

Aviation professionals and technical people sometimes use acronyms, aviation jargon, or abbreviations. A glossary of terms is provided as a quick reference to aviation jargon.

**Above Ground Level (AGL)** - a height above the ground as opposed to MSL (height above Mean Sea Level).

**Accelerate - Stop Distance** - The distance for a multi-engine aircraft to accelerate to the critical engine failure speed (V1) - at which point it is assumed the engine fails - and then brake to a complete stop. V1 is the speed at which engine failure is assumed to occur, as identified by the aircraft manufacturer. If an engine fails at a speed greater than V1 on a multi-engine aircraft, the pilot has no choice but to continue takeoff, on a minimum length runway. On a longer runway the pilot may still elect to abort a takeoff.

**Airport Capital Improvement Program (ACIP)** - A five year program of funding requests that identifies the improvements desired at the airport, estimated cost of each item, and potential funding source of each item.

**Advisory Circular (AC)** - A series of publications from the Federal Aviation Administration detailing the requirements of various facets of aviation and airport.

**AIP** - see Airport Improvement Program.

**Air Carrier** - Commercial aircraft operating pursuant to a federal certificate of public convenience and necessity.

**Airport Traffic Control Tower (ATCT)** – Also commonly referred to as the Air Traffic Control Tower. A facility that through the use of air/ground communications, visual signaling, and other devices, provides air traffic control services to airborne aircraft in the vicinity of the airport and to aircraft operating on the airport/airfield movement area.

**Aircraft Approach Category** - A grouping of aircraft based on 1.3 times their stall speed in their landing configuration at their maximum certificated landing weight. The categories are as follows:

Category A: Speed of less than 91 knots.

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

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

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

Category E: Speed of more than 166 knots or more.

**Aircraft Operations** - see Operations.

**Aircraft Tie down** - Positions on the ground surface that are available for securing aircraft.

**Airplane Design Group (ADG)** - A grouping of airplanes based on wingspan. The groups are as follows:

Group I: Wingspan up to but not including 49 feet.

Group II: Wingspan 49 feet up to but not including 79 feet.

Group III: Wingspan 79 feet up to but not including 118 feet.

Group IV: Wingspan 118 feet up to but not including 171 feet.

Group V: Wingspan 171 feet up to but not including 214 feet.

Group VI: Wingspan 214 feet up to but not including 262 feet.

**Airport Elevation/Field Elevation** - The highest point of an airport's usable landing area measured in feet above Mean Sea Level (MSL).

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

**Airport Improvement Program (AIP)** - A Federal source of funds available for certain improvement projects at airports.

**Airport Layout Plan (ALP)** - A set of drawings depicting existing and proposed airport facilities and land uses, their locations, and the pertinent clearance and dimensional information required to show conformance with the applicable standards. It

shows the airport location, runway protection zones, runway safety area, approach areas, and other environmental features that may influence airport usage and expansion capabilities. The ALP at a minimum includes airport layout, location map, vicinity map, airport data table, basic data table, and wind information.

**Airport Master Plan** - An assembly of appropriate documents and drawings covering the development of a specific airport from a physical, economic, social, environmental, and political jurisdictional perspective. The airport layout plan is a part of this plan.

**Airport Reference Code (ARC)** - A system used by the FAA to relate airport planning and design criteria to the operational (see aircraft approach category) and physical (see airplane design group) characteristics of the aircraft intended to use the airport.

**ALP** - see Airport Layout Plan.

**Annual Service Volume (ASV)** - The annual number of aircraft operations that a facility can accommodate without delays.

**Apron** - A defined area on an airport intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance.

**ARC** - see Airport Reference Code.

**ASOS** - see Automated Surface Observation System/Automated Weather Observation System/Automated Weather Information.

**ASV** - see Annual Service Volume.

**Automated Surface Observation System (ASOS)/Automated Weather Observation System (AWOS)/Automated Weather Information (AWIS)** - Equipment that takes and broadcasts automated weather readings.

**Avigation Easement** – An easement over private property abutting an airport runway, which limits the height of crops, trees, structures, etc. in the aircraft's takeoff and landing path.

**AWIS** – see Automated Surface Observation System/Automated Weather Observation System/Automated Weather Information.

**AWOS** - see Automated Surface Observation System/Automated Weather Observation System/Automated Weather Information.

**Based Aircraft** - An aircraft normally parked or hangared at an airport while not in use.

**Based Itinerant Operation** - An itinerant operation generated by aircraft based at a particular airport as opposed to a similar operation generated by aircraft based at another airport.

**Capital Improvement Program (CIP)** – see Airport Capital Improvement Program.

**Corporate/Executive Aircraft** - Aircraft owned or leased by a corporation, company or individual, flown by pilots whose primary duties involve piloting

aircraft for use in transporting personnel or cargo in the conduct of company business.

**Critical Aircraft** - That aircraft or combination of aircraft, which dictates the design parameters for a particular airport.

**Day-Night Average Sound Level (DNL)** - The predicted average noise effect on an area around the airport for a typical 24-hour period. A weighting factor equivalent to a penalty of 10 decibels is applied to operations between 10 p.m. and 7 a.m.

**Displaced Threshold** - A runway threshold that is located at a point other than the designated beginning of the runway. The area behind the displaced threshold is available for takeoff run and landing rollout from the opposite direction.

**Distance Measuring Equipment (DME)** - A navigational aid, which gives aircraft in flight slant range distance information from a fixed point on the ground.

**Dual Wheel Gear (DW)** - The configuration of aircraft gear where two wheels are used at each wheel position to support the aircraft load. This designation is used in pavement strength analysis.

**DW** - see Dual Wheel Gear.

**FAA** - see Federal Aviation Administration.

**FBO** - see Fixed Base Operator.

**Federal Aviation Administration (FAA)** – The federal agency responsible for the safety and efficiency of the national airspace and air transportation system.

**Federal Aviation Regulations (FAR)** - Regulations issued by the FAA to regulate air commerce under Code of Federal Regulations Title 14; issued as separate "Parts", e.g., Part 77.

**Fixed Base Operator (FBO)** - FBOs are commercial aviation businesses that provide services such as charter services, flight training, aircraft rental services, fueling, and aircraft maintenance, and specialized services, as needed, such as crop dusting.

**Fleet Mix** - A collective term generally used to describe various proportions of small piston aircraft, large piston aircraft, turboprop aircraft and turbojet aircraft.

**GA** - see General Aviation.

**GAO** - see General Accounting Office.

**General Accounting Office (GAO)** - An office of the federal government that audits or assesses governmental practices and their financial impacts.

**General Aviation (GA)** - All types of aviation, other than that performed by air carriers and the military.

**Glide Slope** - That portion of the instrument landing system that emits a signal to assist pilots in establishing and maintaining an aircraft's descent rate until visual contact confirms runway alignment and location.

**Global Positioning System (GPS)** - A series of satellites that transmit a signal that is used for navigation.

**Hertz (HZ)** - The designated unit for communications frequency, or cycles per second.

**High Intensity Runway Lights (HIRL)** - Lights that are placed along the edge of a runway generally at 200-foot intervals. They are designed to assist pilots in identifying the edge of the surface prepared for landings and takeoffs. This is the most intense runway edge lighting system and is most readily found at high-activity airports having wider runways and precision instrument approaches.

**HIRL** - see High Intensity Runway Lights.

**IFR** - see Instrument Flight Rules.

**IFR Conditions** - Weather conditions below the minimum for flight under Visual Flight Rules (VFR).

**ILS** - see Instrument Landing System.

**Imaginary Surfaces** - Surfaces established in relation to the end of each runway or designated takeoff and landing areas for heliports, as defined in paragraphs 77.25, 77.28 and 77.29 of FAR Part 77 "Objects Affecting the Navigable Airspace." Such surfaces include the approach, horizontal, conical, transitional, primary and other surfaces.

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

**Instrument Flight Rules (IFR)** - Rules governing the procedures for conducting flight under instrument meteorological conditions.

**Instrument Landing System (ILS)** - A precision instrument approach system. An ILS consists of two radio transmitters that serve a specific runway end; one radio beam is called the localizer and the other the glide slope. The localizer indicates to pilots whether they are left or right of the correct alignment for approach to the runway. The glide slope indicates the correct angle of descent to the runway (glide slopes vary from 2° to 3°). In order to further help pilots on their ILS approach, at least one low-powered fan marker called an ILS marker is usually installed so that pilots may know just how far along the approach to the runway they have progressed. The one required marker is called the outer marker (OM) and is located about 4 to 5 nautical miles from the end of the runway; the other optional marker for Category I operations is the middle marker (MM) located about 3,000 feet from the end of the runway. For category II operations (when visibility is quite poor), in addition to an MM, an additional marker called the inner marker (IM) is located 1,000 feet from the end of the runway. This marker is placed so as to alert pilots that they must have visual reference with the ground at that point and, if not, abandon the approach. When the plane passes over the marker, a light goes on in the cockpit and a high-pitched tone sounds. An ILS serves only one runway end.

**Instrument Operation** - An aircraft operation flown in accordance with an IFR flight plan or as one where IFR separation between aircraft is provided by air traffic controllers.

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

**Intersecting Runways** - Two or more runways that cross or meet within their lengths.

**Itinerant Operations** - An aircraft operation where the destination point is greater than 20 miles from the aircraft's point of origin.

**Knots** - Nautical miles per hour, equals 1.15 statute miles per hour.

**Localizer (LOC)** - A component of an ILS navigation facility in the terminal area electronic navigation system. The localizer provides horizontal guidance to the runway centerline for aircraft during approach and landing.

**Local Operation** - An aircraft operation where the destination point is within 20 miles of the aircraft's point of origin.

**MALSR** - see Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.

**Mean Sea Level (MSL)** - The average height of surface of the sea measured over the complete cycle of high and low tides (a period of 18.6 years).

This measure is used in aviation for pilots to identify the flight elevation or field elevation above sea level, as opposed to above the ground level (AGL).

**Medium Intensity Runway Lights (MIRL)** - Lights that are placed along the edge of a runway generally at 200-foot intervals. They are designed to assist pilots in identifying the edge of the surface prepared for landings and takeoffs.

**Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR)** - A lane of lights, coupled with flashing strobe lights, to assist pilots in visually identifying the runway environment.

**Microwave Landing System (MLS)** - An instrument approach and landing system operating in the microwave spectrum which provides lateral and vertical guidance to aircraft having compatible avionics equipment. Similar to ILS system.

**Minimums** - A set of conditions specified for operations of aircraft during IFR approach and departure under adverse weather conditions.

**MIRL** - see Medium Intensity Runway Lights.

**National Plan of Integrated Airport Systems (NPIAS)** - A plan specifying in terms of general location and type of development the projects considered by the FAA to be necessary to provide a system of public use airports adequate to meet current and forecast needs of civil aeronautics. In

order to qualify for Federal funds, an airport must be included in the NPIAS.

**Navigational Aid (Navaid)** - Any visual or electronic device (airborne or on the surface) that provides point-to-point guidance.

**Nautical Mile** - Equivalent to 1.15 statute miles or 6,076 feet.

**Noise** - Defined subjectively as unwanted sound. The measurement of noise involves understanding 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, which shift aviation impacts away from noise sensitive areas (e.g. runway use programs and preferred arrivals and departures).

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

**Noise Control Plan** - Documentation by the airport proprietor of actions to be taken by the proprietor, along or in cooperation with the FAA, airport users, and affected units of local government, with appropriate input from affected citizens, to reduce the impact of aviation noise.

**Non-Based Itinerant Operation** - An itinerant operation generated by aircraft from another airport as opposed to a similar operation generated by aircraft based at that airport.

**Non-Directional Beacon (NDB)** - A general purpose, low frequency radio beacon that a pilot of a properly equipped aircraft can use to determine a bearing from the transmitter.

**Non-Precision Instrument Runway** - A runway having instrument approach equipment that provides horizontal, but not vertical, course guidance or area type navigation to touchdown.

**NPIAS** - see National Plan of Integrated Airport Systems.

**Object Free Area (OFA)** - The area on the ground centered on a runway, taxiway, 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.

**Obstruction** - Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein the height of which exceeds the obstruction standards of subpart C of FAR Part 77 "Objects Affecting Navigable Airspace."

**Ohio State Aviation System Plan** - A system planning process for the airports of Ohio, administered by the Ohio Department of

Transportation, Office of Aviation and published periodically.

**Operations** - The total number of landings (arrivals) and takeoffs (departures) from an airport. There are two types of operations, local and itinerant. Local operations include arrivals and departures of aircraft which operate in the local traffic pattern or within sight of the tower and are known to be departing for or arriving from flights in local practice areas within a 20-mile radius of the airport and/or control tower; plus simulated instrument approaches or low passes at the airport executed by any aircraft. Itinerant operations include all aircraft arrivals and departures other than the local operations described above.

**Precision Approach Path Indicator (PAPI) / Visual Approach Slope Indicator (VASI)** - A navigational aid to visually identify the glide path to the runway. PAPI/VASI lights project red and white beams from the approach end of the runway.

**Parallel Runways** - Two or more runways of the same magnetic bearing at the same airport.

**Privately Owned, Private Use Airport** - An airport owned by a non-governmental entity that is only open to preordained users.

**Privately Owned, Public Use Airport** - An airport owned by a non-governmental entity that offers the use of its facilities to the public without prior notice or special invitation or clearance.

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

**REIL** - see Runway End Identifier Lights.

**Reliever Airport** - General aviation airports in metropolitan areas that fulfill specific congestion relief functions for the primary commercial service airport.

**Runway** - A defined area on a land airport prepared for the landing and takeoff of aircraft. Runways are normally numbered in relation to their magnetic direction.

**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 Protection Zone (RPZ)** - The RPZ is trapezoidal in shape and centered on the extended runway centerline. It begins 200 feet beyond the end of the area usable for takeoff or landing. The RPZ dimensions are functions of the type of aircraft and operations to be conducted on the runway. The RPZ's function is to enhance the protection of people and property on the ground. This is achieved through airport owner control over RPZs. Such control includes clearing RPZ areas (and maintaining them clear) of incompatible objects and activities. Control is preferably exercised through the acquisition of sufficient property interest in the RPZ.

**Single Wheel Gear (SW)** - The configuration of aircraft gear where a single wheel is used at each wheel position to support the aircraft load. This designation is used in pavement strength analysis.

**Sponsor** - Generally a governmental body that can legally contract for AIP grant funds for the construction or expansion of a public airport, obligating itself to keep the facility in operation for a predetermined number of years after such construction or expansion is completed.

**SW** - see Single Wheel Gear.

**T-hangar** - A linear structure with interior bays that are of a "T" shape and which provides shelter for a given number of aircraft.

**Taxiway** - A specially prepared area over which aircraft can taxi from one part of an airport to another or to and from the landing areas or runways.

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

**Threshold** - The beginning of that portion of a runway usable for landing.

**Touch and Go** - A practice maneuver consisting of landing and a takeoff performed without coming to a complete stop. A touch and go is defined as two operations: a landing and a takeoff.

**Traffic Pattern** - Projections on the ground of the aerial path associated with an aircraft on the

crosswind, downwind, base, and final approach legs of the approach/departure process:

*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.

*Base Leg* - A flight path at right angles to the landing runway off its approach end. The base leg normally extends from the downwind leg to the intersection of the extended runway centerline.

*Final Approach* - A flight path in the direction of landing along the extended runway centerline. The final approach normally extends from the base leg to the runway. An aircraft making a straight-in approach VFR is also considered to be on final approach.

**U.S. Terminal Instrument Procedures (TERPS)** - Procedures established by the FAA governing instrument approaches.

**VASI** - see Visual Approach Slope Indicator.

**Very-high frequency Omnidirectional Range (VOR)** - A VOR station sends out radio signals in all directions. Each signal can be considered as a course or a route (referred to as a radial) that can be followed by an aircraft. Split into 1° intervals, there are 360 courses or routes that are radiated from a VOR station, from 0° pointing toward magnetic north increasing to 360° in a clockwise direction. The VOR transmitter station broadcasts on a frequency just above that of FM radio stations.

VOR stations establish the network of airways and jet routes and are also essential to area navigation.

**VFR** - see Visual Flight Rules.

**Visual Approach** - An approach where an aircraft on IFR flight plan or operating in VFR conditions, under the control of an air traffic control facility and having an air traffic control authorization may proceed to the airport of its destination in VFR conditions.

**Visual Approach Slope Indicator (VASI) / Precision Approach Indicator (PAPI)** - A navigational aid to visually identify the glidepath to the runway. VASI/PAPI lights project red and white beams from the approach end of the runway.

**Visual Flight Rules (VFR)** - Flight rules that identify conditions when weather is adequate for aircraft to maintain safe separation by visual means. Under VFR conditions, safe separation between aircraft is the responsibility of the pilot.

**Visual Runway** - A runway without an existing or planned straight-in instrument approach procedure.

**VOR** - see Very-high frequency Omnidirectional Range.

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