

**APPENDIX L: AVIATION GLOSSARY**

## AVIATION 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.

**Airman's Information Manual:** A publication containing basic flight information and ATC procedures designed primarily as a pilot's information and instructional manual for use in the Nation Air Space.

**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 Hazard:** Any structure or object of natural growth located on or near the airport, or any use of land near the airport that obstructs the airspace required for the flight of aircraft in landing or taking off, or is otherwise hazardous to such landing and taking off.

**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.

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**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 Layout Plan Set:** Included in the Airport Layout Plan set are six drawings: (1) Airport Layout Drawing (Plan), (2) Airport Airspace Drawing, (3) Inner Portion of the Approach Surface Drawing, (4) Terminal Area Drawing, (5) Land Use Drawing and (6) Airport Property Map. The drawings depict existing and proposed airport facilities, land uses, approach zones and other defined areas of airspace, and environmental features that may influence airport usage and expansion capabilities.

**Airport Manager:** The person authorized by the airport sponsor to exercise administrative control of the airport.

**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 Operations:** The total number of movements in landings (arrivals) plus takeoffs (departures) from an airport.

**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

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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 Reference Code (ARC):** The ARC is a FAA coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport.

**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.

**Airside:** That portion of the airport facility where aircraft movements take place, airline operations areas, and areas that directly serve the aircraft, such as taxiway, runway, maintenance and fueling areas.

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

**Airway:** A corridor of controlled airspace whose centerline is established by radio navigaids.

**Ambient Noise:** The total amount of noise in a given place and time, which is usually a composite of sounds from varying sources at varying distances.

**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.

**ASNA Act:** The Aviation Safety and Noise Abatement Act of 1979, as amended (49 U.S.C. 2101 et seq.).

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**Attainment Area:** An area in which the federal or state standards for ambient air quality is being achieved.

**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.

**Automated Radar Terminal System (ARTS):** Computer aided radar display subsystems capable of associating alphanumeric data such as weather and NOTAMS.

**Automatic Terminal Information Service (ATIS):** Continuous radio broadcast of recorded air traffic control information at selected high activity airports.

**Average Sound Level:** The level in decibels, of the mean square, A-weighted sound pressure during a specified period, with reference to the square of the standard reference sound pressure of 20 micropascals.

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

**Aviation Safety and Noise Capacity Act:** Provides assistance to airport operators to prepare and carry out noise compatibility programs. Authorizes the FAA to help airport operators develop noise abatement programs and makes them eligible for AIP grants.

**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.

**Baseline Condition:** The existing condition or conditions prior to future development, which serve as a foundation for analysis.

**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.

**CAT I:** Category I instrument landing system

**CAT II:** Category II instrument landing system

**CAT III:** Category III instrument landing system

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**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.

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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.

**Compatible Land Use:** As defined in FAR Part 150: The use of land (e.g., commercial, industrial, agricultural) that is normally compatible with aircraft and airport operations, or sound insulated lands uses (e.g., sound insulated homes, schools, nursing homes, hospitals, libraries) that would otherwise be considered incompatible with aircraft and airport operations. See Table X, Land Use Compatibility Guidelines – FAR Part 150, to review the FAA land use compatibility table.

**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.

**Conditional Zoning:** The imposition or exaction of conditions or promises upon the grant of zoning by the zoning authority.

**Conformity (Air Quality):** No department, agency or instrumentality of the federal government shall engage in, support in any way or provide financial assistance for, license, or permit, or approve, any activity which does not conform to a State Implementation Plan (SIP).

**Transportation Conformity:** Federally funded or approved highway or transit projects; (and regionally significant non-federal highway and transit projects) within nonattainment and maintenance areas.

**Controlled Airspace:** An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

**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

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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.

**Delay:** The difference, in minutes, between the scheduled time and actual time of an aircraft arrival or departure. For airport planning purposes, it is often expressed as an annual average delay per aircraft operation (in minutes).

**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.

**Duration:** length of time, in seconds, a noise event such as an aircraft flyover is experienced.

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

**Easement:** An interest in land owned by another that entitles its holder to a specific limited use or enjoyment. Easements may include right of passage over, on, or below the property; certain air rights above the property, including view right; and the rights to any specified form of development or activity.

**Effective Perceived Noise Level (EPNL):** Time integrated perceived noise level calculated with adjustments for irregularities in the sound spectrum, such as that caused by discrete frequency components (tone correction)

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

**Environmental Assessment (EA):** A concise document that assesses the environmental impacts of a proposed federal action. The EA discusses the need for and environmental impacts of the proposed action and alternative actions. An EA should provide sufficient evidence and analysis for a federal determination whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact.

**Environmental Impact Statement (EIS):** A document that provides full and fair discussion of the significant environmental impacts that would occur as a result of a proposed project and informs decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts.

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**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.

**Euclidean Zoning:** A traditional legislative method or device for controlling land use by establishing districts with set boundaries and providing for specific uniform regulations as to type of permitted land use, height, bulk and lot coverage of structure, setback and similar building restrictions. (Reference from 1929 U.S. Supreme Court landmark decision upholding zoning as a means of land use control in “City of Euclid, Ohio v. Ambler Realty”)

**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 Aviation Regulations Part 77 “Objects Affecting Navigable Airspace”:** Part 77 (a) establishes standards for determining obstructions in navigable airspace; (b) defines the requirements for notice to the FAA Administrator of certain proposed construction or alteration; (c) provides for aeronautical studies of obstructions to air navigation to determine their effect on the safe and efficient use of airspace; (d) provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and (e) provides for establishing antenna farm areas.

**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.

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**Finding of No Significant Impact (FONSI):** A document briefly explaining the reasons an action will not have a significant effect on the human environment and therefore justifies the decision to not prepare an EIS. A FONSI is issued by the federal agency following the preparation of an EA.

**Fix:** A geographical position.

**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.

**General Conformity:** All federal actions (except those involving highways and transit projects) within non-attainment and maintenance areas that result in a net increase in emissions above specified de minimis levels.

**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.

**Grid Analysis:** A type of aircraft noise analysis, which evaluates the noise, levels at individual points rather than through the generation of noise contours.

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

**Growth Policy:** A local or regional governmental policy intended to influence the rate, amount, type, location and/or quality of future development within the Jurisdiction.

**Hourly Noise Level (HNL):** A noise metric that considers primarily those single events that exceed a specific threshold or duration during one hour.

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**Housing Codes:** The codes that usually apply to both existing and future living units. The codes include minimum standards of occupancy, and usually govern spatial, ventilation, wiring, plumbing, structural and heating requirements.

**Hubbing:** A method of airline scheduling that times the arrival and departure of several aircraft in a close time period to allow the transfer of passengers between different flights of the same airline. Several airlines may conduct hubbing operations at an airport.

**Incompatible Land Use:** The use of land, which is defined in Appendix A, Table 1 of FAR Part 150, which is normally incompatible with the aircraft and airport operations (such as homes, schools, nursing homes, hospitals, and libraries). See Table X, Land Use Compatibility Guidelines – FAR Part 150, of this guide to review the FAA land use compatibility table.

**Infrastructure:** A community's built elements that establish the community's foundation for maintaining existing populations, activities, future growth and development. Infrastructure elements include airports, roads and highways, bridges, water and sewer systems, waste disposal facilities, utilities and telecommunications systems, schools, and governmental and community facilities.

**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.

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**Land Use Compatibility:** The coexistence of land uses surrounding the airport with airport-related activities.

**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.

**Land Use Management Measures:** Land use management techniques that consist of both remedial and preventive measures. Remedial, or corrective, measures typically include sound insulation or land acquisition. Preventive measures typically involve land use controls that amend or update the local zoning ordinance, comprehensive plan, subdivision regulations, and building code.

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

**Landside:** That part of an airport used for activities other than the movement of aircraft, such as vehicular access roads and parking.

**Ldn:** Ldn is used in place of DNL in mathematical equations.

**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.

**Location Impact Analysis:** An analysis conducted to determine if noise level increases associated with projected development would approach the FAA threshold of a 1.5 DNL increase within the 65 DNL or greater noise contours over any noise-sensitive land use.

**Loudness:** The subjective intensity of sound.

**Maintenance Area:** A geographical area which was once designated as

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nonattainment but the pollution levels have met the National Ambient Air Quality standards for two consecutive years and has an approved maintenance plan which outlines how the geographical area will continue to meet these standards.

**Master Plan Update:** An update to the long-range airport development requirements.

**Mediation:** The use of a mediator or co-mediators to facilitate open discussion between disputants and assist them to negotiate a mutually agreeable resolution. Mediation is a method of alternative dispute resolution that provides an initial forum to informally settle disputes prior to regulatory intervention on the part of the FAA.

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

**Mitigation:** The avoidance, minimization, reduction, elimination, or compensation for adverse environmental effects of a proposed action.

**Mitigation Measure:** An action taken to alleviate adverse impacts.

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

**National Airspace System (NAS):** The common network of U.S. airspace.

**National Environmental Policy Act of 1969 (NEPA):** The original legislation establishing the environmental review process.

**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.

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**Noise Compatibility Plan (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 Compatibility Program:** See “Part 150 Study.”

**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 Impact Routing System (NIRS):** A computer simulation model that evaluates noise impacts in a defined area from the ground up to 18000 feet.

**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.

**Nonattainment:** Areas that exceeded the national ambient air quality standards for any of six pollutants (ozone, or smog; carbon monoxide; lead; particulate matter; or PM-10; or nitrogen dioxide)

**Nonconforming Use:** Any pre-existing structure, tree, or use of land that is inconsistent with the provisions of the local land use or airport master plans.

**Non directional Beacon (NDB):** A beacon transmitting nondirectional signals that can be used by pilots whose aircraft are equipped with direction finding equipment to determine a bearing to and from the station.

**Nonprecision Approach:** A standard instrument approach procedure providing runway alignment but no glide slope or decent information.

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

**Off-Airport Property:** Property that is beyond the boundary of land owned by the airport sponsor.

**Official Airline Guide (OAG):** Contains a listing of airline flight schedules.

**Official Map:** A legally adopted map that conclusively shows the locations and width of proposed streets, public facilities, public areas and drainage rights-of-way.

**On-Airport Property:** Property that is within the boundary of land owned by the airport sponsor.

**Outer Fix:** An air traffic control term to describe the fixes in the terminal area from which aircraft are normally cleared to the approach fix or final approach course.

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

**Part 150 Study:** Part 150 is the abbreviated name for the airport noise compatibility planning process outlined in Part 150 of the Federal Aviation Regulation (FAR) that allows airport owners to voluntarily submit noise exposure maps and noise compatibility programs to the FAA for review and approval. See Noise Compatibility Plan.

**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.

**Performance Standards:** Minimum acceptable levels of performance, imposed by zoning, that must be met by each land use.

**Positive Control:** The separation of all air traffic within designated airspace.

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

**Primary Commercial Service Airport:** A commercial airport which enplanes .01 percent or more of the total annual U.S. enplanements.

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**Primary Runway:** The runway used for the majority of airport operations. Large, high-activity airports may operate two or more parallel primary runways.

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

**Propagation:** Sound propagation refers to the spreading or radiation of sound energy from the noise source.

**Public Use Airport:** A publicly or privately owned airport that offers the use of its facilities to the public without prior notice or special invitation or clearance.

**Quadrant:** A quarter part of a circle, centered on a NAVAID oriented clockwise from magnetic north.

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

**Reliever Airport:** An airport that meets certain FAA criteria and relieves the aeronautical demand on a busier air carrier airport.

**Rotational Runway Use:** Variance in the use of runways over a specific time.

**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.

**Runway Use Program:** A noise abatement runway selection plan designed to enhance noise abatement efforts with regards to airport communities for arriving and departing aircraft.

**Single Event:** An occurrence of audible noise usually above a specified minimum noise level.

**Slant-Range Distance:** The straight line distance between an aircraft and a point on the ground.

**Sound Attenuation:** Acoustical phenomenon whereby a reduction of sound

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energy is experienced between the noise source and the receiver. This energy loss can be attributed to atmospheric conditions, terrain, vegetation, constructed features (e.g., sound insulation) and natural features.

**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 Exceptions:** Land uses that are not specifically permitted as a matter of right but can be permitted in accordance with performance standards and other local criteria. Also known as “conditional uses.”

**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.

**Standard Instrument Departure Procedure (SID):** A preplanned IFR air traffic control departure printed for pilot use in graphic and or text form. SID's provide transition from the terminal to the en route structure.

**Standard Terminal Arrival Routes (STARS):** A preplanned IFR air traffic control departure printed for pilot use in graphic and or text form. STARS provide transition from an en route structure to an outer fix or a instrument approach fix in the terminal area.

**State Implementation Plan (SIP):** a detailed description of the programs a state will use to carry out its responsibilities under the Clean Air Act. State Implementation Plans are collections of the regulations used by a state to reduce air pollution.

**Statute Mile:** A measure of distance equal to 5,280 feet.

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

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**Taxiway:** A defined path established for taxing 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.

**Time Above (TA):** Time above indicates the time in minutes that a given DBA level is exceeded in a 24 hour period.

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

**Transfer of Development Rights:** This involves separate ownership and use of the various "rights" associated with a parcel of real estate. Under this concept, some of the property's development rights are transferred to a remote location where they may be used to intensify allowable development.

**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.

**Variance:** An authorization for the construction or maintenance of a building or structure, or for the establishment or maintenance of a use of land that is prohibited by a zoning ordinance. A lawful exception from specific zoning ordinance standards and regulations predicated on the practical difficulties and/or unnecessary hardships on the petitioner being required to comply with those regulations and standards from which an exemption or exception is sought.

**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.

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**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.

**Wetlands Mitigation Banking:** involves consolidating fragmented wetland mitigation projects into one large contiguous site. Units of restored, created, enhanced or preserved wetlands are expressed as "credits" which may be withdrawn to offset "debits" incurred at a project development 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.

**Zoning Ordinance:** Primarily a legal document that allows a local government effective and legal regulation of uses of property while protecting and promoting the public interest.