the AVIATION INNOVATION, REFORM & REAUTHORIZATION AGI



THE HOUSE TRANSPORTATION & INFRASTRUCTURE COMMITTEE

## CONTENTS

TRANSFORMATIONAL REFORM:	
Ensuring the Future of American Aviation	3
THE CASE FOR AIR TRAFFIC CONTROL REFORM:	
Ending Decades of Delay, Waste, & Instability	4
A SAFE, EFFICIENT, MODERN SYSTEM:	
Establishing an Independent, Not-for-Profit ATC Corporation	6
IMPROVING AMERICA'S COMPETITIVENESS:	
Streamlining and Reforming the FAA Certification Processes	8
ENHANCING AVIATION SAFETY	10
IMPROVING AIR SERVICE FOR CONSUMERS	12
MODERNIZING OUR NATION'S AIRPORT INFRASTRUCTURE	14
SAFELY AND EFFICIENTLY INTEGRATING UNMANNED AIRCRAFT SYSTEMS	15
SUMMARY OF THE AIRR ACT	16

## TRANSFORMATIONAL REFORM:

## Ensuring the Future of American Aviation

Ever since the first flight of the Wright Brothers, the United States has led the world in moving people and goods by air. The U.S. aviation system, the busiest in the world, continues to grow, and in just over a decade it will be responsible for transporting one billion passengers annually. In addition, aviation provides millions of American jobs and is responsible for over 5% of our GDP.

However, the strain on this vital transportation system is also growing. The U.S. aviation system has not kept pace with technology, needs, and demands. Our Nation's air traffic control (ATC) system is based on World War II-era radar technology, the Federal Aviation Administration's (FAA) 34-year effort to modernize ATC has been costly and ineffective, American innovation in the industry continues to be stifled by bureaucracy, and federal aviation funding remains subject to political uncertainty and perpetual budget battles in Washington.

As a result, passengers and system users will feel the worsening impacts of our increasingly inefficient, costly, outdated aviation system in the coming years; more tax dollars will be squandered in failed modernization efforts; and we will lose our long-standing lead in aviation to our global competitors.

With U.S. aviation at a critical crossroads, it's time for a transformational change.

The Aviation Innovation, Reform, and Reauthorization (AIRR) Act will help ensure a vibrant future for our Nation's aviation system. The underlying principles of the legislation are:

- PROVIDING A SAFE, EFFICIENT, MODERN AVIATION SYSTEM
- BENEFITING PASSENGERS WITH FEWER DELAYS AND GREATER RELIABILITY
- FOSTERING INNOVATION
- KEEPING AMERICA COMPETITIVE IN THIS VITAL ECONOMIC SECTOR



## THE CASE FOR AIR TRAFFIC CONTROL REFORM:

### Ending Decades of Delay, Waste, & Instability

Our aviation system has served the Nation well over the years, but it is not keeping up with modern needs and demands. According to the FAA, aviation delays and congestion, which ripple throughout the entire system, currently cost passengers, shippers, aircraft operators, and our economy over \$30 billion annually. ATC delays are up at 13 of our 20 largest airports, and many domestic flights take longer now than they did decades ago. Increasing air traffic levels will only further burden our antiquated ATC system.

The federal government's record of failed, abandoned, and delayed ATC modernization programs continues to grow, and the Government Accountability Office (GAO), the DOT Inspector General, multiple bipartisan federal commissions, and aviation stakeholders have questioned the FAA's ability to implement the agency's



most recent modernization effort, NextGen. The FAA has spent approximately \$6 billion to date on NextGen, but passengers, shippers, and aircraft operators have realized few benefits.

The DOT IG has warned that NextGen implementation costs for government and industry – initially estimated at \$20 billion each - could end up costing as much as \$120 billion and may take an additional decade, by which time the technology will likely be obsolete.

The call for ATC reform is not an indictment of the FAA's leadership team – this is a problem that has transcended administrations. Nor

is it a criticism of our air traffic controllers and FAA employees. The problem is a governance and financing structure that has remained largely unchanged since the FAA was created in 1958, and is broken beyond repair. The agency is a vast government bureaucracy of 46,000 employees – not a high-tech service provider. As such, it simply is not set up to manage risks with large capital projects, pursue the most cost-efficient investments, and manage people to produce results.

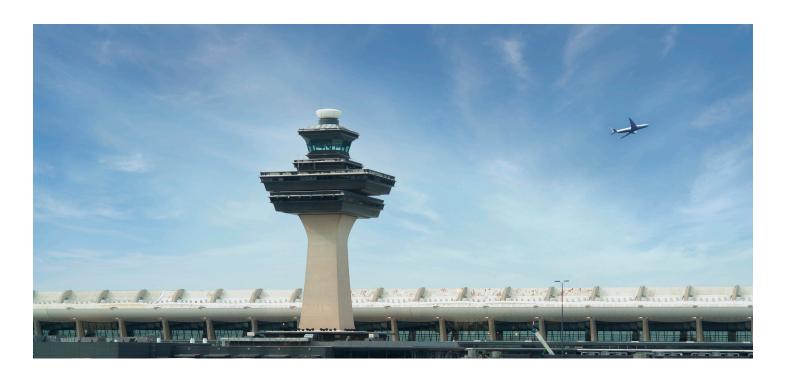
### For example:

- Between 1996 and 2014, the FAA's total budget nearly doubled, yet during this period, air traffic levels dropped by 20 percent, meaning taxpayers are now paying the FAA nearly twice as much to do only 80 percent of the work they were doing in the 1990s.
- Of 30 NextGen programs reviewed, GAO found that costs increased by \$4 billion, or 70 percent, with half the projects delayed by an average of four years.

In addition, political interference has hampered efforts to consolidate and realign ATC facilities and contributed to the FAA's inability to implement NextGen procedures and technologies.

Today's budget uncertainty has contributed to significant cost increases and delayed delivery of ATC modernization programs. Sequestration, employee furloughs, and government shutdowns have also had a devastating impact. The last FAA reauthorization took five years and 23 short-term extensions of existing law before the next long-term authorization was passed.

The bottom line is, after three decades of various modernization attempts, billions of taxpayer dollars invested, inherent funding instability, and political interference, our Nation's aviation system is not positioned to meet projected growth in air passenger and cargo traffic demand.



## A SAFE, EFFICIENT, MODERN SYSTEM:

## Establishing an Independent, Not-for-Profit ATC Corporation

AIRR Act reforms will ensure a safe, efficient, modern aviation system for our future. The bill establishes a federally-chartered, fully independent, not-for-profit corporation to operate and modernize our Nation's air traffic (AT) services, free from the bureaucratic inertia and funding uncertainty that have plagued the FAA for decades. Our Nation's air traffic controllers will transfer to the corporation, and the FAA will remain responsible for the continued safety of the system.

This is not a new form of federal bureaucracy or a government-sponsored enterprise (GSE). For example, the not-for-profit corporation cannot request or receive any money from the Treasury, and the bill clearly states there is to be no explicit or implicit financial backing of the federal government on any obligation it incurs.

- Ensures that safety remains the highest priority of our aviation system the FAA will retain its safety oversight and regulatory missions, and separating AT services will allow the FAA to focus more on the vitally important safety mission
- Establishes a board of directors representing the aviation system users and the public interest to govern
- the corporation and set priorities; steps are included to prevent conflicts of interest, political interference, and board domination by any one group
- Creates operating efficiencies that can save taxpayers billions of dollars annually and prevent the waste of billions more on failed federal modernization efforts
- Severs AT services modernization from the highly inefficient and costly federal procurement system
- Expedites NextGen and other capital projects by providing a stable financing mechanism and enhanced collaboration and involvement of controllers and other stakeholders
- Prioritizes avoiding any adverse effects on safety and maintaining the day-today function of AT services and NextGen implementation during transition to the corporation

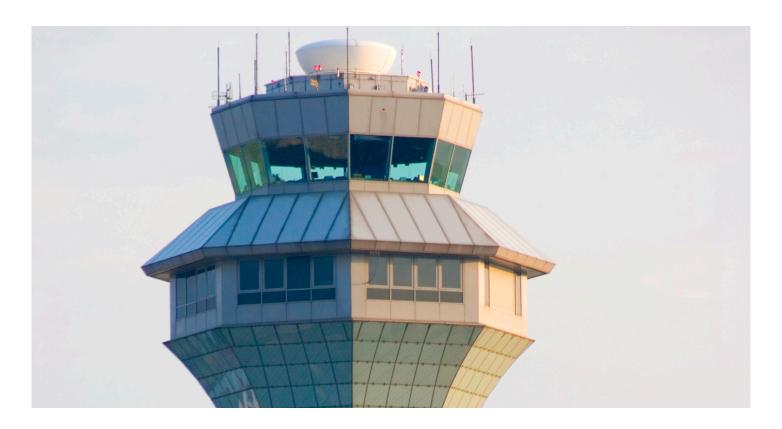


- Encourages capital reinvestment by requiring any excess revenues to be reinvested back into AT services system
- Transfers ATC federal employees to the corporation
- Ensures adequate funding for the remaining FAA functions, including safety regulation, airport and air carrier oversight, certification, and the Airport Improvement Program

Separating air traffic services from the federal bureaucracy is not a revolutionary concept. The Clinton and Bush Administrations attempted such reforms, although at that time far fewer test cases existed for examination and comparison. However, in the last 28 years, over 50 countries – including Germany, Australia, New Zealand, Canada, and the United Kingdom – have successfully separated AT services from the safety regulator. Consistently, where this has occurred:

- Safety has been maintained or improved
- AT services have been modernized
- AT services have been improved
- Costs have been generally reduced

The United States has a larger and more complex airspace system, but we also have the talent, energy, and resources to create a unique AT services model that achieves the benefits other nations have experienced.



## **IMPROVING AMERICA'S COMPETITIVENESS:**

Streamlining and Reforming the FAA Certification Processes

The U.S. aviation manufacturing industry is a critical sector of our economy, contributing billions of dollars and supporting millions of jobs.

All new aircraft and aviation products are subject to FAA certification prior to their sale and use. Consequently, the FAA's certification processes have a significant impact on our Nation's ability to manufacture, innovate, market, and operate the most advanced, safest products. Today, as U.S. aviation manufacturers face intensifying competition from manufacturers in other countries, such as China, France,

Brazil, and Canada, unnecessary delays in the certification processes create a significant disadvantage in an increasingly competitive global market.

The FAA bureaucracy and red tape in the certification of new aviation technologies not only stifle domestic innovation and undermine our competitiveness, they put American jobs at risk.

While the United States has been the gold standard in global aviation, we are quickly losing our lead. Other countries view their aerospace and aviation manufacturing sectors as economic engines and support



them with favorable policies. The FAA must continue to ensure the safety of the system, but the agency's certification processes must become more streamlined than those currently in place. Under the status quo, our lead in the aviation industry will continue to dwindle, and may vanish, just as in other industries we once led during the last century.

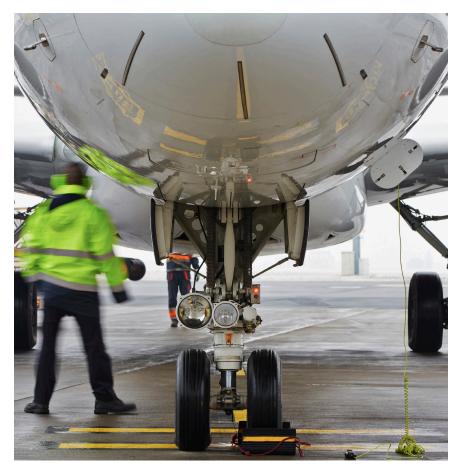
The AIRR Act enhances U.S. companies' ability to compete globally and get their products to market faster.

- Enhances U.S. companies' ability to compete and get products to market faster
- Streamlines the FAA's certification processes while maintaining strong safety oversight
- Requires greater utilization of current FAA authority to delegate certain certification functions
- Improves FAA workforce training and development for FAA inspectors and engineers
- Provides for greater FAA collaboration with industry and labor stakeholders, as well as increased transparency and accountability for both the FAA and industry
- Ensures consistency in regulatory interpretation among FAA regional offices and headquarters
- Establishes clear certification performance objectives and metrics, and national goals by which Congress and interested parties can better measure progress
- Addresses delays in foreign certification of U.S. products abroad and requires the FAA to promote U.S. aerospace standards abroad



## ENHANCING AVIATION SAFETY

One of the foremost principles of the AIRR Act is to ensure that the United States continues to have the safest aviation system in the world. The AIRR Act contains a number of important safety provisions.



The AIRR Act allows the FAA to strengthen its focus on regulating safety, and contains additional provisions to address recent and emerging safety concerns.

The AIRR Act sets a hard deadline for the FAA to complete a centralized database of airline pilot records within 180 days of enactment. The FAA was directed to establish this database in the Airline Safety and Federal Aviation Administration Extension Act of 2010 (P.L. 111-216). While the FAA has implemented many of these provisions, the agency has not completed work on the database.

In light of the disappearance of Malaysia Airlines Flight 370 on March 8, 2014, the

AIRR Act directs the FAA to work with the International Civil Aviation Organization (ICAO) and other countries on developing standards to improve the tracking of aircraft. The FAA is also required to initiate a study of aircraft data access and retrieval technologies to determine if the technologies provide improved access and retrieval of aircraft data and cockpit voice recordings in the event of an aircraft accident.

The AIRR Act directs the FAA to conduct a risk assessment on cockpit safety and identify methods to mitigate any risks to cockpits on commercial aircraft. The crash of Germanwings Flight 9525 on March 24, 2015, which was deliberately caused by the co-pilot, underscores the need to ensure the effectiveness of existing procedures on U.S. aircraft to protect the safety and integrity of the cockpit, flight crew, and ultimately those in the passenger cabin.

The AIRR Act requires the FAA to establish a panel of aviation safety experts to evaluate existing methods for training flight crews to ensure that pilots can safely fly manual approaches, and to provide recommendations to the FAA Administrator. In addition, the AIRR Act directs the FAA to develop a process to verify that airline training programs include measures to train pilots on manual flying skills and how to monitor cockpit automation systems, and to develop metrics that airlines can use to evaluate pilot proficiency in these areas. This requirement addresses a factor in the crash of Asiana Flight 214 in San Francisco on July 6, 2013.

The AIRR Act improves the safety benefit of the Aviation Safety Action Program (ASAP) and voluntarily submitted aviation safety information for pilots. The bill requires automatic acceptance of ASAP reports into the program until a special committee can meet and review the reports. Voluntary safety reporting programs are important collaborative safety tools, but currently, weeks may pass between special committee meetings to review ASAP reports, and therefore the implementation of important safety enhancements may be needlessly delayed.

- Ensures the FAA safety workforce is utilized efficiently
- Enhances FAA safety workforce training
- Strengthens voluntary safety reporting programs for pilots
- Expedites the establishment of an airline pilot records database at the FAA
- Addresses alternative methods of tracking aircraft over oceans



- Addresses cockpit safety by directing the FAA to identify any safety vulnerabilities and propose methods to mitigate risks
- Ensures that pilots are sufficiently trained on manual flying skills and how to monitor cockpit automation systems
- Strengthens general aviation (GA) safety by streamlining the approval process for the installation of safety-enhancing technologies on small GA airplanes
- Directs the FAA to develop a comprehensive plan to address cybersecurity vulnerabilities
- Streamlines the FAA's medical certification process for certain small aircraft pilots
- Establishes a Lithium Ion Battery Safety Advisory Committee to foster collaboration on lithium ion battery safety in air transportation
- Directs the Secretary to issue regulations consistent with international technical instructions banning lithium ion batteries as cargo on passenger aircraft

## IMPROVING AIR SERVICE FOR CONSUMERS

Modernizing the system, increasing its efficiency, and lowering the costs of the system will provide significant benefits to consumers. In addition, the AIRR Act includes other provisions to improve service for passengers and communities across the country.

The AIRR Act requires airlines to refund baggage fees to passengers if their bags are lost or delayed for more than 24 hours on domestic flights.

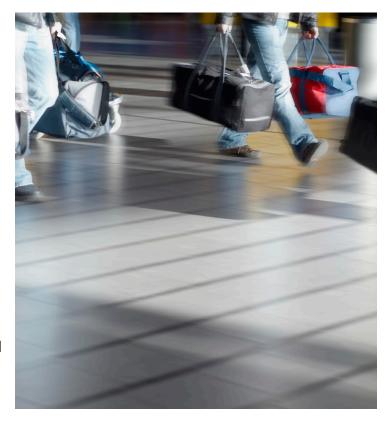
The AIRR Act prohibits the use of cell phones and mobile devices for voice communication during commercial flights.

The AIRR Act extends the Advisory Committee for Aviation Consumer Protection, an advisory body to DOT that is responsible for evaluating the Department's aviation consumer protection programs and

recommending new programs as necessary. Since its inception in 2012, the committee has held eight meetings on a wide range of consumer topics, including ticket refunds, baggage issues, disclosure of codeshare flights, disclosure of baggage and ancillary fees, discrimination, and flight delays.

The AIRR Act ensures that families with children are notified, before tickets are booked, when they are assigned seats that are not together on the selected flight. While flight crews can frequently accommodate families once onboard, consumers should be notified before booking tickets when their seats will be separated.

The AIRR Act requires large and medium commercial airports to provide clean, private rooms in every terminal for nursing mothers.



The AIRR Act requires airlines to provide passengers, electronically or in writing, information that explains their consumer rights.

The AIRR Act authorizes DOT to establish a smartphone application for the submission of consumer complaints.

The AIRR Act continues the reforms to the Essential Air Service (EAS) Program and funds the reformed program for the life of the bill.

The AIRR Act continues the Small Community Air Service Development Program (SCASDP), which has helped maintain limited service to small and rural communities.

### IN SUMMARY, THE AIRR ACT:

- Requires airlines to refund baggage fees for bags delayed more than 24 hours on domestic flights
- · Bans use of cell phones for in-flight voice communications on scheduled passenger flights
- Ensures that airlines notify passengers of their consumer rights
- Extends the Advisory Committee for Aviation Consumer Protection
- Authorizes DOT to establish a smartphone application for consumer complaints
- Requires large and medium airports to provide private rooms in every terminal for nursing mothers
- · Requires airlines to notify families, before tickets are booked, if family members are assigned seats that are not together
- Maintains reforms to programs for service at small and rural airports



# MODERNIZING U.S. AIRPORT INFRASTRUCTURE

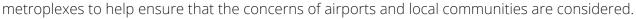
Airports are essential to the aviation system and the 11.3 million jobs and \$1.5 trillion in economic activity the system generates. Airports are the physical anchors of this vast and complex transportation network, responsible for efficiently receiving and dispersing millions of passengers and billions of dollars' worth of cargo across our Nation and around the world every day. They connect our communities, create jobs, and help grow the economy.

The FAA predicts that enplanements will increase to more than 800 million passengers by 2017, and reach

the one billion mark by 2029. With increasing passenger levels, our Nation's airports are facing significant capital needs.

The AIRR Act provides robust funding for the FAA's Airport Improvement Program (AIP), which funds construction of critical infrastructure at airports of all sizes. Continuing the AIP program is essential to the long-term viability of airports across the country and the entire National Airspace System.

The AIRR Act also directs the FAA to utilize community input for NextGen flightpaths located in





- Provides robust funding for the Airport Improvement Program
- Removes unnecessary restrictions on the Passenger Facility Charge, allowing airports to more effectively finance projects that improve airport infrastructure and benefit the traveling public
- Streamlines the Passenger Facility Charge application process to increase airport flexiblity in financing projects and reduce both airport and federal administrative costs
- Directs the FAA to utilize community input for NextGen flightpaths located in metroplexes to help ensure that the concerns of airports and local communities are considered, and conduct a review of the effects of aircraft noise exposure on communities around airports.
- Continues and enhances the Federal Contract Tower Program

## SAFELY & EFFICIENTLY INTEGRATING **UNMANNED AIRCRAFT SYSTEMS**

The United States has long been the global leader in aviation, and the recent development and growth of Unmanned Aircraft Systems (UAS) represents a tremendous economic opportunity.

According to the FAA, \$89 billion will be invested globally in UAS over the next 10 years, and major U.S. companies are rapidly investing in UAS technology. There are many valuable potential UAS applications in real estate, agriculture, infrastructure maintenance, and other areas, with many more on the horizon. But like other new technologies, UAS offer not only new opportunities, but challenges as well. The first and foremost challenge is ensuring their safe integration into the National Airspace System (NAS).

The FAA Reform and Reauthorization Act of 2012 contained provisions directing the FAA to take steps toward safely integrating UAS into the NAS by September 2015. Among other things, Congress directed the FAA to create test ranges and regulations for UAS. However, the FAA has not yet fulfilled its mandate. As a result, major U.S. companies have taken some of their early UAS research and development activities to other countries because FAA regulations are too burdensome.

The AIRR Act provides additional tools and flexibility for the FAA to safely and responsibly integrate UAS into the aviation system, respond more quickly to technology developments, and foster innovation in this growing and rapidly evolving industry.

- Expedites safe deployment of commercial UAS by creating a risk-based permitting process
- Promotes greater utilization of UAS test ranges
- Fosters development of sense-and-avoid technology at UAS test ranges
- Establishes a streamlined process for the FAA to permit the operation of small UAS for certain uses
- Directs the FAA to conduct a pilot program to evaluate UAS detection and mitigation technology
- Facilitates utilization of UAS in support of firefighting operations
- Directs the DOT Inspector General to assess the FAA's small UAS registration system and requires FAA to develop and track metrics to assess compliance with and effectiveness of the system
- · Establishes a government-industry advisory committee to assess the necessity and feasibility of a low altitude unmanned aircraft system traffic management system
- Directs DOT to conduct a study on the privacy implications of UAS operations

# REFORM & REAUTHORIZATION ACT

### SUMMARY

The Aviation Innovation, Reform, and Reauthorization (AIRR) Act is transformational legislation focused on:

- Providing a safe, efficient, modern aviation system
- Benefiting passengers with fewer delays and greater reliability
- Fostering innovation
- Keeping America competitive in this vital economic sector

To help achieve these goals, the AIRR Act provides comprehensive reform of the Federal Aviation Administration (FAA) and the Nation's aviation system. The legislation will help modernize the antiquated U.S. air traffic control system, streamline aviation equipment and aircraft certification processes, improve service for consumers, strengthen the FAA's critical safety and regulatory missions, provide for airport infrastructure across the country, and enhance the safe integration of unmanned aircraft systems.

### REFORMING AND MODERNIZING AIR TRAFFIC CONTROL (ATC)

- Establishes an independent, not-for-profit corporation, to provide and modernize air traffic (AT) services, governed by a board representing the system's users and the public interest
- Keeps the FAA in charge of safety, and prioritizes safety during transition
- Establishes a stable, self-sustaining, cost-based user fee structure
- Transfers ATC federal employees to the corporation
- Severs AT modernization from the inefficient, costly federal procurement system
- · Expedites NextGen modernization through collaboration and involvement of controllers and other stakeholders
- · Creates an opportunity for the corporation to increase operating efficiencies that can save taxpayers billions of dollars annually, and prevents the waste of billions more on failed federal AT modernization efforts
- Requires any excess revenues to be reinvested back into the AT system

### STREAMLINING FAA CERTIFICATION PROCESSES

- Enhances U.S. companies' ability to compete and get products to market faster
- · Streamlines the FAA's certification processes while maintaining strong safety oversight
- · Requires greater utilization of current FAA authority to delegate certain certification functions
- Improves FAA workforce training and development for FAA inspectors and engineers
- · Provides for greater FAA collaboration with industry and labor stakeholders, as well as increased transparency and accountability for both the FAA and industry
- Ensures consistency in regulatory interpretation among FAA regional offices and headquarters
- Establishes clear certification performance objectives and metrics, and national goals by which Congress and interested parties can better measure progress
- · Addresses delays in foreign certification of U.S. products abroad and requires the FAA to promote U.S. aerospace safety standards abroad

#### **ENHANCES AVIATION SAFETY**

- Ensures the FAA safety workforce is utilized efficiently
- · Enhances FAA safety workforce training
- · Strengthens voluntary safety reporting programs for pilots
- Expedites the establishment of an airline pilot records database at the FAA
- · Addresses alternative methods of tracking aircraft over oceans
- · Ensures that pilots are sufficiently trained on manual flying skills and how to monitor aircraft automation systems
- Addresses cockpit safety by directing the FAA to identify any safety vulnerabilities and make recommendations
- Strengthens general aviation (GA) safety by streamlining the approval process for the installation of safetyenhancing technologies on small GA airplanes
- · Directs the FAA to develop a comprehensive plan to address cybersecurity vulnerabilities
- Streamlines the FAA's medical certification process for certain small aircraft pilots
- Establishes a Lithium Ion Battery Safety Advisory Committee to foster collaboration on lithium ion battery safety in air transportation
- · Directs the Secretary to issue regulations consistent with international technical instructions banning lithium ion batteries as cargo on passenger aircraft

### IMPROVING SERVICE FOR CONSUMERS

- · Requires airlines to refund baggage fees for bags delayed more than 24 hours on domestic flights
- · Bans use of cell phones for in-flight voice communications on scheduled passenger flights
- Ensures that airlines notify passengers of their consumer rights
- Extends the Advisory Committee for Aviation Consumer Protection
- · Authorizes DOT to establish a smartphone application for consumer complaints
- · Requires large and medium airports to provide private rooms in every terminal for nursing mothers
- · Requires airlines to notify families, before tickets are booked, if family members are assigned separated seats
- · Maintains reforms to programs for service at small and rural airports

### **MODERNIZING AIRPORT INFRASTRUCTURE**

- Provides robust funding for the Airport Improvement Program
- · Removes unnecessary restrictions on the Passenger Facility Charge, allowing airports to more effectively finance projects that improve airport infrastructure and benefit the traveling public
- · Streamlines the Passenger Facility Charge application process to increase airport flexiblity in financing projects and reduce both airport and federal administrative costs
- Directs the FAA to utilize community input for NextGen flightpaths located in metroplexes to help ensure that airports and local communities are part of the process

### SAFELY INTEGRATING UNMANNED AIRCRAFT SYSTEMS (UAS)

- Expedites safe deployment of commercial UAS by creating a risk-based permitting process
- Promotes greater utilization of UAS test ranges
- Fosters development of sense-and-avoid technology at UAS test ranges
- Directs DOT to conduct a study on the privacy implications of UAS operations
- Establishes a streamlined process for the FAA to permit the operation of small UAS certain uses
- · Directs the FAA to conduct a pilot program to evaluate UAS detection and mitigation technology at airports
- Directs the DOT IG to assess FAA's small UAS registration system and FAA to develop and track registration metrics

# AIRRACT THE AVIATION INNOVATION, REFORM, AND REAUTHORIZATION ACT





