91, Part Gideon Garcia NAC 135, 125, and 121 air carriers who provide services essential to Alaska's communities and businesses statewide Eric Zentler McGriff As the Committee considers the current state of the existing aviation infrastructure within the Alan Larson TransNorthern United States, the needs of Alaska should not be overlooked. AACA asks our comments below be included in the hearing record, and be considered during the development of any Scott VanValin Island Air Express infrastructure package. Executive The FAA recently advanced another safety initiative, FAASI, which follows multiple studies over decades with same conclusions that Alaska is heavily reliant on aviation and lacks the level of Director infrastructure available in the contiguous states. Please consider advancing Alaska's aviation Jane Dale ALASKA AIR CARRIERS ASSOCIATION infrastructure needs. Alaska Aviation Infrastructure Needs AACA asks for your consideration to fund aviation transportation infrastructure in Alaska. More than 80% of Alaska's rural communities and associated businesses rely on commercial aviation for transportation of goods and services including emergency medivacs. Alaska's aviation infrastructure remains well behind existing infrastructure available in the lower 48 contiguous states and as a result, Alaska's aviation safety record continues to suffer. The commercial aviation community continues to advocate for new infrastructure to expand the availability of aviation weather reporting stations in Alaska, increase the utilization of instrument approach procedures, reduce communication gaps with FAA Air Traffic Control and

The Alaska Air Carriers Association Supports and Advocates for the Commercial Aviation Community

Alaska Transportation Needs Page 2

FAA Flight Services, remedy gravel runway issues and improve the availability in provide Doppler Radar Weather services in Alaska. Funding is needed to support the following AACA priorities:

Infrastructure

- The development and deployment of 160 VWOS weather stations in Alaska, roughly \$32M
- Transfer of 35 AWOS weather stations to the FAA for ownership and maintenance, \$54M • Expansion of the ADSB Coverage in Alaska to Kodiak, Eastern Alaskan and other non-served areas. (Available through FAA –SBS Offices)
- Expansion of Doppler Radar Weather Stations in Alaska •
- Development of an additional LPV/LP WAAS GPS instrument approach procedures and
- communication services.Improvements to rural airports with documented runway surface concerns.

If you have any questions, please do not hesitate to contact Jane Dale at 907.717.6724.

Best regards,

Matt artinson fare al

Matt Atkinson, President Alaska Air Carriers Association

Jane Dale, Executive Director Alaska Air Carriers Association

ALASKA AIR CARRIERS ASSOCIATION The Alaska Air Carriers Association Supports and Advocates for the Commercial Aviation Community

Response to Written Question Submitted by Hon. Tammy Duckworth to Danette Bewley

In Airports Council International—North America's (ACI–NA) most recent infrastructure needs study, *Building the Runway to Economic Growth*, America's airports have identified \$115 billion in necessary infrastructure projects at their facilities over the next five years. With limited Federal funds available and an outdated Federal cap on local user fees, airports often turn to financial marketplaces to help finance their infrastructure projects. While not a substitute for new, direct investment in airports, increasing the number of financing options and tools available to airports helps them improve their infrastructure more quickly and in a more costeffective manner.

The current Transportation Infrastructure Finance and Innovation Act (TIFIA) program at DOT is limited to surface transportation, but several airports have been exploring the feasibility of financing transit-connected projects at their facilities. That has sparked an interest among industry and government in finding ways to incorporate more airport development projects into the TIFIA program. With significant infrastructure needs in airport terminals nationwide, the airport industry strongly supports the bipartisan and bicameral *TIFIA for Airports* legislation you have introduced with Sen. Cornyn, Rep. Garamendi, and Rep. Babin that would expand the TIFIA program to include all Passenger Facility Charge (PFC)-eligible projects at airports. Making additional airport development projects explicitly eligible for TIFIA would allow airports to access financing at lower borrowing costs and with more flexible repayment terms than through traditional markets. In this time of economic uncertainty, with the current TIFIA fund running a surplus, your legislation would help airports across the country—including small hubs like Tucson International Airport—participate in this important alternative financing program.

Response to Written Question Submitted by Hon. Tammy Duckworth to Paul Cullen

Transportation Infrastructure Finance and Innovation Act (TIFIA) financing.

Question. On September 27, 2019, the Kansas City Star published an article about the Kansas City International Airport's interest in the TIFIA program, in which a Southwest Airlines representative said the airlines was supportive of the TIFIA effort. Mr. Cullen, do you supporting extending TIFIA to airport-related projects?

Answer. Yes, Senator Duckworth, Southwest Airlines supports extending eligibility for Transportation and Infrastructure Finance and Innovation Act (TIFIA) credit assistance to airport projects. Today, most airports have access to significant capital resources, but TIFIA would be another good tool in the broader tool box. We appreciate your bipartisan efforts to ensure airports have the same access to TIFIA funds that other projects—such as highways and transit—already enjoy today. Taxpayers will be well-protected because airports have ample access to multiple sources of revenue today. In other words, airports are well-positioned to pay-back TIFIA loans in addition to the non-TIFIA bonds that they can access today. Existing sources of revenue for commercial airports include airline-paid rents/landing fees (the largest source of revenue), existing PFC collections, AIP grants, supplemental Federal funding, and fees collected from non-airline users, parking, concessions, rental cars, taxi/ride share services, advertising, etc. As a result, we think lenders are well-protected and it makes sense to provide equitable access to the TIFIA program for our airport partners. Thank you.

Response to Written Question Submitted by Hon. Tammy Duckworth to Sean Donohue

Question. Mr. Donohue, Senator Cornyn and I recently reintroduced the TIFIA for Airports Act (S.1715), which would expand TIFIA credit assistance to state and local airport projects and was successfully included in the Surface Transportation Reauthorization Act of 2021. Do you support extending TIFIA to airport-related projects? How would expanding TIFIA benefit airports such as Dallas Fort Worth International Airport? Answer. DFW Airport supports extending TIFIA for airport related projects. TIFIA provides airports with financing options at attractive interest rates. This is an important ontion given the large capital expenses associated with renovation and

Answer. DFW Airport supports extending TIFIA for airport related projects. TIFIA provides airports with financing options at attractive interest rates. This is an important option given the large capital expenses associated with renovation and expansion of airport facilities. DFW encourages the Senate to reduce the significant administrative burdens of the TIFIA program to make it a more attractive option for airports.

 \bigcirc