

APPENDICES

APPENDIX A

AVIATION GLOSSARY OF TERMS

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Above Ground Level (AGL). An altitude that is measured with respect to the underlying ground.

Accelerate-stop distance available (ASDA). The runway plus stopway length declared available and suitable for the acceleration and deceleration of an airplane aborting a takeoff.

Administrator. Federal Aviation Administrator or any person to whom he has delegated his authority in the matter concerned.

Advisory Circular (AC). External communications or publications issued by the FAA to provide non-regulatory guidelines for the recommendations relative to a policy, and guidance and information relative to a specific aviation subject matter.

Air Carrier. A person or company who undertakes directly by lease, or other arrangement, to engage in air transportation.

Aircraft. A device that is used or intended to be used for flight in the air.

Airplane. An engine-driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wings.

- **Large Airplane.** An airplane of more than 12,500 pounds maximum certified takeoff weight.
- **Small Airplane.** An airplane of 12,500 pounds or less maximum certified takeoff weight.

Balloon. A lighter-than-air aircraft that is not engine-driven, and that sustains flight through the use of either gas buoyancy or an airborne heater.

Glider. A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose

free flight does not depend principally on an engine.

Heavy Aircraft. Aircraft capable of takeoff weight of more than 255,000 pounds whether or not they are operating at this weight during particular phase of flight.

Helicopter. A rotorcraft that, for horizontal motion, depends principally on its engine-driven rotors.

Large Aircraft. Aircraft of more than 41,000 pounds maximum certified takeoff weight, up to 255,000 pounds

Regional Jet (RJ). There is no regulatory definition for an RJ; however, for FAA use, an RJ is a commercial jet airplane that carries fewer than 100 passengers.

Rocket. An aircraft propelled by ejected expanding gases generate in engine from self-contained propellants and not dependants on the intake of outside substances.

Rotorcraft. A heavier-than-air aircraft that depends principally for its support in flight on the lift generated by one or more rotors.

Small Aircraft. Aircraft of 41,000 pounds or less maximum certified takeoff weight.

Aircraft Accident Safety Zone. This zone represents data clusters of historical aircraft accidents. The data is collected from the NTSB and analyzed in several studies to first determine the shape of the zone based on the greatest cluster of accident sites per acre and second on the ratio of accidents per acre changes.

Aircraft Approach Category. An alphabetical classification of an aircraft based upon 1.3 times the stall speed in a landing configuration at their maximum certified landing weight. The categories are as follows:

Category A: Speed less than 91 knots.

Category B: Speed 91 knots or more but less than 121 knots

Category C: Speed 121 knots or more but less than 141 knots.

Category D: Speed 141 knots or more but less than 166 knots.

Category E: Speed 166 knots or more.

Aircraft Deicing Pad. See *Deicing Pad*.

Aircraft Operation. See *Operation*.

Aircraft Rescue and Fire Fighting (ARFF). A special category of fire fighting that involves the response, hazard mitigation, evacuation and possible rescue of passengers and crew of an aircraft involved in (typically) an airport ground emergency.

ARFF Building. A facility located at an airport that provides emergency vehicles, extinguishing agents, and personnel responsible for minimizing the impacts of an aircraft accident or incident.

Airplane. See *Aircraft*

Airplane Design Group (ADG). A numerical classification aircraft based on wingspan or tail height. Where an airplane is in two categories, the most demanding category should be used. The groups are as follows:

Group I: Up to but not including 49 feet wingspan or tail height up to but not including 20 feet. (e.g. Cessna 172)

Group II: 49 feet up to but not including 79 feet wingspan or tail height from 20 up to not including 30 feet. (e.g. Cessna Citation Business jet).

Group III: 79 feet up to but not including 118 feet wingspan or tail height from 30 up to but not including 45 feet. (e.g. Boeing 737)

Group IV: 118 feet up to but not including 171 feet wingspan or tail height from 60 up to but not including 66 feet. (e.g. Boeing 767)

Group V: 171 feet up to but not including 214 feet wingspan or tail height from 60 up to but not including 66 feet. (e.g. Boeing 747)

Group VI: 214 feet up to but not including 262 feet wingspan or tail height from 66 up to but not including 80 feet. (e.g. Airbus A380)

Table: Airplane Design Groups (ADG)

Group #	Tail Height (ft.)	Wingspan (ft.)
I	<20	<49
II	20 ≤ 30	49 ≤ 79
III	30 ≤ 45	79 ≤ 118
IV	45 ≤ 60	118 ≤ 171
V	60 ≤ 66	171 ≤ 214
VI	66 ≤ 80	214 ≤ 262

Airport. An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

Cargo Service Airport. An airport served by aircraft providing air transportation of property only, including mail, with an annual aggregate landed weight of at least 100 million pounds.

Certificated Airport. An airport that has been issued an Airport Operating Certificate by the FAA under the authority of FAR Part 139, Certification and Operation.

Commercial Service Airport. A public airport providing scheduled passenger service that enplanes at least 2,500 annual passengers.

General Aviation Airport. An airport that provides air service to only general aviation.

Hub Airport. An airport that an airline uses as a transfer point to get passengers to their intended destination. It is part of a hub and spoke model, where travelers moving between airports not served by direct flights change planes en route to their destinations.

Large Hub Airport. An airport that handles over 1% of the country's annual enplanements.

Medium Hub Airport. An airport that handles 0.25% ≥ 1% of the country's annual enplanements.

Small Hub Airport. An airport that handles 0.05% ≥ 0.25% of the country’s annual enplanements.

Non-Hub Airport. An airport that handles over 10,000 enplanements, but less than 0.05% of the country’s annual enplanements.

Incursions. See *Runway Incursion*.

International Airport. Relating to international flight, it means:

- An airport of entry which has been designated by the Secretary of Treasury or Commissioner of Customs as an international airport for customs service.
- A landing rights airport at which specific permission to land must be obtained from customs authorities in advance of contemplated use.
- Airports designated under the Convention on ICAO as an airport for use by international commercial air transport and/or international general aviation.

Primary Airport. A commercial service airport that enplanes at least 10,000 annual passengers.

Reliever Airport. General aviation airports in a major metropolitan area that provides pilots with attractive alternatives to using congested hub airports.

Uncontrolled Airport. An airport without an air traffic control tower at which the control of VFR traffic is not exercised. Pilots “see and avoid” other traffic without the aid of air traffic control.

Airport Authority. A quasi-government public organization responsible for setting the policies governing the management and operation of an airport or system of airports under its jurisdiction.

Airport Capital Improvement Plan. The planning program used by the FAA to identify, prioritize, and distribute funds for airport development and the needs of National Airspace System (NAS) to meet specified national goals and objectives.

Airport Elevation. The highest point of an airport’s usable runway(s) expressed in feet above mean sea level (MSL).

Airport Facility Directory. A publication with information on all airports, seaplane bases, and heliports open to the public. This publication is issued in seven volumes according to geographical area, and includes communications data, navigational facilities, and certain special notices and procedures.

Airport Improvement Program (AIP). A program authorized by the Airport and Airway Improvement Act of 1982 that provides funding for the airport planning and development.

Airport Influence Area. The area defined by overlaying the FAR Part 77 Imaginary Surfaces, Aircraft Accident Safety Zone data, and Noise Contour data over the top of an existing land use map, critical areas map or other base map.

Airport Layout Plan (ALP). A scaled drawing of the airport showing the layout of existing and proposed facilities necessary for current and future operation and development of the airport.

Airport Layout Plan Drawing Set. A set of planning drawings that depicts existing airport facilities and proposed development as determined from the planners’ review of the aviation activity forecasts, facility requirements, and alternative analysis. Minimum components of the set are:

- Cover Sheet
- Airport Layout Plan (ALP)
- Data Sheet
- Facilities Layout Plan
- Terminal Area Plan(s)
- Airspace Drawing
- Inner Approach Surface Drawing(s)
- Departure Surface Drawing(s)
- On-Airport Land Use Drawing
- Off-Airport Land Use Drawing
- Airport Property (also known as the Exhibit A)
- Utility Drawing(s)

Airport Lighting. Various lighting aids that may be installed on an airport. Types of airport lighting include:

ALS. See *Approach Light System*.

Boundary Lights. Lights defining the perimeter of an airport or landing area.

Runway Centerline Lighting. Flush centerline lights spaced at 50-foot intervals beginning 75 feet from the landing threshold and extending to within 75 feet of the opposite end of the runway. Only used on Category II/III ILS Runways.

Runway Edge Lights. Lights used to outline the edges of the runways during periods of darkness or restricted visibility conditions. They are usually uniformly spaced at intervals of approximately 200 feet, and intensity may be controlled or preset. These light systems are classified according to the intensity they are capable of producing:

- **High Intensity Runway Lights (HIRLs).**
- **Medium Intensity Runway Lights (MIRLs).**
- **Low Intensity Runway Lights (LIRLs).**

Runway End Identifier Lights (REIL). Provides rapid and positive identification of the approach end of particular runway. The system consists of a pair of synchronized flashing lights, one on each side of the runway threshold.

Threshold Lights. Fixed lights arranged symmetrically left and right of the runway centerline, identifying the runway threshold. Lights are green for arriving aircraft and red for departing aircraft.

Touchdown Zone Lighting. Two rows of transverse light bars located symmetrically about the runway centerline normally at 100 foot intervals.

Only used on Category II/III ILS Runways.

Airport Markings. Markings used on runway and taxiway surfaces to identify a specific runway, a runway threshold, a centerline, a hold line, etc. A runway should be marked in accordance with its present usage such as: 1) Visual, 2) Nonprecision instrument, 3) Precision Instrument.

Airport Master Plan. A comprehensive study of an airport that focuses on the short-, medium-, and long-term development plan to meet future aviation demand of the airport.

Airport Obstruction Chart. A scaled drawing depicting the FAR Part 77 imaginary airspace surfaces, a representation of objects that penetrate these surfaces, runway, taxiway, and ramp areas, navigational aids, buildings, roads, and other detail in the vicinity of the airport.

Airport Operations Area (AOA). An area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. An AOA includes such paved areas or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiways, or apron.

Airport Operator. The operator (private or public) or sponsor of a public-use airport.

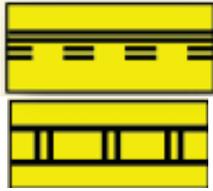
Airport Reference Code (ARC). A coding system used to relate the airport design criteria to the operational and physical characteristics of the airplanes intended to use the airport or the critical aircraft. It is a two character code consisting of the Aircraft Approach Category and the Airplane Design Group.

Airport Reference Point (ARP). The latitude and longitude of the approximate center of the runway(s) at an airport.

Airport Signs. Signs used to identify items and locations on the airport.

Boundary Sign. These signs are used to identify the location of the boundary of the RSA/ROFZ

or ILS critical areas for a pilot, or an existing the runway. These signs have a black inscription on a yellow background.



Destination Sign. These signs indicate the general direction to a remote location. They have black inscriptions on a yellow background and ALWAYS contain an arrow.



Direction Sign. These signs indicate directions of taxiways leading out of an intersection. They may also be used to indicate a taxiway exit from a runway. These signs have black inscriptions on a yellow background and ALWAYS contain arrows.



Information Sign. These signs are installed on the airside of an airport and are considered to be signs other than mandatory signs. They have black inscriptions on a yellow background.

Location Sign. These signs identify the taxiway or runway upon which the aircraft is located. The sign has a yellow inscription on a black background with a yellow border and does NOT use arrows.



Mandatory Instruction Sign. They denote taxiway/runway intersections, runway/runway

intersections, ILS critical areas, OFZ boundaries, runway approach areas, CAT II/II operations areas, military landing zones, and no entry areas. These signs have white inscriptions with a black outline on a red background.



Roadway Sign. These signs are located on the airfield and are solely intended for vehicle operators. They should conform to the categorical color codes established by the Manual on Uniform Traffic Control Devices (MUTCD).

Runway Distance Remaining Signs. These signs are used to provide distance remaining information to pilots during takeoff and landing operations. These signs have a white numeral inscription on a black background.



Airport Sponsor. The entity that is legally responsible for the management and operation of an airport including the fulfillment of the requirements of laws and regulations related thereto.

Airport Surveillance Radar (ASR). A radar system used at airports to detect and display the position of aircraft in the terminal area.

Air Route Traffic Control Centers (ATRCC). A facility responsible for en route control of aircraft operating under IFR in a particular volume of airspace (within its area of jurisdiction) at high altitudes between airport approaches and departures. Approximately 26 such centers cover the United States.

Airside. The portion of an airport that contains the facilities necessary for the operations of aircraft.

Air Taxi. An aircraft operating under an air taxi operating certificate for the purpose of carrying passengers, mail, cargo for revenue in accordance with FAR 121 or FAR Part 135.

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

Air Traffic Control (ATC). A service provided by ground-based controllers who direct aircraft on the ground and in the air. The primary purpose of ATC systems is to *separate* aircraft to prevent collisions, to organize and expedite the flow of traffic, and to provide information and other support for pilots when able.

Air Traffic Control Tower (ATCT). A facility in the terminal air traffic control system located at an airport which consists of a tower cab structure and an associated instrument flight rules rooms, if radar equipped, that uses ground-to-air and air-to-ground communications and radar, visual, signaling, and other devices to provide for the safe and expeditious movement of terminal area air traffic in the airspace and airports within its jurisdiction.

Annual Service Volume (ASV). The number of annual operations that can reasonably be expected to occur at the airport based on a given level of delay.

Anti-Icing. Following aircraft deicing, anti-icing chemicals can applied to protect against the accumulation of ice or snow for a limited period of time, known as the holdover time.

Approach (or Departure) Airspace. The airspace, within five statute miles of an airport, through which aircraft more during landing and takeoff.

Approach Surface. See *Imaginary Surfaces.*

Approach Light System (ALS). An airport lighting facility aids in runway identification during the transition from instrument flight to visual flight for landing. Typical approach lighting systems used at airports include:

Approach Light System with Sequenced Flashing (ALFS).

Lead-in-light System (LDIN).

Consists of one or more series of flashing lights installed at or near ground level that provides positive visual guidance along an approach path, either curving or straight, where special problems exist with hazardous terrain, obstructions, or noise abatement procedures.

Medium-Intensity Approach Light System with Runway Alignment Indicator (MALSR).

A lighting system installed on the approach end of a runway and consists of a series of lightbars, strobe lights, or a combination that extends outward from the runway end. It usually serves a runway that has an instrument approach procedure associated with it and allows the pilot to visually identify and align self with the runway environment once the pilot has arrived at a prescribed point on the approach.

Omnidirectional Approach Lighting System (ODALS).

Consist of seven omnidirectional flashing lights located in the approach area of a non-precision runway. Five lights are located on the runway centerline extended with the first light located 300 feet from the threshold and extending at equal intervals up to 1,500 feet from the threshold. The other two lights are located on each side of the runway, with a lateral distance of 40 feet from the runway edge, or 75v feet from the runway edge when installed on a runway equipped with VASI.

Runway Alignment Indicator Lights (RAILS).

Sequenced Flashing Lights which are installed only in combination with other lighting systems.

Apron. A specific portion of the airfield used for passenger, cargo or freight loading and unloading, aircraft parking, and the refueling, maintenance and servicing of aircraft. Also referred to as ramp or tarmac.

Approach (or Departure) Airspace. The airspace, within five statute miles of an airport, through which aircraft more during landing and takeoff.

Approach Surface. *See Imaginary Surfaces.*

Arrival Time. The time an aircraft touches down on arrival.

Automated Flight Service Station (AFSS). An automated air traffic facility that provides information and services to aircraft pilots before, during, and after flights, but it is not responsible for giving instructions or clearances or providing separation.

Automated Surface Observation System (ASOS). Similar data reporting as an AWOS, but usually owned and maintained by the National Weather Service.

Automated Weather Observation System (AWOS). An automated sensor suite which is voice synthesized to provide a weather report that can be transmitted via VHF radio, NDB, or VOR ensuring that pilots on approach have up-to-date airport weather for safe and efficient aviation operations. Most AWOS observe and record temperature and dew point in degrees Celsius, wind speed and direction in knots, visibility, cloud coverage and ceiling up to 12,000 feet, freezing rain, thunderstorm (lightning), and altimeter setting.

Avigation Easement. A contractual right or a property interest in land over which a right of unobstructed flight in the airspace can occur.

Balloon. *See Aircraft.*

Baggage Claim. An area where passengers obtain luggage that was previously checked at an airline ticket counter at the departing airport.

Based Aircraft. The general aviation aircraft that use a specific airport as a home base.

Base Leg. *See Traffic Pattern.*

Benefit-Cost Analysis (BCA). An analysis of the cost, benefit, and the uncertainty associated with a project or action. A formal BCA is required for capacity projects of \$5 million or more AIP discretionary funds.

Birds Balls. High-density plastic floating balls that can be used to cover ponds and prevent birds from using the sites.

Blast Fence. A barrier used to divert or dissipate jet blast or propeller wash.

Boundary Lights. *See Airport Lighting.*

Boundary Sign. *See Airport Signs.*

Building Restriction Line (BRL). A line that identifies suitable building area locations on airports to limit building proximity to aircraft movement areas. Typically base on the FAR Part 77 Airport Imaginary Surfaces.

Capacity (Throughput Capacity). A measure of the maximum number of aircraft operations or their airport components which can be accommodated on the airport.

Capital Improvement Plan (CIP). The planning program used by the FAA to indentify, prioritize, and distribute AIP funds for airport development and the needs of the NAS to meet specified national goals and objectives.

Cargo Service Airport. *See Airport.*

Ceiling. The height above the earth's surface of the lowest layer of clouds or obscuring phenomena that is reported as broken, overcast or obscured.

Certificated Airport. *See Airport.*

Citizen's Advisory Committee (CAC). A group of individuals that weight recommendations against community goals, values, and needs, typically during a Master Plan.

Clear Zone. Former term for Runway Protection Zone.

Clearway (CWY). A defined rectangular area beyond the end of the runway cleared or suitable for use in lieu of runway to satisfy take off distance requirements.

Commercial Service Airport. *See Airport.*

Common Traffic Advisory Frequency (CTAF). The VHF radio frequency used for air-to-air communication at uncontrolled airports or where no control tower is currently active. Pilots use the common frequency to coordinate their arrivals and departures safely, give position reports, and acknowledge other aircraft in the airfield traffic pattern.

Compass Rose. A circle, graduated in degrees, printed on some charts or marked on the ground at an airport. It is used as a reference to either true or magnetic direction. When marked on the ground it is used to calibrate an aircraft's compass.

Conical Surface. *See Imaginary Surfaces.*

Consultant. A firm, individual, partnership, corporation, or joint venture that performs architectural, engineering or planning service as defined in AC150/5100-14D, employed to undertake work funded under an FAA airport grant assistance program.

Controlled Airspace. Airspace of defined dimensions within which air traffic control service is provided to IFR flight and to VFR flights in accordance with the airspace classification. Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E Airspace.

Critical (Design) Aircraft. The most demanding aircraft with at least 500 annual operations that operates, or is expected to operate, at the airport.

Crosswind. A wind that is not parallel to a runway centerline or to the intended flight path of an aircraft.

Crosswind Component. The component of wind that is at a right angle to the runway centerline or the intended flight path of an aircraft.

Crosswind Leg. *See Traffic Pattern.*

Decision Height (DH). This is associated with precision approaches and the aircraft is continually descending on final approach. When the aircraft reaches the DH, the pilot must make a decision to land or execute the missed approach procedure.

Deicing. The removal, though application of a max of heated water and propylene or ethylene glycol, of frost, ice, slush, or snow from the aircraft in order to provide clean surfaces.

Deicing Pad. A facility where an aircraft received deicing or anti-icing.

Delay. The difference between constrained and unconstrained operating time.

Demand. The number of aircraft operations, passengers, or other factors that are required in a specific period of time.

Department of Transportation (DOT). The United States federal department that institutes and coordinates national transportation programs; created in 1966. The FAA is an organization within the DOT.

Departure Airspace. *See Approach Airspace.*

Destination Sign. *See Airport Signs.*

Detention Ponds. Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.

Direction Sign. *See Airport Signs.*

Discretionary Grant Funds. Annual Federal grant funds that may be appropriate to an airport based upon designation by the Secretary of Transportation or Congress to meet a specified national priority such as enhancing capacity, safety, and security or mitigating noise.

Displaced Threshold. See *Threshold*.

Distance Measuring Equipment (DME). See *Navigation Aid*.

Downwind Leg. See *Traffic Pattern*.

Emergency Locator Transmitter (ELT). A radio transmitter attached to the aircraft structure that aids in locating downed aircraft by radiating a audio tone on 121.5 MHz or 243 MHz.

Enplanement. The boarding of a passenger, cargo, freight or mail on an aircraft at an airport.

Entitlement Grant Funds. Annual federal funds for which all airports in the NPIAS are eligible for.

Environmental Assessment (EA). An environmental analysis performed pursuant to the Nation Environmental Policy Act to determine whether an action would significantly affect the environment and thus require a more detailed environmental impact statement.

Environmental Impact Statement (EIS). A document required of federal agencies by the National Environmental Policy Act (NEPA) for major projects or legislative proposals affecting the environment. It is a tool for decision-making describing the positive. If no significant impact is found a Finding of No Significant Impact (FONSI) is issued.

Federal Aviation Administration (FAA). An agency of the United States Department of Transportation with authority to regulate and oversee all aspects of civil aviation in the United States.

Federal Aviation Regulations (FAR). The general and permanent rules established by the executive departments and agencies of the Federal government for aviation which are published in the Federal Register. These are the aviation subset of the U.S. Code of Federal Regulations (CFR).

Federal Grant Agreement. A Federal agreement that represents an agreement made between the

FAA (on the behalf of the United States) and an airport sponsor for the grant of Federal Funding.

Federal Grant Assurance. A provision within a Federal grant agreement to which the recipient of Federal airport development assistance has agreed to comply in consideration of the assistance provided.

Finding of No Significant Impact (FONSI). A public document prepared by a Federal agency that presents the rationale why a proposed action will not have a significant effect on the environment and for which an environmental impact statement will not be prepared.

Fixed Base Operator (FBO). A business enterprise located on the airport property that provides services to pilots including aircraft rental, training, fueling, maintenance, parking, and the sale of pilot supplies.

Flight Service Station (FSS). An air traffic facility that provides information and services to aircraft pilots before, during, and after flights, but unlike ATC, is not responsible for giving instructions, clearances, or providing separation.

Flight Standards District Office (FSDO). An FAA field office serving an assigned geographical area and staffed with Flight Standard personnel who serve the aviation industry and the general public on matters relating to the certification and operation of air carrier and general aviation aircraft. Activities include general surveillance of operation safety, certification of airmen and aircraft, accident prevention, investigation, enforcement, etc.

Foreign Object Debris (FOD). Any object found on an airport that does not belong in or near airplanes, and as a result can injure personnel and damage aircraft.

Form 7460-1, Notice of Proposed Construction or Alternation. Federal law requires filing a Notice of Proposed Construction or Alteration (Form 7460) for all structures over 200 feet AGL or lower if closer than 20,000 feet to a public use airport with a runway over 3,200 feet in length.

Form 7480-1, Notice of Landing Area

Proposal. Submitted to the FAA Airport Regional Division Office or ADO as formal written notification for project involving the construction of a new airport; the construction, realigning, altering, activating, or abandoning of a runway, landing strip, or associated taxiway; or the deactivation or abandoning of an entire airport.

Fuel Flowage Fee. A tax assessed on the user, which is paid at the pump. Fuel flowage fee revenues are sent to the airport governing body, usually the board or authority and are then used for airport improvements or other expenses.

Gap Analysis. See *Safety Management System*.

Gate. An aircraft parking position used by a single aircraft loading or unloading passengers, mail, or cargo, etc.

General Aviation (GA). The segment of aviation that encompasses all aspects of civil aviation except certified air carriers and other commercial operators, such as airfreight carriers.

General Aviation Airport. See *Airport*.

Geographic Information System (GIS). A technology that manages, analyzes, and disseminates geographic data.

Glider. See *Aircraft*.

Glideslope. See *Instrument Landing System*.

Global Positioning System (GPS). A satellite based navigational system that provides signals in the cockpit of aircraft defining aircraft position in terms of latitude, longitude, and altitude.

GPS Runway. See *Runway*.

Grant Agreement. See *Federal Grant Agreement*.

Ground Access. The transportation system on and around the airport that provides access to and from the airport by ground transportation vehicle for passengers, employees, cargo, freight, and airport services.

Hazard. See *Safety Management System*.

Hazardous Wildlife. 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.

Heavy Aircraft. See *Aircraft*.

Helicopter. See *Aircraft*.

Helipad. A small, designated area, usually with prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, movement area used for takeoff, landing, or parking of helicopters.

Heliport. An area of land, water, or structure used or intended to be used for the landing and takeoff of helicopters.

High Intensity Runway Lighting (HIRL). See *Airport Lighting*.

Holdover Time. The estimated time the application of anti-icing fluid will prevent the formation of frozen contamination on the protected surfaces of an aircraft. With a one-step deicing/anti-icing operation, the holdover beings at the start of the operations; with a two-step operations, the holdover beings at the start of the final anti-icing application.

Horizontal Surface. See *Imaginary Surfaces*.

Hub Airport. See *Airport*.

Imaginary Surfaces. Are surfaces defined in FAR Part 77, and are in relation to the airport and each runway. The size of these imaginary surfaces is based on the category of each runway for current and future airport operations. Any objects which penetrate these surfaces are considered an obstruction and affects navigable airspace.

Approach Surface. An imaginary obstruction limiting surface defined in FAR Part 77 which is longitudinally centered on an extended runway

centerline and extends outward and upward from the primary surface at each end of a runway at a designated slope and distance upon the type of available or planned approach by aircraft to a runway.

Conical Surface. An imaginary obstruction-limiting surface defined in FAR Part 77 that extends from the edge of the horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

Horizontal Surface. An imaginary obstruction-limiting surface defined in FAR Part 77 that is specified as a portion of a horizontal plane surrounding a runway located 150 feet above the established airport elevation. The specific horizontal dimension of this surface is a function of the types of approaches existing or planned for the runway.

Primary Surface. An imaginary obstruction-limiting surface defined in FAR Part 77 that is specified as a rectangular surface longitudinally centered about a runway. The specific dimensions of this surface are function of types of approaches existing or planned for the runway.

Transitional Surface. An imaginary obstruction-limiting surface defined in FAR Part 77 that extends outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface.

Incursion. The unauthorized entry by an aircraft, vehicle, or obstacle into the defined protected area surrounding an active runway, taxiway, or apron.

Information Sign. See *Airport Signs*.

Inner Marker (IM). See *Instrument Landing System*.

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). Procedures for the conduct of flight in weather conditions below Visual Flight Rules (VFR) weather minimums. The term IFR is often also used to define weather conditions and type of flight plan under which an aircraft is operating. IFR is defined as the weather condition that occurs whenever the cloud ceiling is at least 500 feet above ground level, but less than 1,000 feet and/or visibility is at least one statute mile, but less than 3 statute miles.

Instrument Landing System (ILS). A precise ground based navigation system for aircraft that provides precision guidance to an aircraft approaching a runway. It uses a combination of radio signals and, in many cases, high-intensity lighting arrays to enable a safe landing during instrument meteorological conditions. Normally consists of the following components and visual aids:

Localizer. The component of an ILS which provides horizontal guidance to the runway.

Glideslope. An independent ILS subsystem that provides vertical guidance to aircraft approaching a runway. It is an antenna array that is usually located on one side of the runway touchdown zone.

Outer Marker (OM). A marker beacon at or near the glideslope intercept altitude of an ILS approach and it keyed to transmit two dashes per second.

Middle Marker (MM). A marker beacon that defines a point along the glideslope of an ILS normally located at or near the point of DH (CAT I). It is keyed to transmit alternate dots and dashes.

Inner Marker (IM). A marker beacon use with an ILS (CAT II & CAT III) precision approach located between the middle marker and the end of the ILS runway, transmitting a radiation pattern keyed at six dots per second, and

indicating that the pilot, both aurally and visually, is at the DH

Approach Lights. See *Approach Lighting Systems*.

ILS Categories:

Precision Approach Category I (CAT I). An instrument approach procedure which provides for an approach to a DH of not less than 200 feet and visibility of not less than ½ mile or RVR 2,400 (RVR 1,800 with operative touchdown zone and runway centerline lights).

Precision Approach Category II (CAT II). An instrument approach procedure which provides for an approach to a minima less than CAT I to as low as a DH of not less than 200 feet and visibility of not less than 100 feet and RVR of not less than RVR 1,200.

Precision Approach Category III (CAT III) An instrument approach procedure which provides for an approach to minima less than CAT II.

Instrument Meteorological Conditions (IMC). Meteorological conditions expressed in terms of specific visibility and ceiling conditions that are less than the minimums specified for visual meteorological conditions. IMC are defined as period when cloud ceiling are less than 1,000 feet above ground and/or visibility less than three miles

Instrument Runway. See *Runway*.

International Civil Aviation Organization (ICAO). An agency of the United Nations which codifies the principles and techniques of the international air navigation, and fosters the planning and development of international air transport to ensure safe and orderly growth. The ICAO Council adopts standards and recommended practices concerning air navigation, prevention of unlawful interference,

and facilitation of border-crossing procedure for international civil aviation.

Itinerant Operations. See *Operation*.

Knot. A unit of speed equal to one nautical mile per hour, or 1.15 statute mile per hour.

Land and Hold Short Operations (LAHSO). To increase airport capacity, efficiency, and safety, LAHSO clearances usually instruct an aircraft to land, and then hold short of an intersecting runway, taxiway, or predetermined point.

Large Hub Airport. See *Airport*.

Landside. The portion of an airport that provides the facilities necessary for the processing of passengers, cargo, freight, and ground transportation vehicles.

Large Airplane. See *Aircraft*.

Lead-In-Light System (LDIN). See *Approach Light System*.

Localizer. See *Instrument Landing System*.

Local Operations. See *Operation*.

Location Sign. See *Airport Signs*.

Low Intensity Airport Lighting. See *Airport Lighting*.

Magnetic (Compass) Heading. The heading relative to the magnetic poles of the Earth. Is the heading indicated by a magnetic compass.

Mandatory Instruction Sign. See *Airport Signs*.

Maximum Certified Takeoff Weight (MTOW). The Maximum certificated weight for the airplane at takeoff, i.e. the airplane's weight at the start of the takeoff run.

Mean Sea Level (MSL). The average or mean height of the sea, with reference to a suitable reference surface.

Medium Hub Airport. See *Airport*.

Medium Intensity Approach Light System with Runway Alignment Indicator (MASLR).

See Approach Light System.

Medium Intensity Runway Lights (MIRL).

See Airport Lighting.

Middle Marker (MM). See Instrument Landing System.

Military Operations. See Operation.

Minimum Descent Altitude. This is associated with non-precision approaches and is the lowest altitude an aircraft can fly until the pilot sees the airport environment. If the pilot has not found the airport environment by the Missed Approach Point (MAP) a missed approach is initiated.

Missed Approach Point (MAP). The point prescribed in an instrument approach at which a missed approach procedure shall be executed if visual reference of the runway environment is not in sight or the pilot decides it is unsafe to continue. The MAP is similar in principle to the Decision Height.

Movement Area. The runway, taxiways, and other area of an airport an airport/heliport which are utilized for taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports with a tower, specific approval for entry onto the movement area must be obtained from ATC.

National Airspace System (NAS). The network of air traffic control facilities, air traffic control areas, and navigational facilities throughout the U.S.

National Environmental Policy Act (NEPA). Federal legislation that established environmental policy for the nation. It requires an interdisciplinary framework for federal agencies to evaluate environmental impacts and contains action-forcing procedures to ensure that federal agency decision makers take environmental factors into account.

National Plan of Integrated Airport Systems (NPIAS). The national airport system plan developed by the Secretary of Transportation on

a biannual basis for the development of public use airports to meet national air transportation needs.

National Transportation Safety Board (NTSB). A federal investigatory board whose mandate is to ensure safe public transportation. As part of the DOT, the NTSB investigates accidents, conducts studies, and makes recommendations to federal agencies and the transportation industry.

Navigation Aid (NAVAID). Any visual electronic device, airborne or on the surface, which provides point-to-point guidance information or position data to aircraft in flight.

Distance Measuring Equipment (DME). Equipment (airborne and ground) used to measure, in nautical miles, the slant range distance of an aircraft from the DME NAVAID.

Non-Directional Beacon (NDB). A radio transmitter at a known location used as a NAVIAD. The signal transmitted does not include inherent directional information, in contrast with other NAVIADS such as VOR and TACAN.

Precision Approach Path Indicator (PAPI). A path indicator that uses a single row of lights arranged to provide precision descent guidance information during approach to a runway.

Rotating Beacon. A visual NAVAID used to assist pilots in finding an airport, particularly those flying in IMC or VFR at night. The beacon provides information about the type of airport through the use of a particular set of color filter:

- Green flashed alternated with two quick white flashes: Lighted military land airport.
- Alternating White and green flashes: Lighted civilian land airport.
- Alternating white and yellow flashes: lighted water airport
- Alternating yellow, green, and white: Lighted heliport.

Tactical Air Navigation (TACAN). An ultra-high frequency electronic rho-theta NAVAID which provides suitably equipped aircraft a continuous indication of bearing and distance to the TACAN station.

Visual Approach Slope Indicator (VASI). A system of lights arranged to provide vertical visual approach slope guidance to aircraft during approach to landing by radiating a directional pattern of high intensity red and white focused light beam.

VOR (Very High Frequency Omni-directional Radio-range). A ground-based electronic NAVAID transmitting very high frequency navigation signals, 360 azimuth, oriented from magnetic north, used as a basis for navigation in NAS.

VORTAC. A NAVAID providing VOR azimuth, TACAN azimuth, and TACAN DME at one site.

Night. The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

Noise Abatement Procedures. Procedures developed by the FAA and community to reduce the level of noise generated by aircraft departing over populated areas.

Noise Contour. A continuous line on a map of the airport vicinity connecting all points of the same noise level. These contours represent noise levels generated from aircraft operations, takeoff and landing of aircraft. They are generated based on mythology developed by the FAA and the data provides information that can be used to identify varying degrees of noise impacts on the surrounding area.

Non-Directional Beacon (NDB). *See Navigation Aid.*

Non-Hub Airport. *See Airport.*

Non-Movement Area. Taxilanes and apron areas not in the movement area and therefore no under the control of traffic control.

Nonprecision Approach Procedure. A standard instrument approach procedure in which no electronic glideslope is provided.

Nonprecision Runway. *See Runway.*

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

Object. Includes, but is not limited to above ground structures, NAVAIDs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.

Object Free Area (OFA). An area on the ground centered on a runway (ROFA), taxiway (TOFA), or taxilane centerline provided to enhance the safety of aircraft operations by having the area free 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 which may be expected at a fixed location within prescribed area with reference to the vertical clearance that must be provided during flight operations.

Obstacle Free Zone (OFZ). The OFZ is the airspace below 150 feet above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches.

Obstruction. An object of greater height than any of the surfaces presented in FAR Part 77. (Obstructions to air navigation are presumed to

be hazards to air navigation until an FAA study has determined otherwise.)

Omnidirectional Approach Lighting System (ODALS). *See Approach Light System.*

Operation. The landing, takeoff, or touch-and-go procedure by an aircraft on a runway at an airport. Operations can be categorized into the following categories:

Itinerant Operations. Operations by aircraft that leaves the local airspace.

Local Operations. Aircraft operations performed by aircraft that are based at the airport and that operate in the local traffic pattern or within sight of the airport, that are known to be departing for or arriving from flights in local practice areas within a prescribed distance from the airport, or that execute simulated instrument approaches at the airport.

Military Operations. Aircraft operations performed in military aircraft. May be itinerant or local operations.

Transient Operations. Operations by aircraft that are not based at a specified airport.

Outer Marker (OM). *See Instrument Landing System.*

Parallel Runways. *See Runway.*

Parallel Taxiways. *See Taxiway.*

Passenger Facility Charge (PFC). The collection of PFC fees for every enplaned passenger at commercial airports controlled by public agencies to be used to fund FAA-approved projects that enhance safety, security, or Capacity; reduce noise; or increase air carrier competition.

Peak Hour (PH). An estimate of the busiest hour in a day. This is also known as the design hour.

Performance-Based Navigation (PBN). It specifies that aircraft RNP and RNAV systems performance requirements be defined in terms of accuracy, integrity, availability, continuity and functionality required for the proposed operations in the context of a particular airspace, when supported by the appropriate navigation infrastructure.

Area Navigation (RNAV). A method of navigation that permits aircraft operations on any desired flight path.

Required Navigation Performance (RNP). A type of Performance-Based Navigation (PBN) that allows an aircraft to fly a specific path between two, 3 dimensionally defined points in space.

Planning Activity Level (PAL). Selected activity levels that may trigger the need for additional facilities or improvements.

Precision Approach Categories I, II, III (CAT I, CAT II, CAT III). *See Instrument Landing System.*

Precision Approach Procedure. A standard precision approach procedure in which an electronic glideslope is provided, such as ILS or PAR.

Primary Airport. *See Airport.*

Primary Surface. *See Imaginary Surfaces.*

Poor Visibility and Ceiling (PVC). Is a condition that exists whenever the cloud ceiling is less than 500 feet and/or the visibility is less than one statute mile.

Precision Approach Path Indicator (PAPI). *See Navigational Aid*

Ramp. Synonymous with Apron. *See Apron.*

Record of Decision (ROD). A public document that reflects the FAA's final decision of an EIS, rationale behind that decision, and commitments to enforce and monitor mitigation.

Regional Jet. *See Aircraft.*

Regression Analysis. A statistical technique that seeks to identify and quantify the relationships between factors associated with a forecast.

Reliever Airport. See *Airport*.

Retention Ponds. Storm water management ponds that hold water for several months.

Risk Assessment. See *Safety Management System*.

RNAV. See *Performance Based Navigation*.

RNP. See *Performance Based Navigation*.

Roadway Sign. See *Airport Signs*.

Rocket. See *Aircraft*.

Rotating Beacon. See *Navigation Aid*.

Rotorcraft. See *Aircraft*.

Runway (RW). Defined as rectangular surface on an airport prepared or suitable for the landing and takeoff of airplanes. Runways can be classified as the following:

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

GPS Runway. A runway having a precision or nonprecision approach procedure using GPS navigational guidance with or without vertical guidance.

Nonprecision Instrument Runway. A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance for which a straight-in or side-step nonprecision approach procedure has been approved.

Nonprecision Runway. A runway with only horizontal guidance available.

Parallel Runways. Two or more runways at the same airport whose centerlines are parallel. In addition to runway number, parallel runways are designated as L (left) and R (right) or, if three parallel runways exist, L (left), C (center), and R (right).

Precision Instrument Runway. A runway having an existing instrument approach procedure utilizing air navigation facilities with both horizontal and vertical guidance for which a precision approach procedure has been approved.

Utility Runway. A runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

Visual Runway. A runway without an existing or planned straight-in instrument approach procedure and no instrument approach procedure/equipment.

Runway Alignment Indicator Lights (RAILS). See *Approach Light System*.

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

Runway Centerline Lighting. See *Airport Lighting*.

Runway Distance Remaining Sign. See *Airport Signs*.

Runway Edge Lights. See *Airport Lighting*.

Runway End Identifier Lights (REIL). See *Airport Lighting*.

Runway Environment. The physical runway and the areas surrounding the runway out to the hold position marking.

Runway Gradient. The ratio of the change in elevation divided by the length of the runway expressed as a percentage.

Runway Heading. The magnetic direction that corresponds with the runway centerline extended.

Runway Incursion. Any occurrence at an airport involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.

Runway Lights. See *Airport Lighting*.

Runway Protection Zone (RPZ). A trapezoidal area off the runway end intended to enhance the protection of people and property on the ground.

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.

Runway Visual Range (RVR). The distance over which a pilot of an aircraft on the centerline of the runway can see the runway surface markings delineating the runway or identifying its centerline. RVR is normally expressed in feet.

Safety Assessment. See *Safety Management System*.

Safety Assurance. See *Safety Management System*.

Safety Management System. The formal top-down business-like approach to managing safety risk. It includes systematic procedures, practices, and policies for the management of safety (including safety risk management, safety policy, safety assurance, and safety promotion).

Gap Analysis. Identification of existing safety components, compare to SMS program requirements. Gap analysis provides an airport operator an initial SMS development plan and Safety roadmap to compliance.

Hazard. Any existing or potential condition that can lead to injury, illness, or death to people; damage to or loss of a system, equipment, or property, or damage to the environment. A hazard is

a condition that is a prerequisite to an accident or incident.

Risk Assessment. Assessment of the system or component to compare the achieved risk level with the tolerable risk level.

Safety Assessment. A systematic, comprehensive evaluation of an implemented system.

Safety Assurance. SMS process management functions that systematically provides confidence that organizational products/services meet or exceed safety requirements.

Safety Policy. Defines the fundamental approach to managing safety that is to be adopted within an organization. Safety policy further defines the organization's commitment to safety and overall safety vision.

Safety Promotion. A combination of safety culture, training, and data sharing activities that supports the implementation and operation of an SMS in an organization.

Safety Risk Control. Anything that mitigates the safety risk of a hazard. Safety risk controls necessary to mitigate an unacceptable risk should be mandatory, measureable, and monitored for effectiveness.

Safety Risk Management (SRM). A formal process within the SMS composed of describing the system, identifying the hazards, assessing the risk, analyzing the risk, and controlling the risk. The SRM process is embedded in the operation system: is not a separate/distinct process.

Severity. The consequence or impact of a hazard in terms of degree of loss or harm.

Safety Policy. See *Safety Management System*.

Safety Promotion. See *Safety Management System*.

Safety Risk. See *Safety Management System*.

Safety Risk Control. See *Safety Management System*.

Safety Risk Management (SRM). See *Safety Management System*.

Scope. The document that identifies and defines the tasks emphasis, and level of effort associated with a project or study.

Self-Fueling. The fueling of an aircraft by the owner or operator of the aircraft.

Segmented Circle. A circle located on an airport where wind and runway pattern information are located. It performs two function: it aids the pilot in locating the obscure airports, and it provides a centralized location for wind and traffic pattern indicators as may be required on a particular airport.

Separation. The spacing of aircraft to achieve their safe and orderly movement in flight, and while landing and taking off.

Severity. See *Safety Management System*.

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.

Small Airplane. See *Aircraft*.

Small Hub Airport. See *Airport*.

Snow Removal Equipment (SRE). Equipment, such as plow trucks and brooms, to remove snow from the paved surfaces on an airport.

Sponsor. A public agency or private owner of a public-use airport that submits to the Secretary an application for financial assistance for the airport.

Surface Movement Guidance and Control System (SMGCS). Systems providing routing,

guidance, surveillance and control to aircraft and affected vehicles in order to maintain movement rates under all local weather condition within the Aerodrome Visibility Operational Level (AVOL) whilst maintaining the required level of safety.

System of Airport Reporting (SOAR). The FAA Office of Airport integrated database that contains airport planning, development, and financial information.

Tactical Air Navigation (TACAN). See *Navigation Aid*.

Tailwind. Any wind more than 90 degrees to the longitudinal axis of the runway.

Takeoff Distance Available (TODA). The TORA plus the length of any remaining runway or clearway (CWY) beyond the far end of the TORA.

Takeoff Run Available (TORA). The runway length declared available and suitable for the ground run of an airplane taking off.

Taxi. The movement of an airplane under its own power on the surface of an airport.

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

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

Parallel Taxiway. A taxiway whose centerline is parallel to an adjacent runway.

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.

Technical Advisory Committee (TAC). A group of individual that provide input on technical issues.

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

Terminal Area Forecast (TAF). The official forecast of aviation activity, both aircraft and enplanements, at FAA facilities. This includes FAA-towered airports, federally contracted towered airports, non-federal towered airports, and many non-towered airports.

Terminal Instrument Procedures (TERPS). Published flight procedure standards for conducting instrument approaches to runways under instrument meteorological conditions. Information on TERPS is contained in FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

Threshold (TH). The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.

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

Threshold Lighting. See *Airport Lighting*.

Through-the-Fence Operations. Those activities permitted by the airport sponsor through an agreement that permits access to the public landing area by independent entities or operator offering an aeronautical activity or to owners of aircraft based on land adjacent to, but not a part of, the airport property. The obligation to make an airport available for the use and benefit of the public does not impose any requirement for the airport sponsor to permit ground access by aircraft from adjacent property.

Throughput Capacity. See *Capacity*.

Touchdown Zone Lighting. See *Airport Lighting*.

Traffic Pattern. The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The following defines components of a standard traffic pattern:

Base Leg. A flight path at right angles to the landing runway off its approach end. The base leg extends from the

downwind leg to the intersection of the extended runway centerline.

Crosswind Leg. A flight path at right angles to the landing runway off its upwind end.

Downwind Leg. A flight path parallel to the landing runway in the direction opposite to landing. The downwind leg normally extends between the crosswind leg and the base leg.

Upwind Leg. A flight path parallel to the landing runway in the direction of the landing.

Transitional Surface. See *Imaginary Surfaces*.

Transient Operations. See *Operation*.

Transportation Security Administration (TSA). An agency established in 2001 to safeguard United States transportation systems and to insure safe air travel. TSA operates under the Department of Homeland Security.

True Heading. A heading relative to the actual North and South Poles of the Earth, rather than the magnetic poles.

Uncontrolled Airport. See *Airport*.

Uncontrolled Airspace. Airspace where an ATC service is not deemed necessary or cannot be provided for practical reasons. Uncontrolled airspace is a generic term that covers Class F and Class G Airspace.

Universal Integrated Communications (UNICOM). An air-ground communication facility operated by a private agency to provide advisory service at uncontrolled airport. Aircraft call the ground station to make announcements of their intentions. In some cases, the ground station is not staffed. If no one is staffing the ground station, pilots broadcast their location and intentions over the UNICOM or CTAF channel. When the ground station is closed this is done without an acknowledgement.

Upwind Leg. See *Traffic Pattern*.

Utility Runway. *See Runway.*

Visibility. A measure of the horizontal opacity of the atmosphere at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night; and is expressed in terms of the horizontal distance at which a person should be able to see and identify, is measured in statute miles.

Visual Approach. An approach conducted on an IFR flight plan which authorizes the pilot to proceed visually and clear of clouds to the airport. The pilot, at all times, must have either the airport or the preceding aircraft in sight. Reported weather at the airport must be ceiling at or above 1,000 feet and visibility of three miles or greater.

Visual Approach Slope Indicator (VASI). *See Navigational Aid.*

Visual Flight Rules (VFR). Procedures for the conduct of flight in weather conditions above Visual Flight Rules (VFR) weather minimums. The term VFR is often also used to define weather conditions and type of flight plan under which an aircraft is operating. VFR is defined as the weather condition whenever the cloud ceiling is at least 1,000 feet above ground level and visibility is at least three statute miles.

Visual Meteorological Conditions (VMC). Meteorological conditions expressed in terms of

specific visibility and ceiling conditions which are equal to or greater than the threshold values for IMC.

Visual Runway. *See Runway.*

VOR. *See Navigation Aid.*

VORTAC. *See Navigation Aid.*

Wide Area Augmentation System (WAAS). An enhancement of the GPS that includes integrity broadcasts, differential correction, and additional ranging signals for the purpose of providing the accuracy, integrity, availability, and continuity required to support all phases of flight.

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 approach or departure airspace or the airport's AOA. These attractants can include architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquaculture activities, surface mining, or wetlands.

Wildlife Hazard Assessment (WHA).

Wind Direction. Is the opposite direction in which the windsock is pointing, and is specified in terms of magnetic heading.

Windsock (Wind Cone). A conical textile tube designed to indicate wind direction and relative wind speed.