
A Journalist's Guide to Understanding North American Airports

January 2025

Aviation is a dynamic and multifaceted industry that plays a vital role in global connectivity, commerce, and security. Airports serve as hubs of activity where diverse stakeholders, including airport operators, government agencies, airlines, and concessionaires, collaborate to ensure the safe, secure, efficient, and enjoyable movement of passengers and cargo. However, the complexity of airport operations and the specialized terminology can pose challenges for journalists covering aviation topics.

This guide is designed to provide journalists with a comprehensive resource to navigate the nuances of air travel. It includes definitions of key aviation terms, an overview of airport safety and security operations, and insights into the roles and responsibilities of various stakeholders. From understanding the government regulatory environment to grasping the function of concessions in enhancing passenger experiences, this guide offers clarity and context for accurate and informed reporting.

By demystifying aviation terminology and outlining the collaborative efforts behind airport operations, this resource aims to empower journalists to craft compelling, precise, and authoritative stories. Whether reporting on new airline routes, security developments, or emergency responses, this guide will be an indispensable tool for navigating the world of aviation.

Airports as Economic Drivers

North America airports are powerful economic engines that create and sustain jobs in local communities across North America. Collectively, U.S. airports employ more than 1.3 million people and account for \$1.2 trillion in economic activity—or seven percent of the total U.S. workforce and eight percent of GDP. Canadian airports support 405,000 jobs and contribute C\$35 billion to Canada's GDP.

U.S. Airport Ownership and Governance

Although nearly all U.S. airports are owned by states, including state and multi-state chartered port and airport authorities, or local governments, airports are required by the federal government to be as self-sustaining as possible, and receive little or no taxpayer support. This means that airports must operate like businesses – funding their operations from their revenue, and thoughtfully and diligently planning funding for major improvement projects – which can often be very expensive. The airport, capital markets, the airlines, and their passengers provide funds to help pay for these long-term projects.

Government Partners

AIR SPACE REGULATORS

Federal Aviation Administration (FAA)

In the United States, the Federal Aviation Administration's mission is to provide the safest, most efficient aerospace system in the world. According to the administration's website, the FAA is responsible for all programs related to airport safety and inspections and standards for airport design, construction, and operation. In addition, the FAA is also the air navigation service provider in the United States, which manages the national airspace system and provides air traffic control services within it. www.faa.gov

Transport Canada (TC)

Transport Canada's mission is to promote safe and secure transportation systems in Canada. Transport Canada focuses their services on upholding designated safety standards and security requirements for Canadian airports. Unlike the FAA, Transport Canada does not serve as the Canadian air navigation service provider. This role is provided by NAVCANADA, a non-profit, private, corporation. www.tc.gc.ca

AVIATION SECURITY

Transportation Security Administration (TSA)

Formed following September 11, 2001, the Transportation Security Administration (TSA) screens passengers and baggage at airport security checkpoints to ensure the safety and security of the traveling public. www.tsa.gov

Canadian Air Transport Security Authority (CATSA)

The Canadian Air Transport Security Authority (CATSA) is responsible for passenger, baggage, and employee screening at Canadian airports. www.catsa.gc.ca

Local Law Enforcement Agency

Depending on the security incident or circumstance, security related events may fall under the jurisdiction of a local law enforcement agency. The airport operator may be able to connect you with the appropriate media contact for the local law enforcement agency responsible for responding to the incident.

BORDER SECURITY

U.S. Customs & Border Protection (CBP)

U.S. Customs and Border Protection (CBP) is a law enforcement agency in charge of border management and control across the United States. CBP screens passengers and cargo entering the United States through airports. www.cbp.gov

Canada Border Services Agency (CBSA)

The Canada Border Services Agency (CBSA) ensures the security and prosperity of Canada by managing the access of people and goods to and from Canada.

www.cbsa-asfc.gc.ca

AVIATION INCIDENTS AND ACCIDENTS

National Transportation Safety Board (NTSB)

When serious transportation incidents occur at airports in the United States, the National Transportation Safety Board (NTSB) has jurisdiction to conduct a full investigation of the incident. www.nts.gov

Transportation Safety Board of Canada

The Transportation Safety Board of Canada (TSB) is an independent agency that advances transportation safety by investigating occurrences in the air, marine, pipeline and rail modes of transportation. www.tsb.gc.ca

Local Law Enforcement Agency

Depending on the incident or circumstance, some events may fall under the jurisdiction of a local law enforcement agency. The airport operator may be able to connect you with the appropriate media contact for the local law enforcement agency responsible for responding to the incident.

Airline Partners

Airports are constantly working to attract and retain airline carriers to offer air service that best serves their passengers and local communities. Airports lease space – inside and outside terminal gates – to airlines. Airports can serve as “hubs” for airlines in which many of their gates are leased to a specific airline. However, most airports have multiple airline operators leasing space at the airport.

Airports continually work with airlines in communicating changes in travel procedures or new air service announcements with the media and traveling public. Media inquiries on aircraft operations or newsworthy events that happen within their leased space at the airport should be directed to the specific airline.

In most cases, questions specific to an airline's operation, service, or schedule should be directed to that airline's media team. The airport operator may be able to connect you with the appropriate media contact.

Concessionaire Partners

Airports aim to enhance the travel experience by partnering with various concessionaires to deliver a mix

of food & beverage and retail offerings. Each airport will have its own unique set of concessions offerings, often combining a mix of nationally recognized brands and restaurants that create a sense of place. Airports may partner with one or multiple concessionaires. A strong concessionaire partner will reflect positively on an airport by providing a welcoming and desirable dining and/or retail experience; delivering great customer service and value, while providing revenue for the airport.

Commonly Use, Sometimes Confused Airport Terms

Air Traffic Control (ATC) — also called air traffic management, this is the service provided by ground-based personnel who direct aircraft on the ground and through a given section of controlled airspace and can provide advisory services to aircraft in non-controlled airspace.

Aircraft accident (Canada) — an occurrence resulting directly from the operation of an aircraft in which a person is killed or sustains a serious injury as a result of being on board the aircraft, coming into direct contact with any part of the aircraft, including parts that have become detached from the aircraft, or being directly exposed to jet blast, rotor down wash or propeller wash; the aircraft sustains structural failure or damage that adversely affects the aircraft's structural strength, performance or flight characteristics and would normally require major repair or replacement of any affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories, or damage limited to propellers, wing tips, antennae, tires, brakes, fairings or small dents or puncture holes in the aircraft's skin; or the aircraft is missing or inaccessible.

Aircraft accident (United States) — an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage. Monetary damage is not a factor in determining what constitutes an "accident."

Serious injury means any injury which: (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Substantial damage means damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the

affected component.

Aircraft incident (Canada) — an occurrence resulting directly from the operation of an aircraft having a maximum certificated take-off weight greater than 2250 kg or of an aircraft being operated under an air operator certificate issued under Part VII of the Canadian Aviation Regulations in which:

- an engine fails or is shut down as a precautionary measure;
- a power train transmission gearbox malfunction occurs;
- smoke is detected or a fire occurs on board;
- difficulties in controlling the aircraft are encountered owing to any aircraft system malfunction, weather phenomena, wake turbulence, uncontrolled vibrations or operations outside the flight envelope;
- the aircraft fails to remain within the intended landing or take-off area, lands with all or part of the landing gear retracted or drags a wing tip, an engine pod or any other part of the aircraft;
- a crew member whose duties are directly related to the safe operation of the aircraft is unable to perform their duties as a result of a physical incapacitation which poses a threat to the safety of persons, property or the environment;
- depressurization of the aircraft occurs that requires an emergency descent;
- a fuel shortage occurs that requires a diversion or requires approach and landing priority at the destination of the aircraft;
- the aircraft is refuelled with the incorrect type of fuel or contaminated fuel;
- a minor collision, a risk of collision or a loss of separation occurs;
- a crew member declares an emergency or indicates an emergency that requires priority handling by air traffic services or the standing by of emergency response services;
- a slung load is released unintentionally or as a precautionary or emergency measure from the aircraft; or
- any dangerous goods are released in or from the aircraft.

Aircraft incident (United States) — an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

Airport Improvement Program (AIP) funding — grant funding provided to airport sponsors for the planning and development of public-use airports that are included in

the National Plan of Integrated Airport Systems (NPIAS). For large and medium primary hub airports, the grant covers 75 percent of eligible costs or 80 percent for noise program implementation. For small primary, reliever, and general aviation airports, the grant generally covers a range of 90-95 percent of eligible costs. The funds for AIP are primarily generated by federal taxes and user fees related to domestic and international passenger tickets, cargo/airfreight waybills and aviation and jet fuel taxes and deposited in the Airport and Airway Trust Fund. AIP grant applications and allocations are then managed by the FAA's Office of Airports and assigned to qualified airports for approved projects. There are two types of AIP grants: entitlement grants (distributed based on FAA formulas related to passengers and/or cargo transported) and discretionary grants (provided for projects of national significance).

Airport security checkpoint — the locations where TSA officers use technology to screen persons and their property before they are allowed to enter the sterile area where passengers board aircraft.

Airport slot — an authorization to either take-off or land at a particular airport on a particular day during a specified time period at airports where there is more airline demand than airport capacity available. The authorization is for a planned aircraft operation and is distinct from air traffic control clearance or similar authorizations. Slots are a tool used around the world to manage air traffic at extremely busy airports, and to prevent repeated delays that result from too many flights trying to take off or land at the same time. Most airports in the United States and Canada do not have formal slot allocation programs, but rather rely on the collaborative engagement among air navigation service providers, airlines and other flight operators, and airports in real-time to manage airspace capacity constraints.

Airport three and four letter codes — three letter location identifier, also known as an International Air Transport Association (IATA) location identifier or IATA station code. The assignment of the codes, governed by IATA Resolution 763, are administered at IATA's headquarters in Montreal, Canada and published semi-annually in the IATA Airline Coding Directory. Most large airports in Canada have codes that begin with the letter "Y". The International Civil Aviation Organization (ICAO), provides a separate set of four letter codes for airports, with the first letter of these codes denoting country or region in which the airport is located. Three letter IATA codes and four letter ICAO codes often mirror one another, but this is not always the case. For example, London Heathrow Airport has the IATA code "LHR" and the ICAO code "EGLL".

Airside — this term has a couple definitions, depending on context. In the context of airport operations, development, and finance, the term means the area of the airport on which aircraft operations take place, including runways, taxiways, deicing and holding pads, and aircraft parking areas. From a security standpoint, it means the area of

the airport that is restricted to authorized personnel and passengers who have cleared security checks.

Anti-icing — the application of chemicals that not only deice but also remain on a surface and continue to delay the reformation of ice for a certain period of time or prevent adhesion of ice to make mechanical removal easier.

Apron — the area at an airport where aircraft are parked, unloaded or loaded, fueled, boarded or maintained. Also referred to as called "ramp" or "aircraft parking area".

Baggage or luggage — the suitcases, bags or other containers that passengers take with them while traveling. (source: Cambridge Dictionary) Airlines are responsible for the entire baggage process, including moving the baggage from the airplane to baggage claim for arriving flights. Airline employees perform this function, or the airline will hire a ground handling company of their choice to move the baggage. Airlines are also responsible for finding and returning lost baggage to passengers.

Bipartisan Infrastructure Law (BIL) — the Bipartisan Infrastructure Law provides \$25 billion for the 2022-2026 period for U.S. airport improvements, funding critical projects like runway upgrades, terminal modernization, sustainability initiatives, and accessibility enhancements. It aims to boost capacity, enhance safety, reduce emissions, and improve the passenger experience nationwide.)

Baggage Information Display System (BIDS) — a digital system to provide passengers with real-time information about where to find their baggage: Airlines can also use BIDS internally to help baggage handlers deliver bags efficiently to the appropriate carousels.

Canadian Environmental Protection Act (CEPA) — a federal law that addresses pollution prevention, the management of toxic substances, and the protection of the environment and human health at the national level. It provides the legislative basis for a range of federal environmental and health protection programs, including activities related to: the assessment and management of risks from chemicals, polymers and living organisms; programs related to air and water pollution, hazardous waste, air pollutant and greenhouse gas emissions; ocean disposal; and environmental emergencies.

Cancelled flight — a flight that was not operated but was listed in an airline's computer reservation system within seven calendar days of the scheduled departure.

CLEAR — a commercial, biometric secure identity platform that uses a trademarked technology to provide dedicated member-only queue lines to speed travelers to the front of the TSA security checkpoint through security. The system uses biometric data (fingerprints and eye scans) instead of traditional ID documents, like driver's licenses or passports, to verify traveler identification, allowing members to go

to the front of the TSA screening line. Clear is available only to U.S. citizens and legal permanent residents age 18 and older with valid government identification. The cost, as of October 22, 2024, was \$199 per year, with discounts available to members of numerous airline mileage programs.

Common use — the flexible and shared use of airport facilities through shared technology and infrastructure. It provides a platform for airlines, airports and ground handling agents to support their passenger processes at a given location, typically at an airport terminal, but may be off-site such as seaports, hotels and train stations.

Concourse — the area of a terminal providing access to airplanes through gates and spaces where passengers can wait for their flights. Concourses also provide a comfortable and convenient space for passengers to prepare for boarding as well as purchase food and amenities.

Crew timeout — occurs when the legally allowed duty hours for pilots or flight attendants are exhausted. This most often occurs when a flight experiences a lengthy delay.

Customs area/checkpoint — the area of an airport where the equipment (including kiosks) and federal officials (Customs and Border Protection (CBP) in the U.S. and Canada Border Services Agency (CBSA) in Canada) inspect passenger travel documents and luggage to control the flow of people and goods (including animals, transports, foods, personal effects, and hazardous items).

Deicing — the process of removing snow, ice or frost from a surface after it forms.

- **Aircraft ground deicing** – the process of spraying aircraft deicing fluids to melt ice, snow or frost, using unheated forced air to blow off loose snow and ice, using infrared heating to melt snow, ice, and frost without using chemicals. Other methods include mechanical deicing using tools such as brooms, scrapers, and ropes and placing an aircraft in a warm hangar.
- **Aircraft inflight deicing** – commercial aircraft almost always have in-flight ice protections systems to shed ice buildup and prevent reformation. Ice protection systems typically use one or more of the following approaches: pneumatic rubber “boots” on leading edges of wings and control surfaces, which expand to break off accumulated ice; electrically heated strips on critical surfaces to prevent ice formation and melt accumulated ice; bleed air systems which take heated air from the engines and duct them to locations where ice can accumulate; and fluid systems which “weep” deicing fluid over wings and control surfaces via tiny holes.

- **Airport pavement deicing** – generally involves the application of several types of liquid and solid chemical products, including propylene glycol, ethylene glycol and other organic compounds.

Delayed flight — A flight delay occurs when a flight departs or arrives later than its scheduled time. FAA and DOT consider a flight delayed if it arrives at or departs from the airport gate or parking area 15 minutes or more after the scheduled arrival.

Direct flight — a flight with only one flight number that may include a stop at another airport but does not require you to change planes before the airport of final destination.

Diverted flight — a flight that left from the scheduled departure airport but flew to a destination point other than the scheduled airport destination.

Duty-Free — stores that sell duty free products are located in airports or other travel hubs. The stores generally sell alcohol, tobacco, perfume, cosmetics and candy at cheaper prices because they do not charge any import, sales, value-added or other consumer taxes.

Emergency landing — a premature landing made by an aircraft in response to an emergency involving an imminent or ongoing threat to the safety and operation of the aircraft or involving a sudden need for a passenger or crew on board to terminate the flight (such as a medical incident). It typically involves a forced diversion to the nearest or most suitable airport. Flights under air traffic control will be given priority over all other aircraft operations when an emergency is declared. The three types of emergency landings are: forced landing (an immediate landing, on or off an airport, necessitated by the inability to continue further flight. A typical example of which is an airplane forced to land due to engine failure); precautionary landing (a premeditated landing, on or off an airport, when further flight is possible but inadvisable. Examples include deteriorating weather, being lost, fuel shortage, and gradually developing engine trouble) and ditching (a forced or precautionary landing on water).

Enplanements — the total number of passengers boarding aircraft, including originating, stopover, and transfer passengers, in scheduled and nonscheduled services.

Excursion or runway excursion — a runway excursion occurs when an aircraft departs the runway in use during the take-off or landing run. The excursion may be intentional or unintentional.

Federal Aviation Administration (FAA) — an operating administration under the U.S. Department of Transportation responsible for managing the U.S. aviation system. The agency regulates civil aviation and U.S. commercial space transportation, maintains and

operates air traffic control and navigation systems for both civil and military aircraft, and develops and administers programs relating to aircraft and airport safety and the National Airspace System. The FAA Office of Airports (ARP) has responsibility for all programs related to airport safety and inspections and standards for airport design, construction, and operation (including international harmonization of airport standards). Each year, the office awards billions in airport grants and approves passenger facility charge collections. The office also is responsible for national airport planning and environmental and social requirements and establishes policies related to airport rates and charges, compliance with grant assurances, and airport privatization.

Fee — imposed for the primary purpose of covering the cost of providing a service, with the funds raised directly from those benefiting from a particular provided service.

Fixed-base operator (FBO)— a business operating under a lease with an airport that dispenses aviation fuel, as well as provide aircraft maintenance. FBOs may also perform line maintenance, cabin cleaning, and baggage handling for commercial airline customers.

Flight — the entire passage consisting of one or more flight legs, from leaving the airport of origin to arrival at the airport of final destination and operated under one flight number.

Flight Information Display System (FIDS) — a digital system to display information on arriving and departing flight information in real-time. FIDS also can provide information on delays and cancellations, gate assignments, baggage belt information, weather forecast data, news and advertising.

Go around or missed approach — A standard aviation procedure that a pilot executes when the decision is made that it is safer to climb back into the air rather than continue to land. This can occur for various reasons, including poor weather conditions, reduced visibility, traffic on the runway, or the pilot's inability to establish the required visual references for landing. The pilot will follow predetermined specific maneuvers, including climbing to a specified altitude, following a designated track or holding pattern, and communicating with air traffic control to ensure safe separation from other aircraft and terrain.

Grant assurances — airports must agree to certain requirements or assurances to receive funds from FAA-administered financial assistance programs, including AIP. The assurances may be attached to the application or the grant for federal assistance and become part of the final grant offer or included in legally binding "restrictive covenants" to the airport's property deeds. These obligations remain in effect throughout the useful life of the facilities developed or equipment purchased.

Ground delay program — An air traffic management initiative where aircraft are delayed at their departure airport to reconcile demand with capacity at their arrival airport. These programs are generally implemented at airports where capacity has been reduced because of weather or any other time when demand exceeds capacity for a sustained period. They are implemented to ensure the arrival demand at an airport is kept at a safe and manageable level, to preclude extensive holding, and to prevent aircraft from having to divert to other airports.

Ground stop — air traffic management initiative requiring aircraft that meet specific criteria to remain on the ground at their origination airport. The ground stop may be airport specific, related to a geographical area, or equipment related. They are implemented when air traffic control is unable to safely accommodate additional aircraft in the system due to severely reduced capacity from weather, major equipment outages or catastrophic events. If a ground stop is expected to continue for an extended period, it is usually replaced with a ground delay program.

Hangar — building or structure designed to hold aircraft or spacecraft, built of metal, wood, or concrete. They are used for protection from the weather, direct sunlight and for maintenance, repair, manufacture, assembly and storage of aircraft or spacecraft. Airports may own hangars and buildings outright or may lease property to private developers who build facilities. The amount of revenue airports can generate from hangars is highly dependent upon the airport's location.

Hardstand — a paved surface where aircraft sit parked between flights. Rather than boarding or getting off the aircraft via a passenger loading bridge, passengers either walk to or from the aircraft or are transported by shuttle bus to and from the terminal.

Incursion or runway incursion — an occurrence at an airport where an aircraft ends up on the protected surface designated for landing and takeoff without ATC permission. The FAA categorizes runway incursions into three error types: pilot deviations (airlines), operational errors/deviations (air traffic controllers), and vehicle/pedestrian deviations (airports). These error types typically refer to the last event in the chain of pilot, air traffic controller, and/or airport vehicle operator actions that led to the runway incursion.

Irregular operations (IROPS) — events that require actions and/or capabilities beyond those considered usual by aviation service providers. An impact of these events is passengers experiencing delays, often in unexpected locations for an undetermined period of time. Examples include extreme weather events, (snowstorms, hurricanes, and tornados), geological events (earthquakes and volcanos), and other events (power outages and security breaches).

Known Crewmember (KCM) lane — an alternative entry

point into airport sterile areas, which may be separate from the TSA security checkpoint. Crewmembers will be met by a TSA Transportation Security Officer who will ask for the appropriate identification and confirm the crewmember's identity and current employment status. Once these tasks are successfully completed, the crewmember will be allowed to proceed into the sterile area. Only authorized crewmembers approved by the KCM system may enter the airport sterile area through a KCM lane. All other individuals (to include spouses, and dependents) must be screened at the TSA security checkpoint. Crewmembers can utilize the KCM lanes for both business and personal use except when on personal international travel. Crewmembers can use KCM lanes in or out of uniform. Crewmembers are permitted to bring their own personal property through the KCM lanes as long as that property is not on the TSA's Prohibited Items List. However, crewmembers may not bring pets or pet carriers through the KCM lanes. A crewmember may be selected for random screening, which is used as a check to ensure the integrity of the KCM program. Crewmembers also may be directed to the TSA security checkpoint whenever the KCM lane is not operational.

Known Crewmember Program (KCM) or Crewmember Access Point (CMAP) — currently, a joint initiative between Airlines for America (A4A) and the Air Line Pilots Association (ALPA). In the future, the existing KCM checkpoint system will be replaced by a system operated and managed by TSA. When that occurs, the name will be changed to Crewmember Access Point (CMAP). KCM ties airline employee databases together in a seamless way and enables TSA Transportation Security Officers to positively verify the identity and employment status of pilots and flight attendants. All KCM participants must be employed by an aircraft operator participating in a TSA-approved security program; authorized to perform crewmember duties on full all-cargo flights, scheduled passenger or public/private charter passenger flights operated under a TSA-approved security program; and have completed the aircraft operator's crewmember security training.

Landing fees — a charge airports impose on aircraft for using their facilities during landing operations. This fee is a common way for airports to generate revenue, enabling them to cover operational expenses and infrastructure maintenance crucial for safe and efficient aviation operations

Landside — like "airside", landside has definitions that vary based on context. In the context of airport operations, finance, and development, the term typically refers to airport access roadway systems, other on-airport ground transportation facilities, ground vehicle parking facilities, rental car facilities, and terminal curbside. From a security perspective, "landside" can refer to the area at an airport that is open to the general public before security. It often includes but is not limited to check-in counters, baggage claims, departure and arrival halls, and transportation facilities for passengers accessing the airport.

Minimum Annual Guarantee (MAG) — a fixed rent clause in an airport concession contract that provides the airport with a minimum revenue from concessionaires. MAGs are often based on a percentage of the previous year's revenue and are typically included in contracts for concessions like parking, retail, and rental cars.

Minimum Revenue Guarantee (MRG) — an incentive guaranteeing a commercial airline a specified amount of revenue from ticket sales associated with new or expanded service.

Non-Aeronautical revenues — income derived from activities that are not directly related to the operation of aircraft, including parking, rental cars, advertising and terminal concession operations including retail and duty-free shopping, food and beverage outlets as well as non-passenger related activities such as commercial land leases, sale of mineral rights, or other revenue-producing activities.

Non-stop flight — a flight with only one flight number that does not make any intermediate stops before the airport of final destination.

Origin and Destination (O&D) passengers — refers to the start and end points of each passenger's journey. The number of O&Ds also indicates the size and complexity of a carrier's route network.

Passenger enplanement — a passenger boarding an aircraft at a particular airport.

Passenger Facility Charge (PFC) — a local fee-per-ticket collected by the airlines on behalf of a U.S. airport to fund capacity, safety, security or environmental projects. PFCs have become a cornerstone of airport capital programs, having funded over \$130 billion in airport development benefiting passengers since their inception in 1990. PFCs are tied directly to local airport-related projects that: preserve or enhance safety, security and capacity of the national air transportation system; reduce noise from an airport that is part of the system; or provide opportunities for enhanced competition between or among air carriers. Original legislation permitted airports to charge a PFC in \$1.00 increments up to \$3.00. The legislation changed in 2000, allowing airports to charge up to \$4.50 per passenger, with a maximum charge of \$18 per passenger, per ticket. FAA approves the PFC application for specific dollar amounts and time periods after gathering airport user and public comments. Airports must re-apply to extend the period of PFC collection.

Precision Approach and Landing System (PALS) — a specific lighting system designed to enhance the safety and precision of aircraft landing approaches, especially in low visibility conditions. The system provides pilots with visual cues, aiding them in accurately aligning the aircraft with the runway and executing a precise descent, reducing the likelihood of runway incursions, missed approaches,

and accidents.

Promotional airport codes — Airports sometimes use three letter abbreviations in their promotional media, such as RIA for Richmond International Airport, rather than RIC, the IATA three letter code for the airport.

Restricted area — any area of the airport that is not open to the general public.

Rideshare pickup location, app-based rideshare pickup location, ride app pickup location — various terms used to describe the designated location at an airport where people who have arranged transportation are picked up by drivers using their personal, non-commercial vehicles.

Runway — a place where aircraft can land and takeoff. Runways can be a “human-made” surface (asphalt, concrete or a mixture of both) or a natural surface (dirt, grass, sand or ice).

Runway End Safety Area (RESA) — in Canada, the designated area of land located immediately beyond the end of a runway, designed to minimize damage to an aircraft in the event of an undershoot or overrun during landing or takeoff, reducing the severity of potential accidents. According to Transport Canada regulations, any Canadian airport that serves 325,000 passengers for two consecutive years is required to implement a RESA within a three-year timeframe; essentially meaning once an airport reaches this passenger threshold, they must establish a RESA within three years of that point.

Runway Safety Area (RSA) — in the United States, the surface surrounding the runway, typically 500-foot wide and extending 1,000-feet beyond each runway end. It provides a graded area in the event that an aircraft overruns, undershoots or veers off the side of the runway (runway excursion). RSAs reduce the severity of a runway excursion by safely dissipating the runway excursion aircraft’s kinetic energy (movement) while preserving its potential energy (fuel load) until it deaccelerates to a complete stop.

Secured area — the part of an airport, which certain security measures specified in federal regulations are carried out.

Security breach — any incident involving unauthorized access by an individual or a prohibited item brought into a sterile area or secured area of an airport that could present an immediate and significant risk to life, safety, or the security of the transportation network.

Security lockdown — a security measure taken during an emergency to prevent people from leaving or entering a building or other area.

Skycap — a porter at an airport that handles luggage, strollers and car seats and may perform curbside check-

in for flights, allowing passengers to skip the lines at the airline’s counter.

Sterile area — means a portion of a U.S. airport defined in the airport security program that provides passengers access to boarding aircraft and to which the access generally is controlled by TSA, or by an aircraft operator under 49 CFR Part 1544 or a foreign air carrier under 49 CFR Part 1546, through the screening of persons and property.

Tarmac — a term sometimes used to describe runways, taxiways, and aprons/ramps, although very few are built using tarmacadam (tarmac), a concrete road surfacing material made by combining tar, crushed stone and sand. Using tarmac to describe where planes park is like calling the area outside a building where cars park “the concrete” or “the asphalt” instead of calling it the parking lot.

Tax — imposed for the primary purpose of raising revenue, with the resultant funds spent on general government services. .

Taxiway — a path for aircraft connecting runways with aprons, hangars, terminals and other airport facilities.

Terminal — a building at an airport where passengers and airline crew transfer between ground transportation and the facilities that allow them to board and disembark from aircraft. Inside the terminal, passengers can interact with airlines, leave or pick up their luggage, be checked by government security officials and purchase food, news or gifts from concessionaires. Terminals can have multiple concourses, either attached to the building or separately situated.

Throughput — the rate at which an airport handles aircraft, or the number of arrivals and departures in a given period of time. It’s a key factor in airport operations and is affected by both supply (airport capacity) and demand (arrivals) for a specific airport. Throughput is important for coordinating the operational management of terminal buildings and landside facilities. Annual passenger throughput at airports is often used to provide decision support for airport construction, and airline route planning.

Trusted Traveler Programs — The U.S. Department of Homeland Security has four programs that allow members to use expedited lanes at the U.S. airports, and when crossing international borders. All memberships are valid for five years. The programs are:

- **TSA PreCheck** — provides streamlined security screening at U.S. airports. U.S. citizens, U.S. nationals and U.S. lawful permanent residents are eligible for the program which, as of October 22, 2024, cost \$77.95 for new enrollments.
- **Global Entry** — provides a streamlined international arrival process and is recommended

for international travelers making four or more trips per year. U.S. citizens, U.S. lawful permanent residents, and select foreign nationals are eligible for the for the program which, as of October 22, 2024, cost \$120 for new enrollments and includes TSA PreCheck.

- **Secure Electronic Network for Travelers Rapid Inspection (SENTRI)** — provides a streamlined international arrival process to the United States from Mexico and is recommended for those who frequently travel between the two countries. U.S. citizens, U.S. lawful permanent residents, and all foreign nationals are eligible for the for the program which, as of October 22, 2024, cost \$120 for new enrollments.
- **Nexus** — a program jointly run by the U.S. Customs and Border Protection (CBP) and the Canada Border Services Agency (CBSA) that provides a streamlined international arrival process for both U.S. and Canada locations. It is recommended for those who frequently travel between the two countries. U.S. citizens, U.S. lawful permanent residents, Canadian citizens, Canadian permanent residents and Mexican nationals are eligible for the for the program which, as of October 22, 2024, cost \$120 for new enrollments.

TSA or CATSA passenger screening checkpoint —

Passengers and some people employed at the airport must pass through the screening before they can proceed to the secured area where the airline departure gates are located. The checkpoint includes TSA or CATSA equipment and staff to screen persons and their property to ensure they are not bringing any prohibited items into the secured area.

Turnaround — turnaround is the process of preparing a landed aircraft for a new flight. It involves a number of tasks, including passenger disembarkation, cargo and baggage handling, refueling, catering and cleaning, maintenance checks, and boarding. The efficiency of the turnaround process directly impacts an airline's operational productivity, affecting flight punctuality, resource utilization, and passenger satisfaction.

Turnaround time — the time the time interval between an aircraft's arrival at an airport and its departure on the next flight from the same gate or parking stand on the same day after all turnaround functions are completed.

Vehicle access point — locations where persons and vehicles are inspected prior to being allowed entry into the secured area where airlines enplane and deplane passengers, sort and load baggage and cargo.

Understanding Airport Infrastructure Funding in the United States

America's airports are a fundamental component of our nation's infrastructure. To meet the capacity demands of the future with safe, efficient, and modern facilities passengers and airport customers expect, we need to make long overdue investments to maintain and modernize airports.

AIRPORT INFRASTRUCTURE NEEDS

In ACI-NA's most recent infrastructure needs survey, ACI-NA estimates that there are more than \$151 billion in unmet airport infrastructure needs from 2023 through 2027. That's more than \$30 billion per year necessary to keep up with current demand and plan for the future.

FIVE COMMON PURPOSES FOR CAPITAL IMPROVEMENTS

Every airport capital improvement project can fit within at least one of these categories. Because airports are continually thinking far into the future, it is likely each project fits into more than one category.

- **Meeting Capacity Demands:** In 2024, more than 900 million passengers traveled through U.S. airports. The Federal Aviation Administration (FAA) estimates enplanements will grow to more than one billion. To accommodate increased passenger and cargo demand, airports must keep a constant eye on the future.
- **Reconstructing Aging Infrastructure:** Airports must also ensure existing runways and terminal buildings are in good repair to prevent safety problems and service disruptions. As airport infrastructure continues to age, more and more resources are being focused on reconstruction over new improvements.
- **Ensuring Compliance with Government Mandates:** Airports are required to comply with myriad federal, state, and local regulations, including regulations stemming from the FAA, the Transportation Security Administration (TSA), U.S. Customs and Border Protection (CBP), the Americans with Disabilities Act (ADA), and much more.
- **Enhancing Safety and Security and Promoting Environmental Protection:** Safety and security challenges are constantly changing, especially as threats become more complex. Airports must continually work to ensure the safety and security of the traveling public. Airports are also responsible stewards of the environment, including noise concerns and deicing processes. An airport's ability to maintain safety, security, and environmental challenges promotes efficient airport operations and reduce flight delays.

- **Accommodating Aircraft Innovation:** Airport infrastructure decisions are also based on the need to continually update and improve facilities and extend runways to accommodate larger, heavier, more sophisticated aircraft.

UNDERSTANDING AIRPORT REVENUE

There are two primary sources of airport revenue.

Aeronautical revenue is derived from aviation related operations. Non-aeronautical revenue is derived from non-aviation related activity at the airport.

Aeronautical Revenue: Airline rents, user fees, and charges are the primary source of the aeronautical, or airside revenue. The relationship between the airport and an airline is similar to a landlord-tenant relationship – essentially, each airline pays the airport for the use and maintenance of its facilities. Most airports create a contract with airlines wishing to use its facilities, typically known as a use and lease agreement. This contract frames the relationship between the airport and the airline. One of the most important elements of any Use and Lease Agreement is the definition of the compensation the airline pays to the airport for use and maintenance of its facilities.

Non-Aeronautical Revenue: Non-aeronautical, or terminal and landside, revenue are all the funds generated from all non-aviation sources. These other sources include:

- **Concessions:** Rents paid by gift shops, restaurants, and newsstands, and, if agreed to in the concession contract, a percentage of the profits.
- **Parking and Airport Access:** Fees for all airport-owned parking lots and in some cases, off-airport concessions bringing travelers to and from the airport.
- **Rental Car Operations:** Revenue from rental car operations within or outside a terminal.
- **Land Rent:** Excess airport land may be rented for golf courses, office buildings, hotels, farming or other uses.
- **Advertising:** Ads placed on airport walls, billboards and buses are a source of airport income.

FINANCING AIRPORT CONSTRUCTION PROJECTS

Passenger Facility Charges (PFCs): PFCs are a local fee-per-ticket collected by the airline on behalf of the airport to fund capacity, safety, security or environmental projects. The fee is listed on the passenger's ticket, and the airlines are paid to collect it. PFCs have become a cornerstone of airport capital programs, having funded over \$130 billion in airport development benefiting passengers since their inception in 1990. The Federal Aviation Administration has set up a series of rules governing these funds.

- Currently, the maximum fee is \$4.50 per passenger, with a maximum charge of \$18 per passenger, per ticket.
- The FAA must approve the project after gathering airport user comments and public review.
- The FAA approves individual airport PFC applications for specific dollar amounts and time periods. Airports must re-apply to extend the period of PFC collection.
- A large or medium-size airport that collects a PFC is required to return up to 75 percent of their AIP entitlement funds for use at smaller airports.

Federal Grants: Airport Improvement Program (AIP) grants, often referred to as federal grants, are primarily funded by the taxes and fees paid by passengers, general aviation and cargo shippers. The AIP program is not funded by general taxpayer revenues. The FAA Office of Airports distributes entitlement and discretionary grants to airports, following the submission of documentation on the proposed use of the grant.

Bonds: Airports frequently turn to the capital markets to finance long-term construction projects. Because many airports are part of a state, county or local government, they have access to tax-exempt municipal bonds for capital projects. Depending on the nature of the project being financed by the airport, most bonds are considered private activity bonds (PABs). PABs are subject to the Alternative Minimum Tax, thereby raising the return demanded by the investor and the financing cost for the airport. Bonds are a financing mechanism, not a revenue stream, and must be repaid with an actual revenue stream.