

# **LIST OF ACRONYMS**

A	
AAC – Aircraft Approach Category	ARTCC Air Route Traffic Control Center
AC – Advisory Circular	ARTS Automated Radar Terminal System
A/C Aircraft	ASDA – Accelerated Stop Distance Available
ACAS Aircraft Collision Avoidance System	ASM Available Seat Mile
ACID Aircraft Identification	ASOS – Automated Surface Observation
ACIP Airport Capital Improvement Plan	System
ACN – Aircraft Classification Number	ASR Airport Surveillance Radar
ACRP Airport Cooperative Research	ASV Annual Service Volume
Program	ATA Air Transport Association of America
ADA Air Defense Area	ATC Air Traffic Control
ADF Automatic Direction Finding	ATCT Airport Traffic Control Tower
ADG Aircraft Design Group	ATIS Automated Terminal Information
ADI Automatic De-Ice and Inhibitor	Service
ADV Average Daily Vehicles	AVGAS – Aviation Gasoline (100LL)
ADIZ Air Defense Identification Zone	AWIS Airport Weather Information
ADO Airline Dispatch Office	AWOS Automated Weather Observation
AGL Above Ground Level	System
AID Airport Information Desk	B
AIG Airbus Industries Group	BMP – Best Management Practice
AIM Airman's Information Manual	BRL Building Restriction Line
AIP Airport Improvement Plan	BAC Based Aircraft Count
ALP Airport Layout Plan	<i>C</i>
ALS Approach Lighting System	CAA Civil Aviation Authority
ALSF1 ALS with Sequenced Flashers I	CAA Clean Air Act
ALSF2 ALS with Sequenced Flashers II	CAB Civil Aeronautics Board
AMASS Airport Movement Area Safety	CAD – Computer Aided Design
System	CAK The FAA's 3-letter identifier for the
AMOS Automated Meteorological	Akron-Canton Airport
Observation Station	CAT Category
AMP Airport Master Plan	CBIS Checked Baggage Inline Screening
ANG Air National Guard	CBP Customs and Border Protection
ANGB Air National Guard Base	CEQ Council on Environmental Quality
AOA Air Operations Area	CFR Code of Federal Regulations
APP – Approach	CMG – Cockpit ot Main Gear Distance
APV – Approach procedure with Vertical	CTAF Common Traffic Advisory Frequency
Guidance	CWY Clearway
ARFF Aircraft Rescue and Fire Fighting	D
ARC Airport Reference Code	DA Decision Altitude/Decision Height
ARP Airport Reference Point	dBA Decibels A-weighted
ARSR Air Route Surveillance Radar	DBE Disadvantaged Business Enterprise DEP Departure

DF Direction Finder DH Decision Height DME Distance Measuring Equipment DNL Day/Night Equivalent Sound Level DOD Department of Defense DOI Department of Interior DOS Department of State DOT Department of Transportation	HF High Frequency HUD Housing and Urban Development
EA Environmental Assessment EDS – Explosion Detection System EIS Environmental Impact Statement ELT Emergency Locator Transmitter EMAS Engineered Materials Arresting System	ILS Instrument Landing System IM Inner Marker IMC Instrument Meteorological Conditions INM Integrated Noise Model
ENAV En Route Navigational Aids EPA Environmental Protection Agency ETA Estimated Time of Arrival	LDA Landing Directional Aid or Landing Distance Available LEFAA FAA Layered Elastic Design Program
FAA Federal Aviation Administration FAF Final Approach Fix FAP Final Approach Point FAR Federal Aviation Regulation FBO Fixed Base Operator FED Federal FIS Federal Inspection Station FL Flight Level FOIA Freedom Of Information Act	LIRL – Low Intensity Runway Light LF Low Frequency LLWAS Low Level Wind Shear Alert System LOC Localizer LOI Letter of Intent LORAN Long Range Aid to Navigation LOS – Line of Sight LPV – Localizer Performance with Vertical
FONSI Finding of No Significant Impact FP Flight Plan FSS Flight Service Station	Guidance  LRNAV Long Range Navigation   MALS Medium Intensity Approach
GA General Aviation GC Ground Control GPS Global Positioning Satellite GPWS Ground Proximity Warning System GQS - Glide Path Qualification Surface GS Glide Slope Indicator GSE Ground Support Equipment	Lighting System  MALSF MALS with Sequenced Flashers  MALSR MALS with Runway Alignment Indicator Lights  MAP Missed Approach Point  MDA Minimum Descent Altitude  MGW – Main Gear Width  MIRL Medium Intensity Runway Lights
HATh – Height above Threshold HAZMAT Hazardous Materials HELI Heliport HIRL High Intensity Runway Edge Lighting	MISC Miscellaneous MLS Microwave Landing System MM Middle Marker MOA Military Operations Area

MSA -- Minimum Safe Altitude PCN -- Pavement Classification Number MSA – Metropolitan Statistical Area PFC -- Passenger Facility Charge MSL -- Mean Sea Level PGP -- Planning Grant Program MTOW -- Maximum Take-off Weight PIC -- Principal Interexchange Carrier PIDP -- Programmable Indicator Data MVFR -- Marginal Visual Flight Rules ----- N ------Processor PIR -- Precision Instrument Runway NAS -- National Airspace System or Naval Air Station PIREP -- Pilot Weather Report NASP -- National Airspace System Plan PMAD -- Peak Month Average Day **NAVAID** -- Navigation Aid PMS -- Program Management System NCP -- Noise Compatibility Program POFZ -- Precision Obstacle Free Zone NDB -- Non-Directional Radio Homing PR -- Primary Commercial Service Airport **PVC -- Poor Visibility Conditions** Beacon ----- R -----**NEM -- Noise Exposure Map** NEPA -- National Environmental Policy Act RAIL -- Runway Alignment Indicator Lights **NEXRAD** -- Next Generation Weather Radar RAPCON -- Radar Approach Control (FAA) NM -- Nautical Mile RDC -- Runway Design Code NOAA -- National Oceanic and Atmospheric REIL -- Runway End Identification Lights Administration RF -- Radio Frequency NOTAM -- Notice to Airmen RJ -- Regional Jet NPDES - National Pollution Discharge RL -- General Aviation Reliever Airport RNAV -- Area Navigation Elimination System NPE -- Non-primary Airport Entitlement ROFA -- Runway Object Free Area NPIAS -- National Plan of Integrated Airport ROFZ – Runway Obstacle Free Zone **Systems ROD** -- Record of Decision NTSB -- National Transportation Safety **RON** -- Remaining Overnight Board RPZ -- Runway Protection Zone NXRAD -- Next Generation Weather Radar RRC - Runway reference Code ----- O ------RSA -- Runway Safety Area RVR -- Runway Visual Range OAG -- Official Airline Guide OCS -- Obstacle Clearance Surface RW – Runway ----- S ------**ODALS** -- Omnidirectional Airport Lighting SEL -- Single Event Level System ODOT – Ohio Department of Transportation SIP -- State Implementation Plan OFA -- Object Free Area SM -- Statute Miles OFZ -- Obstacle Free Zone SMGC -- Surface Movement Guidance and OM -- Outer Marker Control ----- P ------SMS -- Safety Management System PAL -- Planning Activity Level SPCC - Spill Prevention, Control and PAPI -- Precision Approach Path Indicator Countermeasures Plan PAR -- Precision Approach Radar SRE - Snow Removal Equipment PAX -- Passenger SSALR -- Simplified Short Approach lighting PCC -- Portland Cement Concrete System with Runway Alignment Indicator PCI -- Pavement Condition Index Lights

SSCP – Security Screening Checkpoint VDME -- VOR with Distance Measuring STD -- Standard Equipment STOL -- Short Takeoff and Landing VF -- Voice Frequency SWM – Stormwater Management VFR -- Visual Flight Rules SWPPP - Stormwater Pollution Prevention VHF -- Very High Frequency Plan VLF -- Very Low Frequency ----- T -----**VMC** -- Visual Meteorological Conditions TAAS -- Terminal Advance Automation VOR -- VHF Omnidirectional Range System VOR/DME -- VHF Omnidirectional TAC -- Technical Advisory Committee Range/Distance Measuring Equipment **VORTAC -- VOR collocated with TACAN** TACAN -- Tactical Aircraft Control and Navigation VPD – Vehicles per Day TAF - FAA Terminal Area Forecast VTOL -- Vertical Takeoff and Landing TARS -- Terminal Automated Radar Service ----- W -----TAS -- True Air Speed WAAS -- Wide Area Augmentation System TCAS -- Traffic Alert And Collision Avoidance WX -- Weather System TCH – Threshold Crossing Height TDG - Taxiway Design Group **TERPS -- Terminal Instrument Procedures** TH -- Threshold TL -- Taxilane TODA -- Take-off Distance Available TOFA – Taxiway Object Free Area TORA -- Take-off Run Available TRACON -- Terminal Radar Approach Control Facility TRB -- Transportation Research Board TSA -- Taxiway Safety Area TSA -- Transportation Security Administration TW -- Taxiway TWR-- Tower (non-controlled) ----- U -----UAS – Unmanned Aircraft System UHF -- Ultra High Frequency **USC -- United States Code** USDA - United States Department of Agriculture USGS – United States Geological Survey ------ V ------**VALE** -- Voluntary Airport Low Emission

VASI -- Visual Approach Slope Indicator

#### **GLOSSARY OF TERMS**

# <u>A</u>

**Advisory Circular (AC)** – A document published by the Federal Aviation Administration (FAA) giving guidance on aviation issues, and which becomes binding on those airports receiving federal grant funding.

**Aeronautical Study** – A study performed pursuant to FAR Part 77 "Objects Affecting Navigable Airspace" concerning the effect of proposed construction or alternation on the use of air navigation facilities or navigable airspace by aircraft. The conclusion of each study is normally a determination as to whether the specific proposal studied would be a hazard to air navigation and/or a determination for marking and/or lighting.

**Air Cargo** - Freight, mail and express traffic transported by air, including: (1) Freight and Express - commodities of all kinds, including small-package counter services, express services and priority reserved freight; and (2) Mail - all classes of mail transported for the U.S. Postal Service (USPS)

Air Carrier – An operator which: (1) performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week and places between which such flights are performed; or (2) transport mail by air pursuant to a current contract with the U.S. Postal Service.; Certified in accordance with Federal Aviation Regulation (FAR) Parts 121 and 127.

**Air Route Traffic Control Center (ARTCC)** – A facility established to provide air traffic control service to aircraft operating on an IFR flight plan within controlled airspace and principally during the en-route phase of flight.

**Air Taxi** – An air carrier certificated in accordance with FAR Part 135 and authorized to provide, on demand, public transportation of persons and property by aircraft. Generally operates small aircraft "for hire" for specific trips.

Air Traffic Control Tower (ATCT) – A central operations facility in the terminal air traffic control system, consisting of a tower, including an associated IFR room if radar equipped, using air/ground communications and/or radar, visual signaling, and other devices to provide safe and expeditious movement of terminal air traffic.

**Aircraft Approach Category (AAC)** – An aircraft approach category is a FAA grouping of aircraft based on approach speed. The aircraft approach categories are:

- (1) Category A: Speed less than 91 knots;
- (2) Category B: Speed 91 knots or more but less than 121 knots;
- (3) Category C: Speed 121 knots or more but less than 141 knots;
- (4) Category D: Speed 141 knots or more but less than 166 knots.

**Airline** – A business that provides scheduled or chartered air transport of passengers and/or cargo.

**Airplane Design Group (ADG)** - The FAA Airplane Design Group subdivides airplanes by wingspan. The airplane Design Groups are:

- (1) Group I: Wingspan up to but not including 49 feet (15 m);
- (2) Group II: Wingspan 49 feet (15 m) up to but not including 79 feet (24 m);
- (3) Group III: Wingspan 79 feet (24 m) up to but not including 118 feet (36 m);
- (4) Group IV: Wingspan 118 feet (36 m) up to but not including 171 feet (52 m);
- (5) Group V: Wingspan 171 feet (52 m) up to but not including 197 feet (60 m)
- (6) Group VI: Wingspan 197 feet (60 m) up to but not including 262 feet (80 m).

**Airport** – Any area of land or water, within or without this state, that is used, or intended for use, for the landing and take–off of aircraft, and any appurtenant areas that are used, or intended for use, for airport buildings or other airport facilities or rights of way, together with all airport buildings and facilities located thereon.

**Airport Development Zone** – A zone which replaces the existing zoning for the airport property encompassing the land presently owned by the airport and, if feasible, areas identified for future purchase, clear zones and areas with noise levels greater than DNL 70.

**Airport Elevation** – The established elevation of the highest point on the usable landing area.

**Airport Hazard** – Any structure, tree, or use of land that obstructs the airspace required for, or is otherwise hazardous to, the flight of aircraft in landing or taking off at the airport; and any use of land which is hazardous to persons or property because of its proximity to the airport.

**Airport Improvement Program (AIP)** – Established under the *Airport and Airway Improvement Act of 1982*, this program provides grants to public agencies - and, in some cases, to private owners and entities - for the planning and development of public-use airports that are included in the National Plan of Integrates Airport Systems. Eligible projects include those improvements related to enhancing airport safety, capacity, security and environmental concerns.

**Airport Influence Area** - The area in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses.

Airport Layout Plan (ALP) – A scaled drawing of existing and proposed airside and landside 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 non-aviation areas and improvements. The ALP may also depict those properties adjacent to the airport ownership that may have legal access to the airport.

**Airport Layout Plan Set** – This document typically contains a set of drawings which illustrate the existing and future development of the airport. An ALP set may often contain the following: (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** – Long-term development plan for the airport adopted by the airport sponsor.

**Airport Noise Abatement Program** – A program designed to reduce noise around an airport through changes in the manner in which aircraft are flown, or changes in the operation or layout of the airport.

**Airport Obstruction Zoning Ordinance** – A local height restriction ordinance which follows FAR Part 77, implements a local community's comprehensive plan, and provides specific height standards for the area beneath the airport Imaginary surface

**Airport Reference Code (ARC)** – The ARC is an FAA coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport. ARC designations are made up of the Aircraft Approach Category and Airplane Design Group and accordingly indicated in an alpha-numeric fashion.

**Airport Reference Point** – The latitude and longitude of the approximate center of the airport, based upon the runway facilities.

**Airport Sponsor** – The municipality or authority of the airport allowed to apply for and receive grants. Synonymous with owner. For the Akron-Canton Airport, the sponsor is the Akron-Canton Regional Airport Authority.

**Airport Use Agreement** – Legal contract for the air carriers' use of the airport and leases for use of terminal facilities

**Airport Vicinity** – The land use and people in the areas surrounding an airport which can be directly affected by the operation of the airport.

**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** – Space above the ground in which aircraft travel. Often airspace is divided into corridors, routes, and restricted zones. Differing categories of airspace, as defined by the FAA, have specific equipment and operational requirements to operate within that airspace.

**Akron-Canton Regional Airport Authority** – The airport "sponsor" or owner of the Akron-Canton Airport. Also referred to as the "Airport Authority." The Authority is a political subdivision of the state, formed by Summit and Stark counties, and is responsible for the governance and strategic direction of the Airport. The eight-member board of trustees is

comprised of four members appointed by the Stark County Commissioners and four members appointed by the Summit County Executive, and approved by Council.

**Approach Procedure with Vertical Guidance (APV)** – An Instrument Approach Procedure (IAP) providing both vertical and lateral electronic guidance.

**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.

**Apron** - The part of an airport provided for the stationing of aircraft for the embarkation and disembarkation of passengers, for loading and unloading of cargo and for parking

**Area Navigation (RNAV)** – RNAV is a system that allows navigation on any desired flight path, rather than one defined by ground-based fixed airways. An RNAV system can determine position by referencing the position of ground- or space-based navigation aids, such as the Global Positioning System (GPS), using onboard flight management computers.

**Automated Weather Observing System (AWOS)** - automated sensor suites which are designed to serve aviation and meteorological observing needs for safe and efficient aviation operations and weather forecasting.

**Aviation Gasoline (Avgas)** – Gasoline that has been manifested as "aviation gasoline" and meets the specifications in ASTM specification D 910-96. Used for piston engine aircraft.

**Aviation-Related Use** – Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport. Such uses specifically include runways, taxiways, and their associated protected areas defined by the Federal Aviation Administration, together with aircraft aprons, hangars, fixed base operations facilities, terminal buildings, etc.

**Avigation Easement** – A grant of a property interest in land over which a right of unobstructed flight in the airspace is established; which prohibits any structures, growth, or other obstructions from penetrating the approach surface (not limited to approach surfaces); and which provides a right of entry to remove, mark, or light any structure or any such obstruction.

<u>B</u>

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

**Building Restriction Line (BRL)** – A line that identifies suitable and unsuitable locations for buildings on airports.

**Bypass Taxiway** – A taxiway used to reduce aircraft queuing demand by providing multiple takeoff points.

Category-I (CAT-I) ILS — A precision instrument approach with a Height Above Threshold (HATh) or minimum descent altitude not lower than 200 ft and with either a visibility not less than  $\frac{1}{2}$  statute mile, or a runway visual range not less than 1800 ft.

Category-II (CAT-II) ILS – A precision instrument approach with a Height Above Threshold (HATh) lower than 200 ft but not lower than 100 ft and a runway visual range not less than 1200 ft.

**Category-III (CAT-III)** ILS – A precision instrument approach with a Height Above Threshold (HATh) lower than 100 ft, or no HATh, or a runway visual range less than 1200 ft.

**Circling Approach** – A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or is not desirable.

**Clearway (CWY)** – A defined rectangular area beyond the end of a runway cleared or suitable for use in lieu of runway to satisfy takeoff distance requirements (see also Declared Distances - Takeoff Distance Available [TODA]).

**Cockpit to Main Gear Distance (CMG)** – The distance from the pilot's eye to the main gear turn center.

**Commercial Aviation** – A sector of the U.S. economy comprising scheduled and nonscheduled passenger and cargo airlines, aviation manufacturers, airport and aircraft service providers (including government services) and air cargo service providers.

**Commercial Service Airport** – As defined by Federal law, an airport receiving scheduled passenger service and having 2,500 or more enplaned passengers per year.

**Compass Calibration Pad** – An airport facility used for calibrating an aircraft compass.

**Compatible Land Use** – As defined in FAR 150: The use of land (e.g. commercial, industrial, agricultural) that is normally compatible with aircraft and airport operations, or sound insulated land uses (e.g. sound insulated homes, schools, nursing homes, hospitals, libraries) that would otherwise be considered incompatible with aircraft and airports operations.

**Concession Agreement** – An agreement between the airport and a concession regarding the conduct of business on airport property.

**Conical Surface** – A surface defined by FAR Part 77 "Objects Affecting navigable Airspace" that extends upward and outward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet as measured outward from the periphery of the horizontal surface.

**Crossover Taxiway** – A taxiway connecting two parallel taxiways (also referred to as a transverse taxiway).

**Crosswind** — Wind that has a perpendicular component to the direction of travel making landings and takeoffs more difficult than if the wind were blowing straight down the runway.

**Day-Night Average Sound Level (DNL)** – The noise metric adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods. The mathematical symbol is Ldn.

**Decibel (dB)** – A unit for describing the intensity or level of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to a standard reference pressure.

**Declared Distances** – Declared distances are a means of obtaining a standard safety area by reducing the usable runway length.

- (1) TORA Takeoff Run Available: The length of runway declared available and suitable for the ground run of an airplane taking off.
- (2) TODA Takeoff Distance Available: The length of the takeoff run available plus the length of the clearway, if clearway is provided.
- (3) ASDA Accelerate-Stop Distance Available: The length of the takeoff run available plus the length of the stopway, if stopway is provided.
- (4) LDA Landing Distance Available: The length of runway which is declared available and suitable for the ground run of an airplane landing.[6]
- (5) EDA Emergency Distance Available: LDA (or TORA) plus a stopway.

**Departure End of Runway (DER)** – The end of the runway that is opposite the landing threshold. It is sometimes referred to as the stop end of runway.

**Design Aircraft** — An aircraft with characteristics that determine the application of airport design standards for a specific runway, taxiway, taxilane, apron, or other facility. This aircraft can be a specific aircraft model or a composite of several aircraft using, expected, or intended to use the airport or part of the airport. Also called the "critical aircraft" or "critical design aircraft."

**Displaced Threshold** – A landing threshold that is located at a point on the runway other than the designated beginning of the runway.

**Distance Measuring Equipment (DME)** – Equipment (airborne and ground) used to measure, in nautical miles, the slant ranged distance of an aircraft from the DME navigational aid.

E

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

**Enplaned Passengers** – The total number of revenue passengers boarding aircraft, including originating, stop-over, and transfer passengers, in scheduled and non-scheduled services.

**Entrance Taxiway** – A taxiway designed to be used by an aircraft entering a runway. Entrance taxiways may also be used to exit a runway.

**Exit Taxiway** – A taxiway designed to be used by an aircraft only to exit a runway:

- (1) Acute-Angled Exit Taxiway A taxiway forming an angle less than 90 degrees from the runway centerline.
- (2) High Speed Exit Taxiway An acute-angled exit taxiway forming a 30 degree angle with the runway centerline, designed to allow an aircraft to exit a runway without having to decelerate to typical taxi speed.

**Environmental Assessment (EA)** – In accordance with the National Environmental Policy Act, an EA is a concise document that assesses the potential environmental impacts of a proposed federal action. The EA discusses the purpose and need for the proposed action as well as the alternatives considered, the potential environmental impacts, the proposed mitigation measures and documents the public involvement process. 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)** – In accordance with the National Environmental Policy Act, an EIS is a document that provides full and fair discussion of the significant environmental impacts that could 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.

F

**FAR Part 36** – Federal Aviation Regulation that establishes noise standards for the civil aviation fleet.

FAR Part 77 – Federal Aviation Regulation, "Objects Affecting Navigable Airspace" that (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.

There are five types of imaginary airspace protection surfaces defined in FAR Part 77: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical. The dimensional requirements of each are determined by an airport's specific operational requirements.

**FAR Part 91** – Federal Aviation Regulation pertaining to air traffic and general operating rules, including operating noise limits over specific geographic areas.

**FAR Part 139** – Certification of Airports: The regulation governs the certification and operation of land airports which serve any scheduled or unscheduled passenger operation of an air carrier that is conducted with an aircraft having a seating capacity of more than 30 passengers.

**FAR Part 150** – Requires the FAA to establish regulations that set forth national standards for identifying airport noise and land-use incompatibilities and to develop programs to eliminate them.

**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)** – rules prescribed by the Federal Aviation Administration governing all aviation activities in the United States. The FAR's are part of Title 14 of the Code of Federal Regulations. The rules are designed to promote safe aviation, protecting pilots, passengers and the general public from unnecessary risk. They are also intended to protect the national security of the United States.

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

**Fiscal Year (FY)** – The 12-month period for which the federal government sets its budget and measures operational performance, beginning October 1 and ending September 30 of the subsequent year. The fiscal year is designated by the calendar year in which it ends (i.e., FY2010 begins October 1, 2009, and ends September 30, 2010).

**Fixed Base Operator (FBO)** – A provider of service to users of an airport. Such services include, but are not limited to, fueling, hangaring, flight training, repair and maintenance.

**Fixed-By-Function Navigation Aid (NAVAID)** – An air navigation aid that must be positioned in a particular location in order to provide an essential benefit for aviation is fixed-by-function.

**Frangible** – Retains its structural integrity and stiffness up to a designated maximum load, but on impact from a greater load, breaks, distorts, or yields in such a manner as to present the minimum hazard to aircraft. See



**General Aviation (GA)** – All civil aircraft and aviation activity except that of the certified air carriers and military operations. GA includes corporate flying and private flying (recreation or personal).

**Glide Slope** – Vertical guidance provided by a ground based radio transmitter to an aircraft landing by use of an Instrument Landing System. This guidance informs the pilot if the aircraft is either too high or too low as it flies its approach to the runway for landing.

Global positioning system (GPS) – A worldwide radio-navigation system formed from a matrix of satellites and their ground stations. GPS is funded by and controlled by the U. S. Department of Defense (DOD). While there are many thousands of civil users of GPS world-wide, the system was designed for and is operated by the U. S. military. GPS provides specially coded satellite signals that can be processed in a GPS receiver, enabling the receiver to compute position, velocity and time.

**Hazard to Air Navigation** – An existing or proposed object that the FAA, as a result of an aeronautical study, determines will have a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft, operation of air navigation facilities, or existing or potential airport capacity.

**Height Above Threshold (HATh)** – The height of the Decision Altitude (DA) or Minimum Descent Altitude (MDA) above the threshold.

**Hot Spot** – A location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary.

**Helipad** – A small, designated area, usually with a prepared surface, on a heliport or airport, used for the landing and takeoff of helicopters

**Horizontal Surface**— An airspace surface 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway and connection the adjacent arcs by lines tangent to those arcs.

1

**Incompatible Land Use** – The use of land which is normally incompatible with aircraft and airport operations (such as homes, schools, nursing homes, hospitals, and libraries).

**Instrument Approach Procedure (IAP)**: 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. It is prescribed and approved for a specific airport the FAA.

**Instrument Departure Runway** – A runway identified by the airport operator, through the appropriate FAA Airports Office, to the FAA Regional Airspace Procedures Team intended primarily for instrument departures.

**Instrument Flight Rules (IFR):** Rules governing flight relying on the aircraft's instruments and navigation aids. IFR permits aircraft to fly in certain limited visibility and cloud conditions. Virtually any commercial operation - including airlines and business jets - utilizes the IFR system.

**Instrument Landing System (ILS):** a precision instrument approach system which provides radio-based horizontal and vertical guidance to an aircraft approaching a runway. It is used to guide landing aircraft during conditions of low visibility.

**Instrument Runway** – A runway equipped with electronic and visual navigation aids for which a precision or non-precision instrument approach procedure having straight-in landing minimums has been approved.

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.

## K

**Knot** – An abbreviation for one nautical mile per hour. Since a nautical mile is 15 percent longer than a statute mile, a speed expressed in knots is 15 percent higher than it would be if expressed in miles per hour.

## L

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

**Large Airplane** – An airplane of more than 12,500 pounds maximum certificated takeoff weight.

**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 within a 20-mile radius of the control tower or airport, or (c) executes a simulated instrument approach or low pass at the airport.

**Load Factor (LF)** – The percentage of available seats that are filled with paying passengers, or of freight capacity that is utilized.

**Localizer (LOC)** – The component of an ILS which provides horizontal guidance to the runway centerline for aircraft during approach and landing by radiating a directional pattern of radio waves modulated by two signals which, when received with equal intensity, are displayed by compatible airborne equipment as an "on-course" indication, and when received in unequal intensity are displayed as an "off-course" indication.

# <u>M</u>

**Main Gear Width (MGW)** – The distance from the outer edge to outer edge of the widest set of main gear tires.

**Medium Intensity Runway Lights (MIRL)** – For use on VFR runways or runway showing a nonprecision instrument flight rule (IFR) procedure for either circling or straight-in approach

**Military Operation** – An aircraft operation conducted by either a fixed-wing or rotorwing military aircraft.

**Minimum Descent Altitude (MDA)** – The lowest authorized altitude on an approach that does not have vertical guidance. MDA is referenced to mean sea level (MSL).

**Modification to Standards** – Any approved nonconformance to FAA standards, other than dimensional standards for Runway Safety Areas (RSAs), applicable to an airport design,

construction, or equipment procurement project that is necessary to accommodate an unusual local condition for a specific project on a case-by-case basis while maintaining an acceptable level of safety.

**Movement Area** – The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft including helicopters and tiltrotors, exclusive of loading aprons and aircraft parking areas (reference Part 139).

## N

**National Airspace System (NAS)** – The common network of U.S. airspace, air navigation facilities, equipment and services, airports or landing areas.

National Plan of Integrated Airport Systems (NPIAS) – Prepared by the FAA, a primary purpose of the NPIAS is to identify the airports that are important to national air transportation and are thus 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 (NM)** – A measure of distance equal to one minute of arc on the earth's surface, which is approximately 6,080 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** – Defined subjectively as unwanted sound, the measurement of noise evaluates three characteristics of sound: intensity, frequency, and duration.

**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 Exposure Contours** – Lines drawn around 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 exposure 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-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.

**Non-directional Beacon (NDB)** – A radio beacon transmitting non-directional signals that a pilot of an aircraft equipped with direction finding equipment can determine his/her bearing to or

from the radio beacon and "home in" on or track to or from the station. When the radio beacon is installed in conjunction with the instrument landing system marker, it is normally called a compass locator.

**Non-movement Area** – The areas of an airport that are used for taxiing or hover taxiing, or air taxiing aircraft including helicopters and tilt-rotors, but are not part of the movement area (i.e., the loading aprons and aircraft parking areas).

**Non-precision Instrument Runway** – A runway with a straight-in instrument approach procedure using either ground-based or satellite-based air navigation facilities.

**Non-precision Approach Procedure** – A straight-in instrument approach procedure that provides course guidance, with or without vertical path guidance, with visibility minimums not lower than 3/4 mile (4000 RVR), such as VOR, GPS, RNAV, ASR, LDA, SDF, TACAN, NDB, or LOC.

**Notice to Airmen (NOTAM)** – A notice containing information concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the National Airspace System) and the timely knowledge of which is essential to personnel concerned with flight operations.

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**Object** – Includes but is not limited to, above ground structures, Navigational Aids (NAVAIDs), equipment, vehicles, natural growth, terrain, and parked or taxiing aircraft.

**Object Free Area (OFA)** – An area centered on the ground on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by remaining clear of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

**Obstacle** – An existing object at a fixed geographical location or which may be expected at a fixed location within a prescribed area with reference to which vertical clearance is or must be provided during flight operation.

**Obstacle Clearance Surface (OCS)** – An evaluation surface that defines the minimum required obstruction clearance for approach or departure procedures.

**Obstacle Free Zone (OFZ)** – Is the three-dimensional airspace along the runway and extended runway centerline that is required to be clear of obstacles for protection for aircraft landing or taking off from the runway and for missed approaches.

**Obstruction to Air Navigation** – An object of greater height than any of the heights or surfaces presented in Subpart C of Title 14 CFR Part 77, Standards for Determining Obstructions to Air Navigation or Navigational Aids or Facilities.

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

**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.

**Passenger** – Revenue paying individual boarding an aircraft for scheduled service.

Passenger Facility Charge (PFC) – A tax authorized by Congress, approved by FAA, assessed by airports and collected by airlines (on behalf of airports) as an add-on to the passenger airfare. PFCs are used by airports to fund FAA-approved projects that enhance safety, security or capacity; reduce noise; or increase air carrier competition. The PFC program authorizes the collection of fees up to \$4.50 for every enplaned passenger at commercial airports controlled by public agencies.

**Peaking Operation** – Peak hour aircraft operational projections are required to determine the peak period capacity of a runway system, as well as for determining the size of the various functional areas of a passenger terminal.

**Precision Approach (PA)** – An instrument approach procedure that provides course and vertical path guidance with visibility below 3/4 mile (4000 RVR).

**Precision Approach Path Indicator (PAPI)** – A NAVAID used primarily under VFR conditions. The PAPI provides visual decent guidance to aircraft on approach to landing through a single row of two to four lights, radiating a high intensity red or white beam to indicate whether the pilot is above or below the required approach path to the runway. The PAPI has an effective visual range of 5 miles during the day and 20 miles at night.

**Precision Instrument Runway** – A runway having an existing instrument landing system (ILS).

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

**Primary Surface** –A primary surface is longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway. When the runway has no specially prepared hard surface, or planned hard surface, the primary surface terminates at each end of the runway. The width of a primary surface ranges from 250 feet to 1,000 feet, depending on the existing or planned approach system. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.



**Radar** — Term coined from the phrase "Radio Detecting and Ranging." It is based on the principle that ultra-high frequency radio waves travel at a precise speed and are reflected from objects they strike. It is used to determine an object's direction and distance.

**Ramp** – see Apron.

**Regional Airline** – Airlines providing short- and medium-haul scheduled airline service typically connecting smaller communities with larger cities and hub airports and operating turboprops of 9-78 seats and jets of 30-108 seats. Arrangements with mainline partners commonly take the form of contract flying or pro-rate flying.

**Reliever Airport** – An FAA NPISAS designation for an airport intended to serve general aviation aircraft which might otherwise use a congested air-carrier served airport.

**Revenue Bonds** — Bonds which are payable solely from the revenues derived from the operation of a facility which was constructed or acquired with the proceeds of the bonds.

**Rotating Beacon** – A visual NAVAID operated at many airports. At civil airports, alternating white and green flashes indicate the location of the airport.

**Runway** – Any existing or planned paved surface or turf covered area of the airport which is specifically designated and used or planned to be used for the landing and/or taking off of aircraft.

**Runway Blast Pad** – A surface adjacent to the ends of runways provided to reduce the erosive effect of jet blast and propeller wash.

**Runway End Identifier Lights (REIL)** – Two synchronized flashing lights, one on each side of the runway threshold, which provide rapid and positive identification of the approach end of a particular runway.

**Runway Gradient** – The average gradient consisting of the difference in elevation of the two ends of the runway divided by the runway length. This is provided that no intervening point on the runway profile lies more than five feet above or below a straight line joining the two ends of the runway. In excess of five feet the runway profile will be segmented and aircraft data will be applied for each segment separately.

**Runway Protection Zone (RPZ)** – The RPZ is defined by the FAA as a trapezoid-shaped area centered about the extended runway centerline that is used to enhance the safety of aircraft operation. 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 for the particular runway. The depth of the RPZ can vary from 1,000 feet to 2,500 feet depending on the type of aircraft and approach minimums designated for that specific runway.

**Runway Safety Area (RSA)** – A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

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**Scheduled Service** – Air transport service which is based on published flight schedules.

**Separation Minima** – As prescribed and managed by Air Traffic Control, this is the minimum displacements between an aircraft and a hazard, including another aircraft, that maintain the risk of collision at an acceptable level of safety.

**Shoulder** – An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface; support for aircraft running off the pavement; enhanced drainage; and blast protection.

**Slope** – An incline from the horizontal expressed in an arithmetic ratio of horizontal magnitude to vertical magnitude.

Small Airplane – An airplane of 12,500 pounds or less maximum certificated takeoff weight.

**Special Use Airspace (SUA)** – A part of airspace that is reserved for flight operations that are not in a "normal" category. The aircraft participating in the SUA activities are separated from other controlled traffic by the boundaries of the SUA airspace. In some cases, non-participating aircraft may enter SUA, but have limitations imposed on their operations. Generally, SUA is used for military activity, but civilians use such airspace to test new aircraft. The space program is also a large user of SUA.

**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.

**Stage length** – The distance traveled by an aircraft from takeoff to landing. Average stage length is computed as the ratio of aircraft miles (or kilometers) to aircraft departures.

**Stopway** – An area beyond the takeoff runway, no less wide than the runway and centered upon the extended centerline of the runway, able to support the airplane during an aborted takeoff, without causing structural damage to the airplane, and designated by the airport authorities for use in decelerating the airplane during an aborted takeoff. A blast pad is not a stopway.

**Straight-In Instrument Approach** – Entry into the traffic pattern by interception of the extended runway centerline (final approach) without executing any other portion of the traffic pattern.

**Structure** – An object anchored, constructed, attached, erected, gathered, located, placed, piled, or installed by man, either on the ground or in or over a body of water, either moveable or immovable, and either temporary or permanent. The term "structure" includes, but is not limited to, antennae, buildings, cranes, fences, overhead transmission lines, patios and decks, man-made ponds, signs and sign structures, smokestacks, towers, utility poles, wires, and anything attached to any of the foregoing either temporarily or permanently.

<u>T</u>

**Taxilane (TL)** – The portion of the aircraft parking area used for access between taxiways and aircraft parking positions.

**Taxiway (TWY)** – A defined path established for the taxiing of aircraft from one part of an airport to another.

**Taxiway Design Group (TDG)** – A classification of airplanes based on outer to outer Main Gear Width (MGW) and Cockpit to Main Gear distance (CMG).

**Taxiway Safety Area (TSA)** – A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

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

**Terminal Area Forecast (TAF)** – An annual FAA forecast of aviation activity throughout the US used in the FAA's planning and decision making. The TAF is a subset of approximately 900 airports in the National Plan of Integrated Airport Systems (NPIAS) database that contains over 4000 airports.

**Terminal Radar Approach Control Facility (TRACON)** – The facility that controls airplanes, typically when they are within 30 miles of the airport, or transiting airspace near the airport. As of August 1, 2006, there were 168 TRACONs in the United States.

**Threshold** – The beginning of that portion of the runway usable for landing. In some instances, the threshold may be displaced. "Threshold" always refers to landing, not the start of takeoff.

Threshold Crossing Height (TCH) – The theoretical height above the runway threshold at which the aircraft's glideslope (GS) antenna would be if the aircraft maintains the trajectory established by the Instrument Landing System (ILS) GS, or the height of the pilot's eye above the runway threshold based on a visual guidance system.

**Thrust** – The force produced by a jet engine or propeller. As defined by Newtonian physics, it is the forward reaction to the rearward movement of a jet exhaust.

**Touch-and-Go** - An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway.

**Traffic Pattern** - The traffic flow that is prescribed for aircraft landing at, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach.

**Transitional Surface** – An element of the Imaginary Surfaces extending outward and upward at right angles to the runway centerline and runway centerline extended at a slope of 7:1 from the sides of the primary and approach surfaces to where they intersect the horizontal and conical surfaces.

**Transponder** – An on-aircraft electronic device that "responds" to interrogation by ground-based radar with a special four-digit code that air traffic control specifically assigns to the aircraft. Certain transponders have the ability to transmit automatically the altitude of the aircraft in addition to the special code.

**Turboprop** – A type of engine that uses a jet engine to turn a propeller. Turboprops are often used on regional and business aircraft because of their relative efficiency at speeds slower than, and altitudes lower than, those of a typical jet.

**Unit cost** – The average amount of operating expenses incurred per unit of output, typically measured in cents per available seat mile or available ton mile, commonly referred to as CASM or CATM.

**Utility Runway** – This is a runway that is constructed for and intended to be used by propeller-driven aircraft of 12,500 pounds maximum gross weight.

### V

**Variance** – Any modification or variation of local zoning ordinance provisions where it is determined that, by reason of exceptional circumstances, the strict enforcement of the ordinance provision(s) would cause "practical difficulty or unnecessary hardship."

**Vector** – A heading issued to an aircraft to provide navigational guidance by radar.

**Very Light Jet (VLJ)** – A small jet aircraft approved for single-pilot operation, seating 4-8 people, with a maximum take-off weight of under 10,000 pounds.

**Visual Approach** – An approach operating in VFR conditions under the control of an air traffic facility and having an air traffic control authorization.

**Visual Approach Slope Indicator (VASI)** – A NAVAID primarily under VFR conditions. It provides vertical visual guidance to aircraft during approach and landing, by radiating a pattern of high intensity red and white focused light beams which indicate to the pilot that he/she is above, on, or below the glide path.

**Visual Flight Rules (VFR)** – Rules that govern the procedures for conducting flight under visual conditions. The term VFR is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate type of flight plan.

**Visual Runway** – A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure.

Very High Frequency Omnidirectional Range Station (VOR) — A ground-based electronic navigation aid transmitting very high frequency navigation signals, 360 degrees in azimuth, oriented from magnetic north.. The VOR periodically identifies itself by Morse Code and may have an additional voice identification feature.

**Very High Frequency Omnidirectional Range/Tactical Air Navigation (VORTAC)** – This is a navigation aid providing VOR azimuth and distance-measuring equipment (DME) at one site.

### W

Wide Area Augmentation System (WAAS) – A navigation system developed by the Federal Aviation Administration, which is accurate down to three meters (approximately 95 percent of the time). Accuracy is achieved through corrections to the surveyed location of 25 wide area reference stations on the ground and the Global Positioning System (GPS) signal. WAAS was commissioned in July 2003, and is currently used solely by general aviation.

**Wide-body Aircraft** – Generally considered being any airliner with more than one aisle in the passenger cabin. Examples of wide-body aircraft include the Airbus A300, A310, A330, A340, A350 and A380; the Boeing B-747, B-767, B-777, B-787, DC-10 and MD-11. Technically, any aircraft with a fuselage diameter in excess of 200 inches may be considered a wide-body.

**Wildlife Attractants** — Any human-made structure, land-use practice, or human-made or natural geographic feature that can attract or sustain hazardous wildlife within the landing or departure airspace or the airport's air operations area. These attractants include, but are not limited to, architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

**Wildlife Hazards** – Species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard.

**Wind Coverage** – Amount of the time an Airports runway allows landings due to crosswind requirements, based on average wind directions and speeds.

**Wingspan** – The maximum horizontal distance from one wingtip to the other wingtip, including the horizontal component of any extensions such as winglets or raked wingtips.

# Z

**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, use and land coverage's of buildings within each zone.

**Zoning Ordinance** – Primarily, it's a legal document that allows a local government effective and legal regulation of uses of property while protecting and promoting the public interest. The zoning ordinance usually consists of text and official zoning map.