

# Appendix A

## Glossary of Terms

## A

### **ABBREVIATED VISUAL APPROACH SLOPE INDICATOR SYSTEM (AVASI)**

### **ABOVE GROUND LEVEL (AGL)**

**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 (see Declared Distances).

**ADVISORY CIRCULAR (AC)** – Federal Aviation Administration Advisory Circular. This is an FAA document which provides guidance on aviation issues.

**ADVISORY SERVICE** – Advice and information provided by a facility to assist pilots in the safe conduct of flight and aircraft movement.

**AIR CARGO** - Freight, mail, and express packages transported by air. Includes perishable foods and livestock.

**AIR CARRIER** - Aircraft operating under certificates of public convenience and necessity issued by the FAA, which authorizes scheduled air transportation over specified routes, a limited amount of non-scheduled air transportation over specified routes, and a limited amount of non-scheduled flights.

### **AIR FORCE BASE (AFB)**

**AIR NAVIGATION AID FACILITY (NAVAID)** – Any facility used or available for use as an aid to air navigation, including landing areas; lights; any apparatus or equipment for disseminating weather information, for signaling, for radio direction-finding, or for radio or other electronic communication; and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or during the landing or takeoff of aircraft.

**AIR ROUTE SURVEILLANCE RADAR (ARSR)** - Long-range radar that increases the capacity of air traffic control for handling heavy en route traffic. An ARSR site is usually some distance from the Air Route Traffic Control Center it serves. Its range is approximately 200 nautical miles. Also, called ATC Center Radar.

**AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)** - A facility providing 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** - Aircraft operated by a company or individual that provides transportation on a non-scheduled basis over unspecified routes usually with light aircraft.

**AIR TAXI** - A FAR Part 135 certificated air carrier carrying passengers and cargo for hire and operating under exemption authority from the Civil Aeronautics Board; aircraft of 30 seats or less or maximum payloads of 7,500 lbs.

**AIR TRAFFIC CONTROL CLEARANCE** – An authorization by air traffic control for the purpose of preventing collision between known aircraft, or for an aircraft to proceed under specified traffic conditions within controlled airspace. A clearance is also a communicated authorization or approval from ATC for an aircraft to conduct certain maneuvers, such as altering heading or altitude, taking off, and landing.

**AIR TRAFFIC CONTROL SERVICE (ATC)** – A service provided for the purpose of promoting the safe, orderly, and expeditious flow of air traffic, including airport, approach, and en route air traffic control services. ATC is provided by the Federal Aviation Administration, a branch of the federal government under the Department of Transportation.

**AIR TRAFFIC CONTROL TOWER (ATCT)** – A facility providing airport traffic control service to an airport and its associated airspace area.

#### **AIR TRANSPORT ASSOCIATION (ATA)**

**AIRCRAFT APPROACH CATEGORY** - A grouping of aircraft based on a speed of 1.3 times the stall speed in the landing configuration at maximum gross landing weight. An aircraft shall fit in only one category. If it is necessary to maneuver at speeds in excess of the upper limit of a speed range for a category, the minimums for the next higher category should be used. For example, an aircraft that falls in Category A, but is circling to land at a speed in excess of 91 knots, should use the approach Category B minimums when circling to land. The categories are:

- 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; and,
- Category E - Speed 166 knots or more.

**AIRCRAFT CLASSES** - For the purposes of wake turbulence separation minima, ATC classifies aircraft as heavy, large, and small as follows:

- Heavy - Aircraft of 300,000 pounds or more maximum certification;
- Large - Aircraft of more than 12,500 pounds but less than 300,000 pounds, maximum certificated takeoff weight; and,
- Small - Aircraft of 12,500 pounds or less maximum certificated takeoff weight.

**AIRCRAFT PARKING LINE LIMIT** – An aircraft parking line limit is a line established by FAA AC 5300-13, beyond which no part of a parked aircraft should protrude.

#### **AIRCRAFT RESCUE AND FIREFIGHTING FACILITIES (ARFF)**

**AIRCRAFT TYPES** - An arbitrary classification system that identifies and groups aircraft having similar operational characteristics for the purpose of computing runway and terminal area capacity.

**AIRPLANE DESIGN GROUP (ADG) (PHYSICAL CHARACTERISTICS)** – 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).

**AIRPLANE DESIGN GROUP (ADG)** - A grouping of airplanes based on wingspan. The groups are as follows:

- Group I: Up to but not including 49 feet;
- Group II: 49 feet up to but not including 79 feet;
- Group III: 79 feet up to but not including 118 feet;
- Group IV: 118 feet up to but not including 171 feet;
- Group V: 171 feet up to but not including 214 feet; and,
- Group VI: 214 feet up to but not including 262 feet.

#### **AIRPORT AIRSPACE ANALYSIS (AAA)**

#### **AIRPORT DESIGN (AD)**

**AIRPORT DEVELOPMENT AID PROGRAM (ADAP)** – A program originally established by the Airport and Airway Development Act of 1970 to provide federal funds for certain airport improvements and new airport development; the original legislation has been revised on various occasions, resulting in the present day Airport and Airway Improvement Act of 1982. This program has been replaced by the Airport Improvement Program (AIP).

**AIRPORT HAZARD** – An airport hazard is any structure or natural object located on or in the vicinity of a public 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 the airport or is otherwise hazardous to aircraft landing, taking off, or taxiing at the airport.

**AIRPORT IMPROVEMENT PROGRAM (AIP)** - The AIP provides federal funding from the Aviation Trust Fund for airport development, airport planning, noise compatibility planning, and similar programs. The AIP is implemented under various authorization acts that cover a specific time period.

**AIRPORT LAYOUT PLAN (ALP)** – An airport layout plan is a scale drawing of the airport showing:

- (1) The boundaries of the airport and all its proposed additions together with the boundaries of offsite areas owned or controlled by the airport authorities for air-purposes, including additions;
- (2) The exact location, type, and dimensions (including height) of all existing and proposed airport facilities and structures such as runways, taxiways, aprons, terminal buildings, and roads, as well as all proposed extensions and reductions of existing airport facilities; and,

- (3) The location of all existing and proposed non-aviation areas and all their existing improvements.

**AIRPORT LAYOUT PLAN DRAWING SET** -The airport layout plan drawing set consists of a number of graphics drawn to scale, showing both existing and planned airport facilities as well as on-airport and adjoining-airport land uses. Depending on the specific requirements of the planning project, airport size, and activity level, some drawings may not be required or can be combined. Drawings that should be created:

- Title Sheet;
- Airport Layout Drawing;
- Terminal Area Drawing;
- Inner Portion of the Approach Surface Drawing;
- Airport Airspace Drawing;
- Airport Property Drawing;
- Land Use Drawing; and,
- Airport Access Drawing.

**AIRPORT REFERENCE CODE** - The airport reference code (ARC) is a coding system used to relate airport design criteria to the operational and physical characteristics of airplanes anticipated to operate at the airport. As described in FAA AC 150/5300-13, the ARC is made up of two components. The first considers the aircraft approach category to be served. For example, aircraft with approach speeds of less than 91 knots are within Category A. Speeds of 91 knots but less than 121 knots are within Category B. Speeds of 121 knots but less than 141 knots are within Category C, and speeds of 141 knots but less than 166 knots are within Category D. The second component considers the airplane design group (ADG) to be served, which is based on wingspan. For example, Group I includes aircraft having a wing span of up to but not including 49 feet. Group II includes aircraft having a wing span of 49 feet up to but not including 79 feet, and Group III includes aircraft having a wingspan of 79 feet up to but not including 118 feet.

**AIRPORT REFERENCE POINT (ARP)** – An ARP is a point having equal relationship to all existing and proposed landing and takeoff which is used to locate the airport geographically.

**AIRPORT ROLE** - The capability of an airport defined in terms of the classes of aircraft that it can accommodate or in the case of air carrier airports, the route length it serves non-stop in its market area. Role types in the state of Florida include:

- Basic Utility Airport;
  - General Utility Airport;
  - Transport Airport;
  - Heliport;
  - Seaplane Base;
  - Short Haul;
  - Medium Haul; and,
  - Long Haul.
- (See specific role type for definition)

**AIRPORT SERVICE LEVEL** - Classification of an airport based on its functional role in the community. Service levels include:

- Commercial Service Airport;
  - General Aviation Airport; and,
  - Reliever Airport.
- (See specific service level type for definition).

**AIRPORT SURFACE DETECTION EQUIPMENT (ASDE)** – Radar equipment specifically designed to detect all principal features on the surface of an airport, including vehicular traffic, and to present the entire picture on a radar indicator console.

**AIRPORT SURVEILLANCE RADAR (ASR)** - Radar tracking aircraft by azimuth and range data without elevation data. It has a range of 50 miles. Also, called ATC Terminal Radar.

**AIRPORT SURVEILLANCE RADAR (ASR)** – Radar providing the position of an aircraft by azimuth and range data without elevation data. It is used for terminal approach, departure, and aircraft overflights.

**AIRPORTS DISTRICT OFFICE (ADO)** - Administrative regional office of FAA that oversees airport development projects.

**AIRSPACE** - The space above a certain area of land or water, used for flight, landings, and takeoffs.

**AIRWAY** – A control area in the form of a corridor, in which the centerline is defined by radio or other navigational aids. Airways are used by aircraft in a similarly to the way automobiles use highways.

#### **AIRWAY FACILITIES SECTOR FIELD OFFICE (AFSFO)**

**ALERT AREA** - A category of special use airspace of defined dimensions identified by an area from the surface of the earth to a specified altitude where DOD flight training occurs.

**ALSF-II** - High intensity approach lighting system with sequenced flashing lights.

**ALTERNATE AIRPORT** – An airport specified on a flight plan to which a flight may proceed when a landing at the point of first intended landing becomes inadvisable.

#### **ANNUAL INSTRUMENT APPROACH (AIA)**

**ANNUAL SERVICE VOLUME (ASV)** - A reasonable estimate of the maximum number of annual aircraft operations that can theoretically be conducted at an airport, based on configuration, aircraft fleet mix, use, etc.

**APPROACH CONTROL SERVICE** – Air traffic control service provided by an approach control facility for arriving and departing VFR/IFR aircraft and, on occasion, tower en route control service.

**APPROACH END OF RUNWAY** – The approach end of runway is the near end of the runway as viewed from the cockpit of a landing airplane.

**APPROACH FIX** – The navigational point, determined electronically or geographically, from or over which the final approach (IFR) to an airport is executed.

**APPROACH GATE** – That point on the final approach course which is one mile from the approach fix on the side away from the airport or five miles from the landing threshold, whichever is farther from the landing threshold.

**APPROACH LIGHT SYSTEM (ALS)** – An airport lighting system designed to assist pilots in finding the runway during instrument approaches for landing. The lights extend from the runway end outwards along the extended centerline for a certain distance, depending on the type of runway.

**APPROACH SEQUENCE** – The order in which aircraft are positioned while awaiting approach clearance or while on approach.

**APPROACH SURFACE** – An imaginary surface extending out from the end of the Primary Surface at a slope and width defined in FAR Part 77, above which the airspace must be free of obstacles as aircraft approach or depart the runway.

**AQUEOUS FILM FORMING FOAM (AFFF)** –Used by Aircraft Rescue and Fire Fighting (ARFF) vehicles for aircraft related emergencies.

**AREA NAVIGATION (RNAV)** – A method of navigation that permits aircraft operations on any desired course within the coverage of station referenced navigation signals or within the limits of self-contained system capability.

**ARMY NATIONAL GUARD (ANG)**

**ASPH** - Abbreviation for runway surface composed of asphalt.

**AUTOMATED RADAR TERMINAL STATION (ARTS)**

**AUTOMATED WEATHER OBSERVING SYSTEM (AWOS)**

**AVIATION SAFETY AND NOISE ABATEMENT ACT OF 1979 (ASNA)**

**AVIGATION EASEMENT** - The conveyance of a specified property interest in the airspace over real property which grants rights and imposes restrictions. Rights include: right-of-flight; right-of-entry to remove and/or mark obstructions; right to cause noise, vibration, fumes, dust, and fuel particles, etc. Restrictions include: penetration of Far Part 77 surfaces by structures, growths, or obstructions; creation of electrical interferences with aircraft avionics, lighting that may confuse a pilot during approach, air emissions that may visually impair a pilot's vision, incompatible land uses, etc.

**AZIMUTH (AZ)** - The horizontal angle measured clockwise from north to an object. Also, see True Bearing.

## B

**BASED AIRCRAFT** - An aircraft permanently stationed at an airport, usually by agreement between the aircraft owner and airport management (or FBO).

**BASIC UTILITY AIRPORT** - Airports that can accommodate 95 percent of the general aviation propeller-drive fleet of aircraft under 12,500 pounds maximum gross weight.

**BRL** - Building Restriction Line.

## C

**CAPACITY** - The number of takeoffs and landings that can be safely handled within an acceptable level of delay. Airfield capacity represents the maximum number of operations (landings and takeoffs) that can be performed hourly or annually at an airport.

### **CATEGORY I, II, AND III LANDINGS –**

- Category I: 200 foot ceiling and 2400 foot RVR;
- Category II: 100 foot ceiling and 1200 foot RVR;
- Category IIIA: zero ceiling and 700 foot RVR;
- Category IIIB: zero ceiling and 150 foot RVR;
- Category IIIC: zero ceiling and zero RVR.

To make landing under these conditions, aircraft must be equipped with special avionics, pilot must be qualified to land under specified conditions for that category, and aircraft must have proper ground equipment for conditions.

**CATEGORY I INSTRUMENT LANDING SYSTEM (CAT I)** - Precision Approach Category I. An instrument approach procedure that provides for approaches to a decision height of not less than 200 feet (60m) and visibility of not less than 1/2 mile (800m), or a runway visual range 2,400' (or 1,800' with operative touchdown zone and runway centerline lights).

**CATEGORY II INSTRUMENT LANDING SYSTEM (CAT II)** - Precision Approach Category II. An instrument approach procedure that provides for approaches to a minima less than CAT I to as low as a decision height of not less than 100 feet (30m) and runway visual range of not less than 1,200'.

**CATEGORY III A INSTRUMENT LANDING SYSTEM (CAT III A)** - Precision Approach Category III. An instrument approach procedure which provides for approaches to a minima less than CAT II.

**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" and not classified as "thin" or "partial". The ceiling is reported in feet above the surface in a given location.

**CENTER FIELD WIND (CFW)**

**CENTERLINE LIGHTING (CL)**

**CENTRAL BUSINESS DISTRICT (CBD)**

**CERTIFICATED POINT** – A city, place, or population center authorized to receive scheduled air service under a Certificate of Public – Convenience and Necessity, or under an exemption issued to an air carrier.

**CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY** - A document issued to an air carrier under Section 401 of the Federal Aviation Act by the Civil Aeronautics Board authorizing the carrier to engage in air transportation.

**CIRCLING APPROACH** - A descent in an approved procedure to an airport; a circle-to-land maneuver.

**CIVIL AERONAUTICS BOARD (CAB)** - Former federal agency responsible for overseeing and regulating the air carrier industry; the FAA carries out these tasks.

**CIVIL AIR FACILITY (CAF)**

**CLEAR ZONE** - Formally, the inner portion of the runway approach zone, now called the Runway Protection Zone (RPZ).

**CLEAR ZONE** – Defined by FAR Part 77 as an area off each runway end to be void of trees and other obstacles. The FAA has replaced this area with the Runway Protection Zone (RPZ).

**CLEARWAY (CWY)** - A defined rectangular area beyond the end of a runway cleared or suitable for use in lieu of a runway to satisfy takeoff distance requirements.

**CLEARWAY** – A clearway is an area beyond the stop end of runway, not less than 500 feet (150 m) wide, centered on the extended centerline of the runway, and controlled by the airport authorities. The clearway is expressed in terms of a geometric plane extending from the end of the runway, with an upward slope not exceeding 1.25 percent, above which no object nor terrain may protrude. Threshold lights, however, may protrude above the clearway plane if their height above the end of the runway is 26 inches (66 cm) or less and if they are located to each side of the runway. A clearway increases the allowable operating takeoff weights of turbine-powered airplanes. For most airplanes, the maximum usable length of the clearway is less than 1,000 feet (300 m).

**CODE OF FEDERAL REGULATION (CFR)**

**COMMERCIAL SERVICE AIRPORT** - An airport that handles scheduled passenger service by FAA-certified air carriers.

**COMMERCIAL SERVICE AIRPORT** – A public airport which enplanes 2,500 or more passengers annually and receives scheduled commercial passenger service. See “AIR CARRIER” for more information.

**COMMUTER AIRLINE** - Aircraft operated by an airline that performs scheduled flights over specified routes using light aircraft. Light aircraft have 30 seats or less and a maximum payload capacity of 7,500 pounds or less.

**COMMUTER AIRLINES** – Scheduled commuter air carrier operating with passengers, cargo, or mail for revenue in accordance with FAR Part 135 or Part 121.

**COMPOSITE NOISE RATING (CNR)** – An aircraft noise impact measuring methodology.

**CONTROL TOWER** - A central operations facility in the terminal air traffic control system consisting of a tower cab structure (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.

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

**Note 1:** Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E airspace.

**Note 2:** Controlled airspace is also that airspace within which all aircraft operators are subject to certain pilot qualifications, operating rules, and equipment requirements in Part 91 (for specific operating requirements, please refer to Part 91). For IFR operations in any class of controlled airspace, a pilot must file an IFR flight plan and receive an appropriate ATC clearance. Each Class B, Class C, and Class D airspace area designated for an airport contains at least one primary airport around which the airspace is designated (for specific designations and descriptions of the airspace classes, please refer to Part 71). Controlled airspace in the United States is designated as follows:

- **Class A** - Generally, the airspace from 18,000 feet MSL up to and including Flight Level 600 (60,000 feet), including the airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous states and Alaska. Unless otherwise authorized, all persons must operate their aircraft under IFR.

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

- **Class C** - Generally, the airspace from the surface to 4,000 feet above the airport elevation (charted in MSL) and surrounding those airports that have an operational control tower, are serviced by a radar

approach control, and have a certain number of IFR operations or passenger enplanements. Although the configuration of each Class C area is individually tailored, the airspace usually consists of a surface area(s) with a five nautical miles radius and an outer area. Each person must establish two-way radio communications with the ATC facility providing air traffic services before entering the airspace and then maintain communications while in the airspace. VFR aircraft are only separated from IFR aircraft within the airspace.

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

- **Class E** - Generally, if the airspace is not Class A, Class B, Class C, or Class D, and it is controlled airspace, it is Class E airspace. Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. When designated as a surface area, the airspace will be configured to contain all instrument procedures. Also, in this class are Federal airways, airspace beginning at either 700 or 1,200 feet AGL used to transition to and from the terminal or en route environment, en route domestic, and offshore airspace areas designated below 18,000 feet MSL. Unless designated at a lower altitude, Class E airspace begins at 14,500 MSL over the United States, including that airspace overlying the waters within 12 nautical miles off the coast of the 48 contiguous states and Alaska, and up to, but not including, 18,000 feet MSL, and the airspace above FL600.

## D

**DAY-NIGHT AVERAGE SOUND LEVEL (DNL)** - The 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7:00a.m., and between 10:00 p.m. and midnight, local time. The symbol for DNL is Ldn.

**DAY NIGHT AVERAGE SOUND LEVEL – NOISE METRIC (DNL)** – Standard unit of measure for aircraft noise studies.

**DECIBEL (Db)**

**A-WEIGHTED DECIBEL (DbA)**

**DECISION HEIGHT (DH)** - The height at which a decision must be made, using an ILS or PAR instrument approach, to either continue the approach or to execute a missed approach.

**DECISION HEIGHT (DH)** – The height above the highest runway elevation in the touchdown zone at which a missed approach shall be initiated if the required visual reference has not been established. This term is used only in procedures where an electronic glide slope provides the reference for descent, as in ILS.

**DECLARED DISTANCES** - The distances the airport owner declares available and suitable for satisfying the airplane's takeoff run, takeoff distance, accelerate stop distance, and landing distance requirements. The distances are: (see TORA, TODA, ASDA, and LDA).

**DECLARED DISTANCES** – Declared distances are the runway distances that limit turbine-powered airplane operations and thus the airport operational capacity. The distances are the accelerated stop distance available (ASDA), the Landing Distance Available (LDA), the Takeoff Distance Available (TODA), and the Takeoff Run Available (TORA).

- 1) ASDA is equal to TORA plus the length of the stopway (SWY), if provided.
- 2) LDA is equal to the length of runway available and suitable for the landing ground run of airplanes.
- 3) TODA is equal to TORA plus the length of the clearway (CWY), if provided.
- 4) TORA is equal to the length of runway available and suitable for the takeoff ground run of airplanes.

#### **DEPARTMENT OF DEFENSE (DOD)**

**DEPARTURE CONTROL** – A function of air traffic control providing service for departing IFR aircraft and, on occasion, VFR aircraft.

**DESIGN AIRCRAFT** – The Design Aircraft is an aircraft whose dimensions and/or other requirements make it the most demanding aircraft for an airport's facilities (i.e., runways and taxiways). The Design Aircraft is used as the basis for airport planning and design; because if the airport's facilities are designed to accommodate the Design Aircraft, they can accommodate less demanding aircraft as well. An aircraft can be utilized as the Design Aircraft for an airport if it will (has) conduct(ed) 500 or more annual operations (250 landings) at that airport.

#### **DEVELOPMENT OF REGIONAL IMPACT (DRI)**

**DISPLACED THRESHOLD** - The portion of pavement behind a displaced threshold may be available for takeoffs in either direction and roll-out landings from the opposite direction.

**DISPLACED THRESHOLD** – A displaced threshold is a threshold located at a point on the runway other than at the runway end. Except for the approach standards defined in FAR Part 77, approach surfaces are associated with the threshold location.

**DISTANCE MEASURING EQUIPMENT (DME)** - An electronic installation with either a VOR or ILS to provide distance information from the facility to pilots by electronic signals. It measures, in nautical miles, the distance of an aircraft from a NAVAID.

**DISTANCE MEASURING EQUIPMENT (DME)** – Equipment (airborne and ground) used to measure, in nautical miles, the distance of an aircraft from a NAVAID.

**DME FIX** – A geographical position determined by reference to a NAVAID which provides distance and azimuth information. The DME fix is defined by a specified distance in nautical miles and a radial in degrees magnetic from that aid.

**DXF** - AutoCAD Drawing Interchange file format.

## E

### **ELEVATION (EL)**

**EN ROUTE** - The route of flight from departure to destination, including intermediate stops (excludes local operations).

**EN ROUTE AIRSPACE** - Controlled airspace above and/or adjacent to terminal airspace.

**EN ROUTE FLIGHT ADVISORY SERVICE (Flight Watch)** – Is a service specifically designed to provide the pilot with timely weather information pertinent to his type of flight, route of flight, and altitude.

**ENPLANED PASSENGER** – The number of revenue passengers boarding aircraft, including originating, stopover, and transfer passengers.

**ENPLANEMENTS** - The total number of revenue passengers boarding aircraft, including originating, stopover, and transfer passengers in scheduled and nonscheduled services.

### **ENVIRONMENTAL ASSESSMENT (EA)**

### **ENVIRONMENTAL DATA SERVICE (EDS)**

**ENVIRONMENTAL IMPACT STATEMENT (EIS)** – An environmental report describing environmental impacts which would occur during the implementation of airport improvement projects. This report includes mitigation measures and public comment.

### **ENVIRONMENTAL PROTECTION AGENCY (EPA)**

## F

**FEDERAL AID TO AIRPORTS PROGRAM (FAAP)** – FAA program to provide financial aid to airports. This has been replaced by the Airport Improvement Program (AIP).

**FEDERAL AVIATION ADMINISTRATION (FAA)** – Branch of the Federal Government (Department of Transportation) responsible for the safety of aviation and the operation of the air traffic control system, as well as other aviation related tasks.

**FEDERAL AVIATION REGULATION (FAR)** – Regulations developed by the FAA in order to maintain safety, define standards, and institute uniform practices throughout the industry.

**FILLET** – A concave junction formed where two surfaces meet (as at an angle), a strip that gives a rounded appearance to such a junction; also, a strip to reinforce the corner where two surfaces meet.

**FINAL APPROACH** – A flight path of a landing aircraft in the direction of landing along the extended runway centerline from the base leg to the runway. For instrument approaches, the final approach begins at the final approach fix (FAF).

**FINAL APPROACH FIX (FAF)** – The fix from or over which final approach (IFR) to an airport is executed.

**FINAL APPROACH IFR** - The flight path of an aircraft that is inbound on an approved final instrument approach course, beginning at the point of interception of that course and extending to the airport or the point where circling for landing or missed approach is executed.

**FINAL APPROACH VFR** - A flight path of landing aircraft in the direction of landing along the extended runway centerline from the base leg to the runway.

#### **FISCAL YEAR (FY)**

**FIX** – A geographical position determined by visual reference to the surface by reference to one or more radio NAVAIDS, by celestial plotting, or by another navigational device.

**FIXED BASE OPERATION OR FIXED BASE OPERATOR (FBO)** – A sales and/or service facility located at an airport, or the person who operates such a facility.

**FLEET MIX** - The proportion of aircraft types or models expected to operate at an airport.

**FLIGHT PLAN** – Specified information relating to the intended flight of an aircraft that is filed orally or in writing with an air traffic control facility.

**FLIGHT SERVICE STATION (FSS)** - A facility operated by the FAA to provide flight assistance services.

#### **FLIGHT TRACK (FT)**

**FLORIDA AVIATION SYSTEM PLAN (FASP)** -The aviation plan for Florida that provides documentation related to airports and related facilities needed to meet current and future statewide aviation demands.

#### **FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)**

## **G**

**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).

**GENERAL AVIATION AIRPORT** - All public airports except commercial service airports.

**GENERAL UTILITY (GU) AIRPORT** - Airports that can accommodate all general aviation aircraft under 12,500 pounds maximum gross weight.

**GENERIC VISUAL GLIDESLOPE INDICATOR (GVGI)** – This is a general term which includes all airport light systems used to assist pilots in maintaining the proper glideslope while on final approach to the runway during landing. These systems use colored lights to warn pilots of their position in reference to the proper glideslope. GVGI's include Precision Approach Path Indicators (PAPI) and Visual Approach Slope Indicators (VASI).

**GLIDE SLOPE (GS)** – 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 system of navigation beacons mounted on satellites that orbit the earth. The system allows users to fix their position to a high degree of accuracy anywhere on earth.

**GLOBAL POSITIONING SYSTEM (GPS)** – GPS is a navigational system based on the use of multiple satellites strategically placed in the earth's orbit. GPS is used by aircraft equipped with the proper GPS receiving equipment for en route navigation, as well as instrument approaches to airports for landing. GPS allows aircraft to fly more freely and set waypoints (destinations) without the need or reliance on ground based radio navigation facilities such as VORs.

**GROUND SERVICE (GS)** – An indication that a given airport is staffed – usually offering aviation fuel and at least minor maintenance services.

## H

**HAZARD TO AIR NAVIGATION** – Any object which has a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft or on the operation of air navigation facilities is a hazard to air navigation. The FAA will conduct an aeronautical study of any object to determine whether or not the object is a hazard to air navigation. As part of the airport layout plan approval process, the FAA conducts aeronautical studies of all obstructions to air navigation identified on the Airport Layout Plan. Hazards or potential hazards to air navigation are eliminated by either altering the existing or proposed object or adjusting the aviation operation to accommodate the object, in that order of priority.

**HEIGHT ABOVE AIRPORT (HAA)** – Indicates the height of the MDA above the published airport elevations. This is published in conjunction with circling minimums.

**HELIPORT** - A specialized airport for the exclusive operation and basing of rotorcraft.

**HERTZ (Hz)** – Cycles per second.

**HIGH ALTITUDE AIRWAYS** - Air routes above 18,000 feet MSL. These are referred to as Jet Routes.

**HIRL** - High Intensity Runway Edge Lighting.

**HOLDING** - A predetermined maneuver that keeps an aircraft within a specified airspace while awaiting clearance to land.

**HOLDING FIX** – A specified geographical point or NAVAID used as a reference point in establishing and maintaining the position of an aircraft while holding.

**HUD** - Department of Housing and Urban Development.

## I

**IFR CONDITIONS** – Weather conditions below the minimum prescribed for flight under VFR.

**INITIAL APPROACH** – The segment of a standard instrument approach procedure between the initial approach fix and the intermediate fix, or the point where the aircraft is established on the intermediate segment of the final approach course.

**INITIAL APPROACH ALTITUDE** – The altitude prescribed for the initial approach segment of an instrument approach.

**INITIAL GRAPHICS EXCHANGE SPECIFICATION (IGES)** – Initial graphics exchange specification file format.

**INNER MARKER (IM)**

**INSTRUMENT APPROACH** - An approach conducted while the final approach fix is below VFR minimums.

**INSTRUMENT FLIGHT RULES (IFR)** - Instrument Flight Rules that govern flight procedures under limited visibility or other operational constraints.

**INSTRUMENT FLIGHT RULES (IFR)** – Aircraft operation rules as prescribed by Federal Aviation Regulations for flying by instruments.

**INSTRUMENT LANDING SYSTEM (ILS)** - A precision approach landing system consisting of a localizer (azimuth guidance), glide slope (vertical guidance), outer marker (final approach fix), and approach light system.

**INSTRUMENT LANDING SYSTEM (ILS)** – A system of electronic devices whereby the pilot guides his aircraft to a runway solely by reference to instruments in the cockpit. In some instances the signals

received from the ground can be fed into the automatic pilot for automatically controlled approaches. The ILS consists of a Localizer, Glideslope and Marker Beacons (and Approach Light System).

#### **INSTRUMENT METEOROLOGICAL CONDITIONS (IMC)**

**INSTRUMENT OPERATION** - A landing or takeoff conducted while operating on an instrument flight plan.

#### **INTEGRATED NOISE MODEL (INM)**

**INTEGRATED NOISE MODEL (INM)** - The primary FAA sponsored noise model. This is a Windows-based model that produces noise contours and a variety of other noise data outputs pertinent to the development of airport noise impact assessments.

**INTERMODAL** - Refers to the means of changing modes of transportation such as airplane to road or rail.

#### **INTERMODEL SURFACE TRANSPORTATION AND EFFICIENCY ACT (ISTEA)**

**ITINERANT OPERATION** - All aircraft arrivals and departures other than local operations.

### **J**

**JET ROUTES** - See High Altitude Airways.

**JET PORT** – An airport designed to handle jet airplanes.

**JETWAYS (JET ROUTES)** – An air route designed for aircraft operating at altitudes from 18,000 feet to 45,000 feet. These routes comprise the high altitude airway system. The name jetway is derived from the fact that most aircraft utilizing these routes are jet powered.

**JOINT AUTOMATED CAPITAL IMPROVEMENT PLAN (JACIP)** – A coordinated process between the FDOT and the FAA to plan airport capital improvements and expenditures on a short and long-term basis. The JACIP process has been designed as an ongoing and interactive process by which airports, the FAA and the FDOT can develop a realistic plan of staged capital improvements at each facility.

#### **JOINT PARTICIPATION AGREEMENT (JPA)**

### **L**

**LANDING DIRECTION INDICATOR** - A device that visually indicates the direction in which landings and takeoffs should be made.

**LANDING DISTANCE AVAILABLE (LDA)** - The runway length declared available and suitable for landing (see Declared Distances).

**LANDING MINIMUMS/IFR LANDING MINIMUMS** - The minimum visibility prescribed for landing while using an instrument approach procedure.

**LARGE AIRCRAFT** – A large aircraft is an aircraft of more than 12,500 pounds (5,700 kg) for its maximum certificated takeoff weight.

**(Ldn) SYMBOL FOR DAY-NIGHT AVERAGE SOUND LEVEL**

**LEAD-IN LIGHTS (LDIN)**

**(Leq) EQUIVALENT SOUND LEVEL**

**LINEAR FEET (LF)**

**LOCAL OPERATIONS** - Operations performed by aircraft which:

- a) Operate in the local traffic pattern or within sight of the tower;
- b) Are known to be departing for or arriving from flight in a local practice area located within a 20-mile radius of the control tower; or
- c) Execute simulated instrument approaches or low passes at the airport.

**LOCALIZER (LOC)** – A ground based radio transmitter which provides pilots with course guidance as they approach a runway for landing utilizing an Instrument Landing System. The course guidance is known as “azimuth”.

**LOCALIZER TYPE DIRECTIONAL AID (LDA)** – A facility of comparable utility and accuracy to a localizer but which is not part of a complete ILS and will not be aligned with the runway.

**LOM** - Compass locator at an outer marker (part of an ILS). Also, called COMLO.

**LONG HAUL AIRPORT** - Commercial service airports that serve scheduled trips longer than 1,500 miles.

**LOW ALTITUDE AIRWAYS** - Air routes below 18,000 feet MSL. These are referred to as Victor Airways.

**LOW IMPACT RESISTANT SUPPORTS (LIRS)**

**LOW INTENSITY RUNWAY EDGE LIGHTING (LIRL)**

**LOW LEAD (LL)**

## M

**MALSF** - MALS with sequenced flashing lights.

**MALSR** - MALS with runway alignment indicator lights (RAILs).

**MARKER BEACON** - A VFR navigational aid that transmits a narrow directional beam. It is associated with an airway or instrument approach.

**MARKER BEACON** – An instrument which provides aural and/or visual identification of a specific position along an Instrument Landing System approach to a runway.

**MASTER PLAN** - Long-range plan of airport development requirements.

**MAXIMUM CERTIFICATED TAKEOFF WEIGHT (MCTW)**

**MAXIMUM GROSS WEIGHT (MGW)**

**MEAN SEA LEVEL (MSL)**

**MEDIUM HAUL AIRPORT** - Commercial service airports that serve scheduled trips between 500 and 1,500 miles.

**MEDIUM (INTENSITY) APPROACH LIGHT SYSTEM (MALS)** – An airport approach light system of medium intensity.

**MEDIUM INTENSITY RUNWAY EDGE LIGHTING (MIRL)** – An airport runway lighting system of medium intensity.

**MEDIUM INTENSITY TAXIWAY EDGE LIGHTING (MITL)**

**MICROWAVE LANDING SYSTEM (MLS)** - An instrument landing system operating in the microwave spectrum, which provides lateral and vertical guidance to aircraft having compatible avionics equipment.

**MICROWAVE LANDING SYSTEM (MLS)** – A type of instrument approach system which uses different radio signals than an ILS. MLS is more flexible and is less susceptible to interference. MLS is very rare due to its high cost.

**MIDDLE MARKER (MM)** - Part of an ILS that defines a point along the glide slope normally at or near the point of decision height (DH).

**MILITARY OPERATION** - All arrivals and departures by aircraft not classified as civil (civilian).

**MILITARY OPERATIONS AREA (MOA)**

**MINIMUM CROSSING ALTITUDES (MCA)** – The lowest altitudes at certain radio fixes at which an aircraft can cross when proceeding in the direction of a higher minimum en route IFR altitude.

**MINIMUM DESCENT ALTITUDE (MDA)** - The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circling-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided.

**MINIMUM OBSTRUCTION CLEARANCE ALTITUDE (MOCA)** - The specified altitude in effect between radio fixes on VOR/LF airways, off-airway routes, or route segments, which meets obstruction clearance requirements for the entire route segment and which assures acceptable navigational signal coverage only within 22 nautical miles of a VOR.

**MINIMUM VECTORING ALTITUDE (MVA)** – The lowest altitude at which aircraft will be guided by a radar controller. This altitude ensures communications, radar coverage, and meets obstruction clearance criteria.

**MISSED APPROACH** - A prescribed procedure to be followed by aircraft that cannot complete an attempted landing at an airport.

**MOVEMENT** - Synonymous with the term operation, i.e., a takeoff or a landing.

**MOVEMENT AREA** – The runways, taxiways, and other areas of an airport which are used for taxiing, takeoff, and landing of aircraft, excluding loading ramps and parking areas.

## N

**NATIONAL AIRSPACE SYSTEM (NAS<sub>1</sub>)** - The common system of air navigation and air traffic control communications facilities, air navigation facilities, airways, controlled airspace, special use airspace, and flight procedures authorized by Federal Aviation Regulations for domestic and international aviation.

**NATIONAL CLIMATIC DATA CENTER (NCDC)**

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)**

**NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS (NPIAS)**

**NATIONAL TECHNICAL INFORMATION SERVICE (NTIS)**

**NATIONAL WEATHER SERVICE (NWS)**

**NAUTICAL MILE (NM)** – The unit of measure of distance in both nautical and aeronautical context. A nautical mile equals 1.15 statute miles (6,080 feet). The measure of speed in regards to nautical miles is known as *KNOTS* (nautical miles per hour).

**NAVAID** - See Air Navigational Facility.

**NAVAL AIR STATION (NAS<sub>2</sub>)**

**NOISE ABATEMENT** - A procedure for the operation of aircraft at an airport that minimizes the impact of noise on the environs of the airport.

**NOISE COMPATIBILITY PROGRAM (NCP)** - List of actions the airport proprietor proposes to undertake to minimize noise/land use incompatibilities.

**NOISE EXPOSURE FORECAST (NEF)**

**NOISE EXPOSURE MAP (NEM)** - Graphic depiction of both existing and future noise exposure resulting from aircraft operations and land uses in the airport environs.

**NOISE LEVEL REDUCTION (NLF)**

**NOISEMAP** - FAA-approved computer model used to generate noise contours.

**NON-DIRECTIONAL BEACON (NDB)** - A ground station transmitting in all directions in the L/MF frequency spectrum; provides azimuth guidance to aircraft equipped with direction finder receivers. These facilities often have ILS outer markers to provide transition guidance to the ILS system.

**NON-DIRECTIONAL BEACON (NDB)** - A radio beacon transmitting non-directional signals whereby an aircraft equipped with direction finding equipment can determine headings to or from the radio beacon and “home” in on a track to or from it.

**NON-PRECISION APPROACH PROCEDURE/NON-PRECISION APPROACH** - A standard instrument approach procedure in which no electronic glideslope is provided. A localizer, NDB, or VOR is often used.

**NON-PRECISION INSTRUMENT RUNWAY** - A non-precision instrument runway is one with an instrument approach procedure utilizing air navigation facilities, with only horizontal guidance, or area-type navigation equipment for which a straight in non-precision instrument approach procedure has been approved or planned, and no precision approach facility or procedure is planned or indicated on an FAA or DOD approved Airport Layout Plan, or on other FAA or DOD planning documents.

**NORTH AMERICAN DATUM (NAD)** - A mathematical model of North America that allows the making of “flat” maps that represent curved surfaces.

**NOTICE TO AIRMEN (NOTAM)** - A notice essential to personnel concerned with flight operations containing information (not known sufficiently in advance to publicize by other means) concerning the establishment of, conditions of, or change in any component (facility, service, or procedure, or hazard in the National Airspace System).

**NOTICE TO AIRMEN (NOTAM)** – A notice identified either as a NOTAM or an Airmen Advisory containing information concerning the establishment, condition, or change in any component of, or hazard in, the National Airspace System, the timely knowledge of which is essential to personnel concerned with flight operations.

- 1) *NOTAM*: A notice to Airmen in message form requiring expeditious and wide dissemination by telecommunications means.
- 2) *AIRMEN ADVISORY*: A Notice to Airmen normally only given local dissemination, during pre-flight or in-flight briefing, or otherwise during contact with pilots.

**NP** - Non-Precision Instrument runway marking.

## O

**OBJECT FREE AREA (OFA)** - A two dimensional ground area surrounding runways, taxiways, and taxilanes, which is clear of objects except for those objects whose location are fixed by function.

**OBSTACLE FREE ZONE (OFZ)** - The airspace defined by the runway OFZ and, as appropriate, the inner-approach OFZ and the inner-transitional OFZ, which is clear of object penetrations other than frangible NAVAIDs.

**OBSTACLE FREE ZONE (OFZ)** – An OFZ is an area comprised of the runway OFZ, the approach OFZ, and the inner-transitional surface OFZ.

*(A) Runway OFZ:* The runway OFZ is the volume of space above a surface longitudinally centered on the runway. The elevation of any point on the surface is the same as the elevation of the nearest point on the runway centerline. The runway OFZ extends 200 feet (60 m) beyond each end of the runway and its width is:

- 1) 120 feet (36 m) for visual runways serving or expected to serve only small airplanes with approach speeds less than 50 knots.
- 2) 250 feet (75 m) for non-precision instrument and visual runways serving or expected to serve small airplanes with approach speeds of 50 knots or more and no large airplanes.
- 3) 300 feet (90 m) for precision instrument runways serving or expected to serve only small airplanes.
- 4) 180 feet (54 m), plus the wingspan of the most demanding airplane, plus 20 feet (6 m) per 1,000 feet (300 m) or airport elevation; or, 400 feet (120 m), whichever is greater, for runways serving or expected to serve large airplanes.

*(B) Approach OFZ:* The approach OFZ is the volume of space above a surface which has the same width as the runway OFZ and rises at a slope of 50 (horizontal) to 1 (vertical) away from the runway into the approach area. It begins 200 feet (60 m) from the runway threshold at the same elevation as the runway threshold and it extends 200 feet (60 m) beyond the last light unit in the approach lighting system. The approach OFZ applies only to runways with an approach lighting system.

*(C) Inner-Transitional Surface OFZ:* The inner-transitional surface OFZ is the volume or space above the surfaces which slope 3 (horizontal) to 1 (vertical) laterally from the edges of the runway.

- 1) OFZ and approach OFZ end at the height of 150 feet (45 m) above the established airport elevation. The inner-transitional surface OFZ applies only to precision instrument runways.
- 2) Free of all fixed objects. FAA approved frangible equipment which provides an essential aviation service may be located in the OFZ, provided the amount of penetration is kept to a practical minimum.
- 3) Clear of vehicles as well as parked, holding, or taxiing aircraft in the proximity of an airplane conducting an approach, missed approach, landing, takeoff or departure.

**OBSTRUCTION** - Any object/obstacle exceeding the obstruction standards specified by FAR Part 77.

**OBSTRUCTION CHART (OC)**

**OBSTRUCTION LIGHT** - A light, usually red or white, frequently mounted on a surface structure or natural terrain to warn pilots of the presence of an obstruction.

**OBSTRUCTION TO AIR NAVIGATION** – An existing object, including a mobile object, is, and a future object would be, an obstruction to air navigation if it is of a greater height than any of the heights or surfaces defined in FAR PART 77.23.

**OFFICIAL AIRLINE GUIDE (OAG)**

**OMNI-DIRECTIONAL APPROACH LIGHTING SYSTEM (ODALS)**

**OPERATION** - An aircraft arrival (landing) or departure (takeoff).

**OPERATION** – Generally thought of as either a take-off or a landing of an aircraft. FAA ATCT operations include all radio contacts with an aircraft, regardless of whether or not they are taking off or landing. Operations used for planning purposes include only takeoffs, landings and touch and gos.

**OPERATIONS PER BASED AIRCRAFT (OPBA)**

**ORIGINATION AND DESTINATION (O & D)**

**OUTER FIX** - A point in the destination terminal area from which aircraft are cleared to the approach fix or final approach course.

**OUTER FIX** – A fix in the destination terminal area, other than the approach fix, to which aircraft are normally cleared by an air route traffic control center or an approach control facility, and from which aircraft are cleared to the approach fix or final approach course.

**OUTER MARKER (OM)** - A marker beacon, which is part of an ILS, located at or near the glide slope intercept altitude of an ILS approach.

**P**

**P** - Precision Instrument runway marking.

**PRACTICAL ANNUAL CAPACITY (PANCAP)** – The practical annual capacity of an airport based, based on the runway(s).

**PRACTICAL HOURLY CAPACITY (PHOCAP)** – The practical hourly capacity of an airport based, based on the runway(s).

**PRECISION APPROACH** - A standard approach in which an electronic glide slope is provided.

**PRECISION APPROACH PATH INDICATOR (PAPI)** – An airport approach light aid to pilots. See GVGL.

**PRECISION APPROACH RADAR (PAR)** – Radar used by air traffic control specialists in a ground-controlled approach to assist a pilot on final approach down a prescribed path leading to the runway.

**PRECISION INSTRUMENT RUNWAY** – A precision instrument runway is one with an instrument approach procedure utilizing an Instrument Landing System (ILS), microwave landing system (MLS), or precision approach radar (PAR). A planned precision instrument runway is one for which a precision approach system or procedure is indicated on an FAA or DOD approved airport layout plan, or on other FAA or DOD planning documents.

**PRIMARY RADAR** – Primary Radar occurs when the original radar pulse generated by the ground station (air traffic control) returns to the same ground station after it “bounces” off of an object (aircraft). This return notifies the controller that an aircraft is present as well as where it is and in which direction it is moving. This return cannot tell a controller the altitude of the aircraft.

**PRIMARY SURFACE** – An imaginary horizontal surface extending out an equal distance on each side of the runway centerline a width as defined in FAR Part 77.

**PRIVATE AIRPORT** - A privately owned airport closed to the general public.

**PRIVATE PILOT** – A licensed pilot authorized to fly an aircraft carrying passengers provided he does not receive compensation.

**PROHIBITED AREA** - A category of special use airspace of defined dimensions identified by an area from the surface of the earth to a specified altitude where all flight activity is prohibited, e.g. the White House.

**PUBLIC USE AIRPORT** - A publicly or privately owned airport open to the public without advanced permission.

## R

### **RADAR APPROACH CONTROL CENTER (RAPCON)**

**RADAR BEACON (SECONDARY RADAR)** – A radar system in which the object to be detected is fitted with cooperative equipment in the form of a radio receiver/transmitter (transponder). Radio pulses transmitted from the ground based searching transmitter/receiver interrogator (air traffic control radar) site are received in the cooperative equipment and used to trigger a distinctive transmission. This transmission, not a reflected signal, is then received back at the interrogator site in order to track the aircraft and determine its altitude.

**RADAR IDENTIFICATION** – The process of ascertaining that a radar target is the radar return from a particular aircraft.

**RADAR NAVIGATION (RNAV)**

**RADAR (RADIO DETECTION AND RANGING)** – A device which, by measuring the time interval between transmission and reception of radio pulses, provides information on range, azimuth and/or elevation of objects in the path of the transmitted pulses.

**RADAR SERVICE** – A term which encompasses aircraft separation, navigation guidance, and/or flight track monitoring services based on the use of radar which can be provided by a controller to a pilot of a radar-identified aircraft.

**RADAR SURVEILLANCE** - The radar observation of a given geographic area for the purpose of performing some radar function.

**RADAR VECTOR** – A heading issued to an aircraft by air traffic control to provide navigational guidance based upon radar observations.

**RADIAL** – A magnetic bearing extending from a VOR, a VORTAC, or a TACAN navigational facility.

**RANDOM AREA NAVIGATION ROUTE** – Direct flight, based on area navigation capability, between waypoints defined in terms of degree distance fixes or offset from published or established routes/airways at a specified distance and direction.

**REGIONAL AIRPORT SYSTEM PLAN (RASP)**

**RELIEVER AIRPORT** - A specially designated general aviation airport that reduces congestion at busy commercial service airports by providing alternate landing areas for business aircraft.

**RELIEVER AIRPORT** - An airport designated as having the primary function of relieving congestion at a commercial airport and providing more general aviation access to the overall community. Reliever Airports are allowed to receive AIP (federal) funds for improvement.

**RELOCATED THRESHOLD** - The portion of pavement behind a relocated threshold is not available for takeoff or landing. It may be available for taxiing aircraft.

**RELOCATED THRESHOLD** – A relocated threshold is a permanent threshold located at the relocated runway end.

**REMOTE COMMUNICATIONS OUTLET (RCO)** - An unmanned communications facility remotely controlled by air traffic personnel. RCO's serve FSSs. RTRs serve terminal ATC facilities. An RCO or RTR may be UHF or VHF and will extend the communication range of the air traffic facility. There are several classes of RCOs and RTRs. The class is determined by the number of transmitters or receivers. Classes A through G are used primarily for air/ground purposes. RCO and RTR class O facilities are non protected outlets subject to undetected and prolonged outages. RCOs and RTRs were established for the express purpose of providing ground-to ground communications between air traffic control specialists and

pilots at a satellite airport delivering en route clearances, issuing departure authorizations, and acknowledging instrument flight rules cancellations or departure/landing times. They may also be used for advisory purposes whenever the aircraft is below the coverage of the primary air/ground frequency.

**RESTRICTED AREAS** - A category of special use airspace of defined dimensions identified by an area from the surface of the earth to a specified altitude within which the flight of aircraft, while not wholly prohibited, is subject to restrictions.

### **REQUEST FOR PROPOSALS (RFP)**

**ROTATING BEACON** - A visual NAVAID flashing white and/or colored light to indicate the location of an airport.

**RUNUP** – A part of the final checkout of the aircraft just before takeoff where the engine (or engines) is revved to a percentage of maximum power. During this exercise, all airplane systems are checked to make a final determination of whether or not the aircraft is fit for safe flight.

**RUNWAY (RW, R/W AND RWY)** – A runway is a defined rectangular area on an airport prepared for the landing or takeoff of airplanes.

**RUNWAY ALIGNMENT INDICATOR LIGHTS (RAIL)** – (usually part of a MALS system).

**RUNWAY END IDENTIFIER LIGHTS (REIL)** – Flashing strobe lights (usually white) which indicate the end of a runway. They are located at each end of the runway.

### **RUNWAY OBJECT FREE AREA (ROFA)**

**RUNWAY PROTECTION ZONE (RPZ)** - An area of the runway end (formerly the clear zone) used to enhance the protection of people and property on the ground.

**RUNWAY PROTECTION ZONE (RPZ)** – A trapezoidal area centered about the extended runway centerline beginning 200 feet beyond the end of the area usable for takeoff or landing. The dimensions are a function of the approach visibility minimum and the type of aircraft. Refer to AC 150/5300-13 for specific dimensions and land use guidelines.

**RUNWAY REFERENCE POINT (RRP)** – The point on the runway where the effective visual glide slope intercepts the runway surface.

**RUNWAY SAFETY AREA (RSA)** - A 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 SAFETY AREA (RSA)** – A runway safety area is a rectangular area, centered on the runway centerline, which includes the runway (and stopway, if present) and the runway shoulders. The portion abutting the edge of the runway shoulders, runway ends, and stopways is cleared, drained, graded and usually turfed. Under normal conditions, the runway safety area is capable of supporting snow removal,

firefighting, and rescue equipment and accommodating the occasional passage of aircraft without causing major damage to the aircraft.

**RUNWAY VISIBILITY RANGE (RVR)** – An instrumentally derived value, based on standard calibrations, that represents the horizontal distance a pilot will see down the runway from the approach end.

## S

**SAFETY AREA** – An actual graded area surrounding the runway that can be safely negotiated in case of an emergency by an aircraft that will be using that runway.

**SEAPLANE BASE** - A body of water licensed for operation and basing of seaplanes.

**SEGMENTED CIRCLE** - An aid identifying the traffic pattern direction.

**SEPARATION** – Spacing of aircraft to achieve their safe and orderly movement in flight and while landing and taking off.

**SEPARATION MINIMA** - The minimum longitudinal, lateral, or vertical distances by which aircraft are spaced through the application of air traffic control procedures.

### **SHORT APPROACH LIGHT SYSTEM (SALS)**

**SHORT HAUL AIRPORT** - Commercial service airports that service scheduled trips for less than 500 miles.

**SHORT TAKEOFF AND LANDING (STOL) RUNWAY** – A runway specifically designated and marked for STOL operations. Except for the standards for locating thresholds, specified in appendix 9, and for marking and lighting, STOL runways are designed and maintained to the standards and recommendations applicable to conventional takeoff and landing airplanes.

### **SIMPLIFIED SHORT APPROACH LIGHT SYSTEM (SSALS)**

**SIMPLIFIED SHORT APPROACH LIGHT SYSTEM WITH SEQUENCED FLASHING LIGHTS (SSALF)**

### **SINGLE-EVENT NOISE EXPOSURE LEVEL (SENEL)**

**SMALL AIRCRAFT** – A small aircraft is an aircraft of 12,500 pounds (5,700 kg) or less maximum certificated takeoff weight.

### **SOUND EXPOSURE LEVEL (SEL)**

### **SQUARE FEET (SF)**

**STANDARD INSTRUMENT DEPARTURE (SID)** – A preplanned coded air traffic control IFR departure routing, preprinted for pilot use in graphic and/or written form.

**STANDARD METROPOLITAN STATISTICAL AREA (SMSA)**

**STANDARD TERMINAL ARRIVAL ROUTE (STAR)** – A preplanned coded air traffic control IFR arrival routing, preprinted for pilot use in graphic and/or written form.

**STATUTE MILE** – A regular “highway” mile measuring 5,280 feet.

**STOL AIRCRAFT** - A STOL (short takeoff and landing) aircraft is an aircraft with a certified performance capability to execute approaches along a glide slope of 6 degree or steeper and to execute missed approaches at a climb gradient sufficient to clear a 15:1 missed approach surface at sea level. The gradient is based on the airport elevation and decreases at the rate of 5 percent per 1,000 feet (300 m), i.e., for an airport at 4,000 feet (1,200 m) above Mean Sea Level (MSL), the gradient of the missed approach surface would be 18:1, 120 percent of 15:1.

**STOP END OF RUNWAY** – The stop end of runway is the far runway end as viewed from the cockpit of a landing airplane.

**STOPWAY (SWY)** - A rectangular surface beyond the end of a runway prepared or suitable for use in lieu of a runway to support an aborted takeoff, without causing structural damage to the airplane.

**STOPWAY (SWY)** – A stopway is an area beyond the stop end of the takeoff runway which is no less wide than the runway and is centered on the extended centerline of the runway. It is able to support an 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.

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

**STRAIGHT-IN APPROACH** - A descent in an approved procedure in which the final approach course alignment and descent gradient permit authorization of straight-in landing minimums.

**STRAIGHT-IN APPROACH** – Entry into the traffic pattern by interception of the extended runway centerline (final approach) without executing any other portion of the traffic pattern.

**STUDY ADVISORY COMMITTEE (SAC)**

**SUPPLEMENTARY AVIATION WEATHER REPORTING STATIONS (SAWRS)** – A weather observation station used solely for aviation purposes and manned by non-Federal personnel. The local airport management usually provides the equipment and personnel for the station.

**SURFACE ACCESS** - Ground transportation modes, such as auto or public transit, used to travel to and from the airport.

**SURVEILLANCE APPROACH** – An instrument approach conducted in accordance with directions issued by a controller referring to the surveillance radar display.



**SYSTEM PLAN** - A representation of the aviation facilities required to meet the immediate and future air transportation needs and to achieve the overall goals.

## T

**TACTICAL AIR NAVIGATION (TACAN)** – A military navigation aid that provides distance and direction information to appropriately equipped aircraft. Derived from “tactical air navigation”.

### **TACTICAL AIRLIFT GROUP (TAG)**

**TAKEOFF DISTANCE AVAILABLE (TODA)** - The TORA plus the length of any remaining runway and/or clearway beyond the far end of the TORA (see Declared Distances).

**TAKEOFF RUNWAY AVAILABLE (TORA)** - The runway length declared available and suitable for the ground run of an airplane taking off (see Declared Distances).

**TAXI** – To operate an airplane under its own power on the ground, except the movement incident to actual takeoff and landing.

**TAXILANE (TL)** – A taxilane is the portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, storage facilities, etc. A taxilane is outside the movement area, and is normally not controlled by the Air Traffic Control Tower.

**TAXIWAY (TW, TWY, AND T/W)** – A taxiway is a defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft.

**TAXIWAY SAFETY AREA (TSA)** – A taxiway safety area is an area centered on the taxiway centerline, which includes the taxiway and taxiway shoulders. The portion abutting the edge of the taxiway shoulders is cleared, drained, graded, and usually turfed. Under normal conditions, the taxiway safety area is capable of supporting snow removal, fire fighting, and rescue equipment and accommodating the occasional passage of aircraft without causing major damage to the aircraft.

**TERMINAL AIRSPACE** - The controlled airspace normally associated with aircraft departure and arrival patterns to and from airports within a terminal system and between adjacent terminal systems in which tower en route air traffic control service is provided.

### **TERMINAL AREA FORECAST, FAA’S (TAF)**

### **TERMINAL AREA PLAN (TAP)**

**TERMINAL CONTROL AREA (TCA)** – The aircraft traffic control area surrounding a hub airport in which all aircraft must be under radar control and have radio communications established. This airspace is now known as Class B airspace.

### **TERMINAL INSTRUMENT PROCEDURES (TERPS)**

**TERMINAL RADAR SERVICE AREA (TRSA)** - This area identifies the airspace surrounding an airport wherein air traffic control provides radar vectoring, sequencing, and separation on a full-time basis

for all IFR and participating VFR aircraft. Although pilot participation is urged, it is not mandatory within the TRSA.

### **TERMINAL VERY HIGH FREQUENCY OMNIRANGE RADIO STATION (TVOR)**

**T-HANGAR** - A T-shaped aircraft hangar that provides shelter for a single airplane.

**THRESHOLD** – The threshold is the beginning of that portion of the runway available and suitable for the landing of airplanes.

**THRESHOLD (TH)** - The physical end of runway pavement. (Also see Displaced Threshold and Relocated Threshold.)

**THRESHOLD CROSSING HEIGHT (TCH)** – The height of the straight line extension of the visual or electronic glide slope above the runway threshold.

**TOUCH-AND-GO OPERATION** – A training operation in which a landing approach is made, the aircraft touches down on the runway, but does not fully reduce speed to turn off the runway. Instead, after the landing, full engine power is applied while still rolling and a takeoff is made, thereby practicing both maneuvers as part of one motion. It counts as two separate aircraft operations.

### **TOUCHDOWN ZONE LIGHTS (TDZ)**

**TRACK** – The flight path of an aircraft over the surface of the earth.

**TRAFFIC PATTERN** - The traffic flow that is prescribed for aircraft landing at or taking off from an airport. The usual traffic pattern consists of five segments, or “legs”. These components are the upwind leg, crosswind leg, downwind leg, base leg, and the final approach. Traffic patterns are followed by aircraft in order to exit the airport area after takeoff in an orderly fashion, and to enter an Airport area and ultimately land, also in an orderly fashion.

**TRANSIENT OPERATIONS** - An operation performed at an airport by an aircraft that is based at another airport.

**TRANSITION ZONE** - An imaginary surface extending upward at a 7 to 1 slope (i.e., up one foot for every seven feet moved horizontally) from the Primary Surface and Approach Surface defined in Federal Aviation Regulations (FAR) Part 77.

**TRANSPORT AIRPORT** - Airports that can accommodate high performance aircraft over 150,000 pounds maximum gross weight.

**TRANSPORT AIRPORT** – A transport airport is an airport designed, constructed, and maintained to specifically serve airplanes in Aircraft Approach Category C and D. Please refer to the definition for Aircraft Approach Category. Airports which accommodate Category C and D aircraft on a semi regular basis are not necessarily Transport Airports.

**TRANSPORT CATEGORY AIRCRAFT** - Aircraft with a maximum gross takeoff weight of 12,500 pounds or more.

**TRUE AIR SPEED (TAS)** – The actual speed at which an aircraft is traveling through the air.

**TRUE BEARING (Azimuth)** - The clockwise angle between a direction line and a meridian line that is referenced to the geographic north.

**TURBINE** – A mechanical device or engine that spins in reaction to fluid flow through or over it. This device is used in turbofan, turbojet, and turboprop powered aircraft.

**TURBOFAN** – A turbojet engine whose thrust has been increased by the addition of a low pressure compressor fan.

**TURBOJET** - An engine that derives power from a fanned wheel spinning in reaction to burning gases escaping from a combustion chamber. The turbine in turn drives a compressor and other accessories.

**TURBOPROP** - A turbine engine in which the rotating turbine turns a propeller.

## U

### ULTRA HIGH FREQUENCY (UHF)

**UNCONTROLLED AIRSPACE** - Airspace that has not been designated as Continental Control Area, control area, control zone, terminal control area, or transition area and within which ATC has neither the authority nor the responsibility for exercising control over air traffic.

**UNICOM** - Radio communications station that provides pilots with pertinent information (winds, weather, etc.) at specific airports.

### UNITED STATES GEOLOGICAL SERVICE (USGS)

### UNITED STATES WEATHER BUREAU (USWB)

**USEFUL LOAD** – In aircraft, the difference between the empty weight of the plane and the maximum authorized gross weight.

**UTILITY AIRPORT** – A utility airport is an airport designed, constructed, and maintained to serve airplanes in Aircraft Approach Category A and B. For discussion on airport type, see paragraph 5.

## V

**V** - Visual Approach runway marking.

**V<sub>1</sub>**- Takeoff Decision Speed.

**V<sub>2</sub>** - Takeoff Safety Speed.

**V<sub>LOF</sub>** - Lift-off Speed.

**V<sub>so</sub>** - Stalling Speed or the minimum steady flight speed in the landing configuration.

**VECTOR** - A heading issued to an aircraft to provide navigational guidance by radar.

#### **VERTICAL/SHORT TAKEOFF AND LANDING (V/STOL)**

**VERTICAL TAKEOFF AND LANDING (AIRCRAFT) (VTOL)** – An aircraft which has the capability of vertical takeoff and landing. These aircraft include, but are not limited to, helicopters.

#### **VERY HIGH FREQUENCY (VHF)**

**VERY HIGH FREQUENCY OMNI DIRECTIONAL RANGE (VOR)** – A ground radio station that provides a pilot of a properly equipped aircraft with his radial location in reference to that station. A VORTAC is an electronic air navigation facility combining a VOR and a TACAN.

**VFR AIRCRAFT** - An aircraft conducting flight in accordance with Visual Flight Rules.

**VFR CONDITIONS** – Basic weather conditions prescribed for flight under Visual Flight Rules; usually implies a ceiling of at least 1000 feet and a forward visibility of three miles or more.

**VFR TRAFFIC** – Aircraft traffic operated solely in accordance with Visual Flight Rules.

**VICTOR AIRWAYS** - See Low Altitude Airways.

**VICTOR AIRWAYS** – Established air routes connecting most VORs in the United States. The victor airways comprise the low altitude (up to but not including 18,000 feet) airway system. (Jetways comprise the high altitude airway system).

**VISIBILITY, PREVAILING** – The horizontal distance at which targets of known distance are visible over at least half of the horizon. It is normally determined by an observer on or close to the ground viewing buildings or other similar objects during the day and ordinary city lights at night.

**VISUAL APPROACH** – A VFR approach granted to an IFR flight by air traffic control under special circumstances. Visual approaches are normally conducted by aircraft operating under visual flight rules.

**VISUAL APPROACH SLOPE INDICATOR (VASI)** – The VASI is a device used by pilots to determine their position in regard to the recommended approach path for a particular airport. See also GVGI.

**VISUAL FLIGHT RULES (VFR)** - Visual Flight Rules that govern flight procedures in good weather.

**VISUAL FLIGHT RULES (VFR)** – “See and be seen” flight rules. Each pilot is responsible for the safe spacing and proper operation of his aircraft. Under VFR, a pilot is not required to file a flight plan or be in constant radar and communication contact with air traffic control. Visual flight rules are determined by weather and require a ceiling of at least 1,000 feet and visibility of at least 3 miles.

**VISUAL RUNWAY** - A visual runway is a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA or Department of Defense (DOD) approved layout plan, or, on other FAA or DOD planning documents.

**VORDME** - VOR facility supplemented with Distance Measuring Equipment (DME).

**VORTAC** - VOR facility supplemented with Tactical Air Navigation (TACAN).

**VORTAC** – A combination of the civil VOR/DME and the military TACAN which can provide both distance and direction of an aircraft from the station.

## W

**WAKE TURBULENCE** – The air turbulence caused by a moving aircraft, originating at the tips of the wings. The turbulence is caused by vortices generated by an aircraft’s wingtips as it travels through the air. This turbulence is greatest when the aircraft is taking off and landing.

**WARNING AREA** - A category of special use airspace of defined dimensions identified by an area from the surface of the earth to a specified altitude, which exists in international airspace along the U.S. coastal borders.

### **WATER MANAGEMENT DISTRICT (WMD)**

**WIND-CONE (WIND SOCK)** - Conical wind direction indicator.

**WIND COVERAGE** – Wind coverage is the percent of time for which aeronautical operations are considered safe due to acceptable crosswind components.

**WIND ROSE** - A graphic documenting the wind persistency and wind coverage provided by the runway system.

**WIND TEE** - A visual device used to advise pilots about wind direction at an airport.