

# **APPENDIX A**

---

## **ACRONYMS AND GLOSSARY OF TERMS**



## **GLOSSARY**

**A-Weighted Sound (dBA)**- A measurement representing a sound generally as the human ear hears it by filtering out as much as 20 to 40 decibels of sound below 100 hertz. Used for aircraft noise evaluations.

**Advisory Circular (AC)** – A document published by the Federal Aviation Administration (FAA) giving guidance on aviation issues.

**Air Route Traffic Control Center (ARTCC)**- An FAA facility established to provide air traffic control service to aircraft operating on an IFR flight plan within controlled airspace during the en route portion of a flight.

**Air Traffic** – Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

**Air Traffic Control** — Control of the airspace by an appropriate authority to promote the safe, orderly and expeditious movement of terminal air traffic.

**Aircraft Operation** – An aircraft arrival or departure from an airport with FAA airport traffic control service. There are two types of operations: local and itinerant.

**Airport** — Any public use airport, including heliports, as defined by the Aviation Safety and Noise Abatement Act of 1979 (ASNA), including: (a) Any airport which is used or to be used for public purposes, under the control of a public agency, the landing area of which is publicly owned; (b) any privately owned reliever airport; and (c) any privately owned airport which is determined by the Secretary to enplane annually 2,500 or more passengers and receive scheduled passenger service of aircraft, which is used or to be used for public purposes.

**Airport Impact Zones** –Defined areas on and off airport property that are zoned to ensure airport compatible land uses. Low-activity airports without significant aircraft noise exposure contours can benefit by identifying and implementing land use controls in Airport Impact Zones. The Impact Zones generally include the runway protection zone, the FAR Part 77 approach surface and the airport traffic pattern.

**Airport Improvement Program (AIP)** – The AIP is authorized by the Airport and Airway Improvement Act of 1982 (P.L. 97-248, as amended). The Act's broad objective is to assist in the development of a nationwide system of public-use airports adequate to meet the current and projected growth of civil aviation. The Act provides funding for airport planning and development projects at airports included in the National Plan of Integrated Airport Systems. The Act also authorizes funds for noise compatibility planning and to carry out noise compatibility programs as set forth in the Aviation Safety and Noise Abatement Act of 1979 (P.L. 96-143)

**Airport Layout Plan (ALP)** – A scaled drawing of existing and proposed land and facilities necessary for the operation and development of the airport. The ALP shows (1) boundaries and proposed additions to areas owned or controlled by the sponsor, (2) the location and nature of existing and proposed airport facilities and structures and (3) the location on the airport of existing and proposed and non-aviation areas and improvements.

**Airport Master Plan** – A planning document, including appropriate documents and drawings, that describes the development of a specific airport from a physical, economical, social, environmental and political jurisdictional perspective. The airport layout plan drawing is part of the Master Plan.

**Airport Noise Compatibility Program** - A program including the measures proposed or taken by the airport owner to reduce existing incompatible land uses and to prevent the introduction of additional incompatible land uses within the area.

**Airport Owner** – Any person or authority having the operational control of an airport as defined in the ASNA Act.

**Airport and Airway Improvement Act of 1982** – This Act authorizes the Secretary of Transportation to make project grants for airport planning and development to maintain a safe and efficient nationwide system of public-use airports.

**Airport Noise and Capacity Act of 1990** – This act required the establishment of a National Noise Policy and a requirement to eliminate Stage 2 aircraft weighing 75,000 pounds or greater operating in the contiguous United States by the year 2000.

**Airport Sponsor** — A public agency or tax-supported organization such as an airport authority, that is authorized to own and operate the airport, to obtain property interests, to obtain funds, and to legally, financially and otherwise able to meet all applicable requirements of current laws and regulations.

**Airport Surveillance Radar (ASR)**- A radar system which allows air traffic controllers to identify an arriving or departing aircraft distance and direction from an airport.

**Air Traffic Control Tower (ATCT)** – The air traffic control facility located on an airport that is responsible for providing air traffic control services to airborne aircraft near the airport and to aircraft operating on the airport movement area.

**Airspace** — The space lying above the earth or above a certain area of land or water that is necessary to conduce aviation operations.

**Airway**- A corridor of controlled airspace whose centerline is established by radio nav aids.

**Approach Surface** – A surface defined by FAR Part 77 “Objects Affecting Navigable Airspace,” that is longitudinally centered on the runway centerline and extends outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based on the type of approach available or planned for that runway end.

**Attenuation**- Acoustical phenomenon whereby a reduction of sound energy is experienced between the noise source and the receiver. This energy loss can be attributed to atmospheric conditions, terrain, vegetation, man made features, and natural features.

**Avigation Easement** - A grant of a property interest in land over which a right of unobstructed flight in the airspace is established.

**Based Aircraft** - An aircraft permanently stationed at an airport by agreement between the aircraft owner and the airport management.

**Base Leg** - A flight path, normally in the standard traffic pattern, of a landing aircraft which is at a right angle to a landing runway of its approach end. Base leg normally extends from the downwind leg to the final approach in the standard traffic pattern.

**Building Codes** - Codes, either local or state, that control the functional and structural aspects of buildings and/or structures. Local ordinances typically require proposed buildings to comply with zoning requirements before building permits can be issued under the building codes.

**Class A Airspace** - Generally, that airspace from 18,000 feet MSL up to and including FL600, including the airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States and Alaska. Unless otherwise authorized, all persons must operate their aircraft under IFR.

**Class B Airspace** - Generally, that airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports in terms of IFR operations or passenger enplanements. The configuration of each Class B airspace area is individually tailored and consists of a surface area and two or more layers (some Class B airspace areas resemble upside-down wedding cakes), and is designed to contain all published instrument procedures once an aircraft enters the airspace. An ATC clearance is required for all aircraft to operate in the area, and all aircraft that are so cleared receive separation services within the airspace. The cloud clearance requirement for VFR operations is "clear of clouds."

**Class C Airspace** - Generally that airspace from the surface to 4,000 feet above the airport elevation (charted in MSQ surrounding those airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations or passenger enplanements. Although the configuration of each Class C airspace area is individually tailored, the airspace usually consists of a surface area with a 5NM radius, and an outer circle with a 1 ONM radius that extends from 1,200 feet to

4,000 feet above the airport elevation. Each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while within the airspace. VFR aircraft are only separated from IFR aircraft within the airspace.

**Class D Airspace** - Generally, that airspace from the surface to 2,500 feet above the airport elevation (charted in MSQ surrounding those airports that have an operational control tower. The configuration of each Class D airspace area is individually tailored and when instrument procedures are published, the airspace will normally be designed to contain the procedures. Arrival extensions for instrument approach procedures may be Class D or Class E airspace. Unless otherwise authorized, each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while in the airspace. No separation services are provided to VFR aircraft.

**Class E Airspace** - Generally, if the airspace is not Class A, Class B, Class C, or Class D, and it is controlled airspace, it is Class E airspace. Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. When designated as a surface area, the airspace will be configured to contain all instrument procedures. Also in this class are Federal airways, airspace beginning at either 700 or 1,200 feet AGL used to transition to/from the terminal or enroute environment, enroute domestic, and offshore airspace areas designated below 18,000 feet MSL. Unless designated at a lower altitude, Class E airspace begins at 14,500 MSL over the United States, including that airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States and Alaska. Class E airspace does not include the airspace 18,000 MSL or above.

**Commercial Service Airport** - A public airport that has at least 2,500 passenger boarding each year and is receiving scheduled passenger aircraft service.

**Commuter Aircraft** - Commuters are those operators that provide regularly scheduled passenger or cargo service with aircraft seating 72 passengers or less.

**Comprehensive Plan** - Similar to a Master Plan, the comprehensive plan is a governmental entity's official statement of its plans and policies for long-term development. The plan includes maps, graphics and written proposals, which indicate the general location for streets, parks, schools, public buildings, airports, and other physical development of the jurisdiction.

**Day-Night Average Sound Level (DNL)** - A noise measure used to describe the average aircraft noise levels over a 24-hour period, typically an average day over the course of a year. DNL considers aircraft operations occurring between the hours of 10 p.m. and 7 a.m. to be ten decibels louder than operations occurring during the daytime to account for increased annoyance when ambient noise levels are lower and residents are sleeping. DNL may be determined for individual locations or expressed in noise contours.

**Decibel (dB)** - Sound is measured by its pressure or energy in terms of decibels. The decibel scale is logarithmic; when the scale increases by ten, the perceived sound is two times as loud.

**Displaced Threshold** - A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold may be available for takeoffs and landings from the opposite direction.

**Distance Measuring Equipment (DME)** - A flight instrument that measures the distance from a navigational radio station in nautical miles.

**Downwind Leg** - A standard landing procedure in which an aircraft parallels the landing runway in the direction opposite to the landing direction.

**Enplanement** - A passenger boarding of a commercial flight.

**Equivalent Sound Level (LEQ)** - The steady A-weighted sound level over any specified time period. It is used to identify the average sound level over a period of time.

**FAR Part 36, Certificated Airport Noise Levels** - Noise certification standards for civil turbojet and large transport category aircraft. Provides a reference source for aircraft noise levels.

**Far Part 150, Airport-Land Use Compatibility Planning** - Designed to assist airport operators in determining the extent and nature of noise impacts at a given airport.

**Federal Aviation Administration (FAA)** - A federal agency charged with regulating air commerce to promote its safety and development, encouraging and developing civil aviation, air traffic control and air navigation and promoting the development of a national system of airports.

**Federal Aviation Regulations (FAR)** - Regulations established and administered by the FAA that governs civil aviation and aviation-related activities.

**Federal Grant Assurance** - The terms and conditions of accepting Airport Improvement Program (AIP) grants from the Federal Aviation Administration for carrying out the provisions of Title 49, United States Code. The terms and conditions become applicable when the airport sponsor accepts a grant offer from the FAA.

**Final Approach (IFR)** - The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course.

**Final Approach (VFR)** - The flight path, normally in the standard traffic pattern, of a landing aircraft along the extended centerline of the runway centerline. Final approach is preceded by a base leg in the standard traffic pattern.

**Fixed-Base Operator (FBO)** - An airport facility that serves the general aviation community by selling and repairing aircraft and parts, selling fuel, and providing flight and ground-school instruction.

**General Aviation (GA)** - Refers to all civil aircraft and operations that are not classified as air carrier, commuter or regional. The types of aircraft used in general aviation activities cover a wide spectrum from corporate multi-engine jet aircraft piloted by professional crews to amateur-built single engine piston acrobatic planes, balloons and dirigibles.

**Glide Slope** - Provides vertical guidance for aircraft during approach and landing. The glide slope consists of the following: Electronic components emitting signals which provide vertical guidance by reference to airborne instruments during instrument approaches such as ILS, or Visual ground aids, such as VASI, which provide vertical guidance for VFR approach or for the visual portion of an instrument approach and landing.

**Global Positioning System (GPS)** - A system of satellites used as reference points to enable navigators equipped with GPS receivers to determine their latitude, longitude, and altitude.

**Ground Effect** - Noise attenuation attributed to absorption or reflection of noise by man made or natural features on the ground surface.

**Instrument Approach** - A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually.

**Instrument Flight Rules (IFR)** - Rules governing the procedure for conducting instrument flight. In addition, a term used by pilots and controller to indicate a type of flight plan.

**Instrument Landing System (ILS)** - An electronic system installed at some airports which helps guide pilots to runways during periods of limited visibility or inclement weather.

**Instrument Meteorological Conditions (IMC)** - Weather conditions expressed in terms of visibility, distance from clouds, and cloud ceilings during which all aircraft are required to operate using instrument flight rules (IFR).

**Integrated Noise Model (INM)** - FAA's computer model used by the civilian aviation community for evaluating aircraft noise impacts near airports. The INM uses a standard database of aircraft characteristics and applies them to an airport's average operational day to produce noise contours.

**Itinerant Operation** - Any aircraft arrival and/or departure other than a local operation.

**Knots** - Airspeed measured as the distance in nautical miles covered in one hour.

**Land Use Controls** - Measures established by state or local government that are designed to carry out land use planning. The controls include among other measures: zoning, subdivision regulations, planned acquisition, easements, covenants or conditions in building codes and capital improvement programs, such as establishment of sewer, water, utilities or their service facilities.

**Landing and Takeoff (LTO) Cycle** - The time an aircraft is in operation at an airport.

**Leq** - Equivalent Sound Level

**Local Passenger** - A passenger who either enters or exits a metropolitan area on flights serviced by the area's airport.

**Localizer** - The component of an ILS, which provides lateral course guidance to the runway.

**Local Operation** - Any operation performed by an aircraft that: (a) operates in the local traffic pattern or within sight of the tower or airport, or (b) is known to be departing for, or arriving from, flight in local practice areas located with a 20-mile radius of the control tower or airport, or (c) executes a simulated instrument approach or low pass at the airport.

**Missed Approach** - A prescribed procedure to be followed by aircraft that cannot complete an attempted landing at a airport.

**Narrowbody Aircraft** - A commercial passenger jet having a single aisle and a maximum of three seats on each side of the aisle.

**National Plan of Integrated Airport Systems (NPIAS)** - A primary purpose of the NPIAS is to identify the airports that are important to national transportation and, therefore, eligible to receive grants under the Airport Improvement Program (AIP). The NPIAS is composed of all commercial service airports, all reliever airports, and selected general aviation airports.

**Nautical Mile** - A measure of distance equal to one minute of arc on the earth's surface, which is approximately 6,076 feet.

**Navigation Aids (NAVAIDS)** - Any facility used by an aircraft for guiding or controlling flight in the air or the landing or take-off of an aircraft.

**Noise** - Unwanted sound

**Noise Abatement Procedures** - Changes in runway usage, flight approach and departure routes and procedures, and vehicle movement, such as ground maneuvers or other air traffic procedures that shift aviation impacts away from noise sensitive areas.

**Noise Compatibility Program (NCP)** - The NCP consists of an optimum combination of preferred noise abatement and land use management measures, and a plan for the implementation of the measures. For planning purposes, the implementation plan also includes the estimated cost for each of the recommended measures to the airport sponsor, the FAA, airport users, and the local units of government.

**Noise Exposure Contours** - Lines drawn about a noise source indicating constant energy levels of noise exposure. DNL is the measure used to describe community exposure to noise.

**Noise Exposure Map (NEM)** - The NEM is a scaled map of the airport, its noise contours and surrounding land uses. The NEM depicts the levels of noise exposure around the airport, both for the existing conditions and forecasts for the five-year planning period. The area of noise exposure is designated using the DNL (Day-Night Average Sound Level) noise metric.

**Noise Level Reduction (NLR)** - The amount of noise level reduction in decibels achieved through incorporation of noise attenuation (between outdoor and indoor levels) in the design and construction of a structure.

**Noise-Sensitive Area** - Areas where aircraft noise may interfere with existing or planned use of the land. Whether noise interferes with a particular use depends upon the level of noise exposure and the types of activities that are involved. Residential neighborhoods, educational, health, and religious structures and sites, outdoor recreational, cultural and historic sites may be noise sensitive areas.

**Notice to Airman (NOTAM)** - A notice containing information concerning the condition of the National Airspace System.

**Overlay Zone** - A mapped zone that imposes a set of requirements in addition to those of the underlying zoning district.

**Passenger Facility Charge (PFC) Program** - The PFC Program, first authorized by the Aviation Safety and Capacity Expansion Act of 1990 and now codified under Section 40117 of Title 49 U.S.C., provides a source of additional capital to improve, expand and repair the nation's airport infrastructure. The legislation allows public agencies controlling commercial service airports to charge enplaning passengers using the airport a facility charge. The FAA must approve any facility charges imposed on enplaning passengers.

**Precision Approach Procedure** - A standard instrument approach procedure in which an electronic glideslope is provided.

**Profile** - The physical position of the aircraft during landings or takeoffs in terms of altitude and distance in relation to the runway.

**Radial** - A magnetic bearing extended from a VOR, VORTAC, or TACAN facility.

**Run Up** - A routine procedure for testing aircraft at high power settings conducted by maintenance personnel.

**Runway** - A defined area on an airport for the purpose of landing and takeoff.

**Runway Protection Zone (RPZ)** - A trapezoidal-shaped area centered about the extended runway centerline that is used to enhance the safety of aircraft operations. It begins 200 feet beyond the end of the runway or area usable for takeoff or landing. The RPZ dimensions are functions of the design aircraft, type of operation and visibility minimums.

**Sound Exposure Level (SEL)** - A measure of the physical energy of the noise event that takes into account both intensity and duration. By definition SEL values are referenced to a duration of one second. SEL is higher than the average and the maximum noise levels as long as the event is longer than one second is. Sound exposure level is expressed in decibels (dB). People do not hear SEL.

**Special Use Airspace** - Six types of airspace designated to special uses and defined in the Airmans informational manual. It identifies areas wherein activities must be confined because of their nature and/or wherein limitations may be imposed upon aircraft operations that are not part of those activities.

**Stage 2 Aircraft** - Aircraft that meet the noise levels prescribed by FAR Part 36 and are less stringent than noise levels established for the quieter designation Stage 3 aircraft. The Airport Noise and Capacity Act requires the phase-out of all Stage 2 aircraft by December 31, 1999, with case-by-case exceptions through the year 2003.

**Stage 3 Aircraft** - Aircraft that meet the most stringent noise levels set forth in FAR Part 36.

**TACAN** - Tactical Air Navigation. A navigation system used by the military.

**Taxiway** - A defined path established for taxiing of aircraft from one part of an airport to another.

**Terminal Area** - A general term used to describe airspace in which airport traffic control or approach control service is provided.

**Terminal Radar Approach Control (TRACON)** - An FAA Air Traffic Control Facility which uses radar and two way communication to provide separation of air traffic within a specified geographic area in the vicinity of one or more airports.

**Threshold** - The beginning of the usable section of a runway.

**Traffic Patterns** - A traffic flow that is prescribed for aircraft landing at and taking off from an airport.

**Turbojet Aircraft** - Aircraft operated by jet engines incorporating a turbine-driven air compressor to take in and compress the air for the combustion of fuel, the gases of combustion (or the heated air) being used both to rotate the turbine and to create a thrust-producing jet.

**Turboprop Aircraft** - Aircraft in which the main propulsive force is supplied by a gas turbine driven conventional propeller. Additional propulsive force may be supplied from the discharged turbine exhaust gas.

**Vector** - Compass heading instructions issued by ATC to provide navigational guidance by radar.

**Very High Frequency Omnidirectional Range Station (VOR)** - A ground based radio navigation aid transmitting signals in all directions. A VOR provides azimuth guidance to pilots by reception of electronic signals.

**Visual Approach** - An approach to an airport conducted with visual reference to the terrain.

**Visual Flight Rules (VFR)** - Rules that govern flight procedures in good weather, with conditions usually being at least 1,000-foot ceiling and three miles visibility.

**Visual Meteorological Conditions (VMC)** - Weather conditions equal to or greater than those specified in 14 CFR 91.155 for aircraft operations under Visual Flight Rules.

**VORTAC** - Very High Frequency Omnidirectional Range with Tactical Air Navigation. A navigational aid providing VOR azimuth and TACAN distance measuring equipment at one site.

**Zoning** - The partitioning of land parcels in a community by ordinance into zones and the establishment of regulations in the ordinance to govern the land use and the location, height, uses, and land coverage of buildings within each zone. The zoning ordinance usually consists of text and zoning map.