

APPENDIX A

Terms and Acronyms



**DELTA AIRPORT
CONSULTANTS, INC.**

1805 Sardis Road North, Suite 101 ♦ Charlotte, North Carolina 28270
Phone: (704) 521-9101 ♦ Fax: (704) 521-9109 ♦ www.deltaairport.com

LIST OF ACRONYMS AND GLOSSARY

AC	Advisory Circular
ACCRI	Aviation Climate Change Research Initiative
ACIP	Airport Capital Improvement Plan
ACRP	Airport Cooperative Research Program
AIP	Airports Improvement Program
ALP	Airport Layout Plan
ATCT	Air Traffic Control Tower
ADF	Automatic Direction Finder Indicator
APE	Area of Potential Effect
ARFF	Airport Rescue and Fire Fighting
ARC	Airport Reference Code
ARTCC	Air Route Traffic Control Center
AWOS	Automated Weather Observation Station
AZD	Airport Zoning District
BBJ	Boeing Business Jets
BCA	Benefit Cost Analysis
BMP	Best Management Practice
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CIP	Capital Improvement Plan
CO	Carbon Monoxide
CWA	Clean Water Act
dBA	A-weighted Decibels
DEQ	Department of Environmental Quality
DNL	Day-night Average Noise Levels
DOD	Department of Defense



DOT	Department of Transportation
EA	Environmental Assessment
E&SC	Erosion and Sediment Control
EDMS	Emissions and Dispersion Modeling System
EPA	Environmental Protection Agency
EV	Exceptional Value Waters
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FBO	Fixed Base Operator
FCI	Chesterfield County Airport
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
GA	General Aviation
GAO	U.S. General Accounting Office
GPS	Global Navigation Satellite System
GSE	Ground Service Equipment
HIRL	High-Intensity Runway Lighting
HQ	High-Quality Waters
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
INM	Integrated Noise Model
MALS	Medium-Intensity Approach Lighting System
MALSF	Medium-Intensity Approach Lighting System with Sequenced Flashing Lights
MALSR	Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights
MIRL	Medium Intensity Runway Lights



MITL	Medium Intensity Taxiway Lights
MOS	Modification of Airport Design Standards
MP	Master Plan
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NAVAIDs	Navigational Aids
NDB	Non-directional Radio Beacon
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NO ₂	Nitrogen Dioxide
NPIAS	National Plan of Integrated Airport Systems
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	Ozone
OAQPS	Office of Air Quality Planning and Standards
O&D	Origin and Destination
ODAL	Omni Directional Approach Lighting System
OFA	Object Free Area
PAPI	Precision Approach Path Indicator
PARTNER	Partnership for AiR Transportation Noise & Emissions Reduction
Pb	Lead
PM	Particulate Matter
REILS	Runway End Identifier Lights
RCRA	Resource Conservation and Recovery Act
RPZ	Runway Protection Zone
RSA	Runway Safety Area
S.R.	State Route
SHPO	State Historic Preservation Office



SO ₂	Sulfur Dioxide
TAF	Terminal Area Forecast
TRB	Transportation Research Board
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	United States Department of the Interior Geological Survey
VFR	Visual Flight Rule
VOC	Volatile Organic Compounds
VOR/DME	Very High Frequency Omni Range Station with Distance Measuring Equipment



GLOSSARY

A

A-Weighted Sound Level (dBA):-The ear does not respond equally to sound frequencies. It is less efficient at low and high frequencies than it is at medium or speech-range frequencies. Thus, to obtain a single number representing the sound level of a noise having a wide range of frequencies in a manner representative of the ear's response, it is necessary to reduce the effects of the low and high frequencies with respect to the medium frequencies. The resultant sound level is said to be A-weighted, and the units are decibels (dB); hence, the abbreviation is dBA. The A-weighted sound level is also called the noise level. Sound level meters have an A-weighting network for measuring A-weighted sound level.

Access Taxiway: A taxiway that provides access to a particular location or area.

Active Based Aircraft: Aircraft that have a current airworthiness certificate and are based at an airport.

Actual Runway Length: The length of full width, usable runway from end to end or full strength pavement where those runways are paved.

Administration Building: A building or buildings accommodating airport administration activity and public facilities for itinerant and local flying, usually associated with general aviation fixed base operations.

Administration Space: The space including, but not limited to, space for offices, cafeterias, conference rooms,

lobbies, waiting rooms, garages, parking lots.

Advisory Circular: A series of FAA publications consisting of all nonregulatory material of a policy, guidance, and informational nature.

Aeronautical Chart: A map representing a portion of the earth, made especially for use in air navigation.

Air Cargo: All commercial air express and air freight except air mail and air parcel post.

Air Carrier Airport: An airport (or runway) designated by design and/or use for air carrier operations.

Air Carrier – All Cargo: A certificated route air carrier authorized to perform scheduled air freight, express, and mail transportation service as well as the conduct of nonscheduled operations (which may include passengers over specified routes).

Air Carrier – Certificated Route: An air carrier holding a Certificate of Public Convenience and Necessity issued to conduct scheduled services over specified routes and a limited number of nonscheduled operations.

Air Carrier – Commuter: An air taxi operator which: (1) performs at least five round trips per week between two or more points and publishes flight schedules that specify the times, days of the week, and places between which such flights are performed; or (2) transports mail by air under a current contract with the U.S. Postal Service.



GLOSSARY

Air Carrier – Intrastate: An air carrier licensed by a state to operate wholly within its borders but not permitted to carry interline passengers from out of state.

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.

Aircraft Design Group (ADG): A grouping of airplanes based on wingspan.

Aircraft Operations: The airborne movement (landing or taking off) of aircraft. There are two types of operations – local and itinerant.

1. Local operations are performed by aircraft that:

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

2. Itinerant operations are all aircraft operations other than local operations.

Aircraft Rescue And Fire Fighting (ARFF): The aircraft rescue and fire fighting capability required at airports under Federal Aviation Regulations (FAR) Part 139.

Aircraft Tiedown: Positions on the ground surface that are available for securing aircraft.

Airfield Capacity (Hourly): The maximum number of aircraft operations (landings or

takeoffs) that can take place on an airfield in one hour under specific conditions.

Air Freight: A system or service set up for the carrying of freight by air.

Airman’s Meteorological Information (AIRMET): An in-flight weather advisory concerning weather phenomena of less severity than that covered by SIGMETs, which are potentially hazardous to certain aircraft, e.g., those having limited equipment, instrumentation, or pilot qualifications. These advisories cover moderate icing and turbulence, winds of 40 knots or more within 2,000 feet of the surface, and the initial onset of visibilities less than 2 miles or ceilings less than 1,000 feet.

Air Navigation Facility (NAVAID): Any facility used or designed for use as an aid to air navigation.

Airport: An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, including its buildings and facilities. (FAR Part 1)

Airport Advisory Service (AAS): A service provided by flight service stations at airports not served by a control tower. This service consists of providing information to landing and departing aircraft concerning wind direction and velocity, favored runway, altimeter setting, pertinent known traffic, pertinent known field conditions, airport taxi routes and traffic patterns, and authorized instrument approach procedures.

Airport Beacon: A navigational aid emitting alternating white and green flashes to indicate a lighted airport or white flashes only for an unlighted airport.



GLOSSARY

Airport Elevation: The highest point on an airport's usable runways expressed in feet above mean sea level (MSL).

Airport Environs: The area surrounding an airport that is considered to be directly affected by the presence and operation of the airport.

Airport Imaginary Surfaces: Imaginary surfaces established at an airport for obstruction determination purposes.

Airport Improvement Program (AIP): A program administered by the Federal Aviation Administration to provide financial grants-in-aid for airport planning, airport development projects, and noise compatibility programs. The program was established through the Airport and Airway Improvement Act of 1982, which was incorporated as Title V of the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248).

Airport Land Use Plan: A generalized plan depicting proposed land uses within the airport boundary. The land use plan is a required element of an airport master plan.

Airport Layout Plan (ALP): The plan for an airport showing the layout of existing and proposed airport facilities and structures.

Airport Master Plan: Appropriate documents and drawings concerning the development of a specific airport from a physical, economic, social, and political jurisdictional perspective. The airport layout plan is a part of this plan.

Airport Operation: A landing or a takeoff at an airport. (A low approach below traffic pattern altitude or a touch-and-go operation

are counted as both a landing and a takeoff; i.e., two operations.)

Airport Reference Point (ARP): The airport reference point is the latitude and longitude of a point that is the approximate center of all existing and proposed landing and takeoff areas.

Airport Sponsor: A public agency or tax-supported organization, such as an airport authority, that is authorized to own and operate an airport, obtain property interests, obtain funds, and be legally, financially, and otherwise able to meet all applicable requirements of current laws and regulations.

Airport System Planning: The development of information and guidance to determine the extent, type, nature, location, and timing of airport development needed to establish a viable and balanced system of public airports.

Airports Closed to the Public: An airport not available to the public without permission from the owner.

Airports Open to the Public: An airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

Air Route: Navigable airspace between two points which is identifiable.

Air Route Surveillance Radar (ASR): A remote radar facility connected to an air route traffic control center and used to detect and display the azimuth and range of enroute aircraft operating between terminal areas, enabling the ATC controller to provide air traffic control services in the air route traffic control system.



GLOSSARY

Air Route Traffic Control Center (ARTCC): A facility that provides air traffic control service to aircraft operating on an IFR flight plan within controlled airspace.

Airspace: Space in the air above the surface of the earth or a particular portion of such space, usually defined by the boundaries of an area on the surface projected upward.

Air Traffic: Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas. (FAR Part 1)

Air Traffic Control (ATC): A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic. (FAR Part 1)

Air Traffic Hub: Air traffic hubs are not airports; they are the cities and Standard Metropolitan Statistical Areas requiring aviation services. Communities fall into four classes as determined by each community's percentage of the total enplaned passengers in scheduled and nonscheduled service of the domestic certificated air carriers in the 50 states, the District of Columbia, and other U.S. areas designed by the Federal Aviation Administration. The four hub types are: "L" (large), "M" (medium), "S" (small), and "N" (non-hub).

Airway: A path through navigable airspace within which air traffic service is provided.

Alignment (Azimuth): The azimuth or actual magnetic bearing of a course.

Alignment (Elevation): The actual angle above a horizontal plane, originating at a specific point of a course used for altitude guidance.

Alternate Airport: An airport where an aircraft may land if a landing at the intended airport becomes inadvisable. (FAR Part 1)

Ambient Noise: The total of all noise in a system or situation, independent of the presence of the specific sound to be measured. In acoustical measurements, strictly speaking, ambient noise means electrical noise in the measurement system. However, in popular usage, ambient noise is also used to mean "background noise" or "residual noise."

Approach Area: The defined area over which landing and takeoff operations are made.

Approach Clearance: Authorization issued by air traffic control to the pilot of an aircraft for an approach for landing under Instrument Flight Rules.

Approach Control Facility: A terminal air traffic control facility (TRACON, CST, RAPCON, RATCF, Tower, etc.) providing approach control service.

Approach Fix: The fix from or over which 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 Lighting System (ALS): An airport lighting facility that emits radiating light beams in a directional pattern by which the pilot aligns the aircraft with the runway on his final approach and landing.



GLOSSARY

Approach Path: A specific flight course laid out in the vicinity of an airport and designed to bring aircraft in to safe landings; usually delineated by navigational aids.

Approach Slope Ratio: The ratio of horizontal to vertical distance indicating the degree of inclination of the approach surface.

Approach Sequence: The order in which aircraft are positioned while awaiting approach clearance or while on approach.

Approach Surface: An imaginary surface longitudinally centered on the extended centerline of the runway, beginning at the end of the primary surface and rising outward and upward to a specified height above the established airport elevation.

Apron: A defined area, on a land airport, intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance.

Area Navigation (RNAV): A method of navigation that permits aircraft operations on any course within the coverage of available navigation signals or within the limits of self-contained system capability. (FAR Part 1)

Area Navigation Low Route: An area navigation route within the airspace extending upward from 1,200 feet above the surface of the earth to, but not including, 18,000 feet MSL. (FAR Part 1)

Area Navigation High Route: An area navigation route within the airspace extending upward from, and including, 18,000 feet MSL to flight level 450. (FAR Part 1)

Automated Radar Terminal Systems (ARTS): Computer-aided radar display capable of associating alphanumeric data with radar returns.

Automatic Direction Finder (ADF): A radio device that uses radio transmissions from ground stations to automatically indicate the bearing of an aircraft in relation to the ground transmitter.

Automatic Terminal Information Service (ATIS): The repetitive transmission of recorded noncontrolling information in selected high-activity terminal areas.

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

Aviation Safety And Noise Abatement Act Of 1979: Public Law 96-193, enacted February 18, 1980. The purpose of the act is to provide assistance to airport sponsors in preparing and carrying out noise compatibility programs and in assuring continued safety for aviation. The act also contains the requirement for certain types of aircraft to comply with FAR Part 36, *Noise Standards: Aircraft Type and Airworthiness Certification*.

B

Base Leg: A flight path in the traffic pattern at right angles to the landing runway off the approach end and extending from the downwind leg of the extended runway centerline.



GLOSSARY

Bearing: The horizontal direction of an object or point, measured as an angle, usually clockwise, from true or magnetic north through 360 degrees.

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

Building Restriction Line (BRL): A line shown on the airport layout plan beyond which airport buildings must not be positioned in order to limit their proximity to aircraft movement areas and impact on airport imaginary surfaces.

Bypass Taxiway: A taxiway located adjacent to an area that accommodates moving or parked aircraft specifically designed to achieve efficient aircraft passing movements.

C

Capital Improvement Program (CIP): A multiyear (sometimes single-year) schedule of capital expenditures for construction or equipment at an airport.

Category II Operations: An aircraft operation using a straight-in ILS approach to the runway of an airport under a Category II ILS instrument approach procedures.

Ceiling: The height above the surface of the earth of the lowest layer of clouds or obscuring phenomena that is reported as "broken," "overcast," or "obscuration."

CEQ (Council On Environmental Quality) Regulations: CEQ Regulations implementing the National Environmental

Policy Act of 1969 (NEPA) were published in the Federal Register on November 29, 1978. References to the Regulations in FAA Order 5050.4A (*Airport Environmental Handbook*) identify a given section, e.g., CEQ 1500 or CEQ 1508.8.

Circling Approach Area: An area in which aircraft circle to land under visual conditions after completing an instrument approach.

Co-Location: Placement of coaxially oriented components such as in a VOR and a TACAN one above the other or a VOR/DME combination.

Compass Calibration Pad: An airport facility for calibrating an aircraft compass.

Conical Surface: A surface extending from the periphery of the horizontal surface outward and upward at a slope of 20:1 as prescribed by FAR Part 77.

Continental Control Area: The airspace of the 48 contiguous states, the District of Columbia, and Alaska, excluding the Alaska peninsula west of Longitude 160 degrees 00' 00" W., at and above 14,500 feet MSL. The area does not include the following:

- a. The airspace less than 1,500 feet above the surface of the earth; or
- b. Prohibited and restricted areas, other than the restricted areas listed in FAR Part 71 Subpart D.

Controlled Airspace: Airspace within which aircraft may be subject to air traffic control.



GLOSSARY

Control Zone: Airspace extending upward from the surface of the earth which may include one or more airports and is normally a circular area of five statute miles in radius with extensions where necessary to include instrument approach and departure paths.

Coverage: The designated volume of airspace within which reliable information is produced by a facility.

Critical Aircraft: In airport design, the aircraft that controls one or more design items such as runway length, pavement strength, lateral separation, etc., for a particular airport. The same aircraft may not be critical to all design items.

Crosswind: A wind blowing across the line of flight of an aircraft.

Crosswind Runway: A runway that provides for wind coverage not adequately provided by the primary runways.

D

Day-Night Average Sound Level (DNL): A method for predicting, by a single number rating, cumulative aircraft noise that affects communities in airport environs. The DNL value represents decibels of noise as measured by an A-weighted sound-level meter. In the DNL procedure, the noise exposure from each aircraft takeoff or landing at ground level around an airport is calculated, and these noise exposures are accumulated for a typical 24-hour period. (The 24-hour period often used is the average day of the peak month for aircraft operations during the year being analyzed.) Daytime and nighttime noise exposures are considered separately. A weighting factor equivalent to a penalty of 10 decibels is applied to operations between 10 p.m. and 7

a.m. to account for the increased sensitivity of people to nighttime noise. The DNL values can be expressed graphically on maps using either contours or grid cells. DNL may also be used for measuring other noise sources, such as automobile traffic, to determine combined noise effects.

dba: See A-Weighted Sound Level.

Decibel (dB): A unit for measuring the volume of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound.

Decision Height (DH): The height at which a decision must be made, during an ILS or PAR instrument approach, to either continue the approach or to execute a missed approach. (FAR Part 1)

de minimis: Below the level of significance requiring formal determination of project conformity.

Designated Instrument Runway: A runway that has been selected as being suitable for the installation of a precision approach aid such as an ILS, for which there is an existing or forecast need.

DF Fix: The geographical location of an aircraft obtained by the direction finder.

Direction Finder (DF, VDF, UVD): A radio receiver equipped with a directional sensing antenna used to take bearings on a radio transmitter.

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



GLOSSARY

Distance Measuring Equipment (DME):

Electronic equipment used to measure, in nautical miles, the slant range of the aircraft from a navigation aid.

DME Fix: A geographical position determined by reference to a navigational aid which provides distance and azimuth information as defined by a specified distance in nautical miles and a radial in degrees magnetic from that aid.

DME Separation: Spacing of aircraft in terms of distance (miles) determined by reference to distance measuring equipment. (DME).

E

Enplaned Passengers: The total number of revenue passengers boarding aircraft, including originating, stopover, and transfer passengers, in scheduled and nonscheduled services.

En Route Air Traffic Control Service:

Air traffic control service provided aircraft on an IFR flight plan when these aircraft are operating between departure and destination terminal areas.

Environmental Assessment (EA): A statement prepared under the requirements of the National Environmental Policy Act of 1969 (NEPA), Section 102(2) (c). The EA represents a federal agency's evaluation of the effects of a proposed action on the environment. Regulations relating to the preparation of an EA are published in FAA Order 5050.4A, *Airport Environmental Handbook*.

Exit Taxiway: A taxiway used as an exit from a runway to another runway, apron, or other aircraft operating area.

F

FAA Order 5050.4B: This document, entitled *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, provides instruction on analyzing the environmental effects of airport actions and its alternatives.

FAR PART 36: Federal Aviation Regulations Part 36, *Noise Standards: Aircraft Type and Airworthiness Certification*. Establishes noise standards for the civil aviation fleet. Some extensions for compliance are included in the Aviation Safety and Noise Abatement Act of 1979.

FAR PART 77: Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*. Establishes standards for determining obstructions and conducting aeronautical studies to determine the potential effects of obstructions on aircraft operations. Objects are considered to be obstructions to air navigation according to FAR Part 77 if they exceed certain heights or penetrate certain imaginary surfaces established in relation to airports. Objects classified as obstructions are subject to an aeronautical study by the FAA to determine their potential effects on aircraft operations.

FAR PART 91: Federal Aviation Regulations Part 91, *General Operating and Flight Rules*. On September 25, 1991, the FAA issued an amendment to FAR Part 91 (14CFR91) in conformance with the requirements of the Airport Noise and Capacity Act of 1990. The amendment to the aircraft operating rules requires a phased transition to an all Stage 3 fleet operating in the 48 contiguous United States and the District of Columbia by December 31, 1999. The amendment places a cap on the number



GLOSSARY

of Stage 2 aircraft allowed to operate in the United States and provides for a continuing reduction in the population exposed to noise from Stage 2 aircraft.

FAR PART 150: Federal Aviation Regulations Part 150, *Airport Noise Compatibility Planning*. An FAR Part 150 Program is an FAA-assisted study designed to increase the compatibility of land and facilities in the areas surrounding an airport that are most directly affected by operation of the airport. The specific purpose is to reduce the adverse effects of noise as much as possible by implementing both on-airport noise abatement measures and off-airport noise mitigation programs. The basic products of an FAR Part 150 program typically include (1) noise exposure maps for the existing condition and for 5 years in the future; (2) workable on-airport noise abatement measures, such as preferential runway use programs, new or preferential flight tracks, and curfews; (3) off-airport noise mitigation measures (land use control programs and regulations), such as land acquisition, soundproofing, or special zoning; (4) an analysis of the costs and the financial feasibility of the recommended measures; and (5) policies and procedures related to the implementation of on- and off-airport programs. A community involvement program is carried on throughout all phases of program development.

Federal Aviation Administration (FAA): The agency of the U.S. Department of Transportation that is charged with (1) regulating air commerce to promote its safety and development; (2) achieving the efficient use of navigable airspace of the United States; (3) promoting, encouraging, and developing civil aviation; (4) developing and operating a common system of air traffic control and air navigation for

both civilian and military aircraft; and (5) promoting the development of a national system of airports.

Final Approach Area(s): Areas of defined dimensions protected for aircraft executing instrument approaches.

Final Approach (IFR): The flight path of an aircraft that is inbound to the airport on an approved final instrument approach course, beginning at the final approach fix or point.

Final Approach (VFR): A flight path of a landing aircraft in the direction of landing along the extended runway centerline.

Flight Track: The average flight path flown by aircraft within specific corridors. Deviation from these tracks occurs because of weather, pilot technique, air traffic control, and aircraft weight. Individual flight tracks within a corridor are "averaged" for purposes of modeling noise exposure using the Integrated Noise Model (INM).

G

General Aviation: That portion of civil aviation that encompasses all aviation except air carriers and large aircraft commercial operators.

General Aviation Aircraft: All civil aircraft except those used by air carriers.

Glide Slope (GS): An ILS navigation facility providing vertical guidance for aircraft during approach and landing.

Ground Controlled Approach (GCA): A radar landing system operated from the ground by air traffic control personnel



GLOSSARY

transmitting instructions to the pilot by radio.

H

Handoff: Passing control of an aircraft from one controller to another.

Holding Apron: (see holding bay)

Holding Bay: An area where aircraft can be held, or bypassed, to facilitate efficient ground traffic movement.

Holding Point: A designated point or location, identifiable by the pilot by visual reference to the ground or by NAVAIDs, near which he or she maneuvers the aircraft while awaiting further clearance.

I

IFR Airport: An airport with an authorized approach procedure.

IFR Conditions: Weather conditions below the minimums for flight under visual flight rules. (FAR Part 1)

ILS Category I: An ILS that provides acceptable guidance information from the coverage limits of the ILS to the point at which the localizer course line intersects the glide path at a height of 100 feet above the horizontal plane containing the runway threshold. A Category I ILS supports landing minimums as low as 200 feet, HAT and 1800 RVR.

ILS Category II: An ILS that provides acceptable guidance information from the coverage limits of the ILS to the point at which the localizer course line intersects the glide path at a height of 50 feet above the horizontal plane containing the runway

threshold. A category II ILS supports landing minimums as low as 100 feet, HAT and 1200 RVR.

ILS Category III: An ILS that provides acceptable guidance information from the coverage limits of the ILS with no decision height specified above the horizontal plane containing the runway threshold. (See ILS-CAT III A operations.)

ILS-CAT III A Operations: Operation, with no decision height limitation, to and along the surface of the runway with a runway visual range not less than 700 feet.

Impact: In environmental analyses, the word "impact" is used to express the extent or severity of an environmental problem, e.g., the number of persons exposed to a given noise environment. As indicated in CEQ 1500 (Section 1508.8), impacts and effects are considered to be synonymous. Effects or impacts may be ecological, aesthetic, historic, cultural, economic, social, or health related, and they may be direct, indirect, or cumulative.

Inner marker (IM): An ILS navigational facility that indicates to the pilot, both aurally and visually, that he is directly over the facility at an altitude of 100 feet on final ILS approach, providing he is on the glide path.

Instrument Approach: An approach to an airport, with intent to land, when the visibility is less than 3 miles and/or when the ceiling is at or below the minimum initial altitude.

Instrument Approach Runway: A runway served by an electronic aid providing directional guidance adequate for a straight-in approach.



GLOSSARY

Instrument Approach System: An air navigation system used to guide aircraft to a safe landing beginning at an initial approach point and ending at a point near enough to the ground to permit a visual landing.

Instrument Flight Rules (IFR): FAR rules that govern the procedures for conducting instrument flight. (FAR Part 91)

Instrument Landing System (ILS): A system that provides the lateral, longitudinal, and vertical guidance necessary for a landing.

Instrument Operation: An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility or air route traffic control center.

Instrument Runway: A runway equipped with electronic and visual navigation aids and for which a straight-in (precision or non-precision) approach procedure has been approved or is planned.

Integrated Noise Model (INM): A computer model developed by the FAA and required by the FAA for use in environmental assessments, environmental impact statements, and FAR Part 150 studies for developing existing and future aircraft noise exposure maps.

L

Land Use Compatibility Assurance: Documentation provided by an airport sponsor to the FAA. The documentation is related to an application for an airport development grant. Its purpose is to assure that a reasonably appropriate action, including the adoption of zoning laws, has

been taken or will be taken to restrict the use of land adjacent to the airport or in the immediate vicinity of the airport. Such uses are limited to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft.

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

Localizer (LOC): An ILS navigation facility providing horizontal guidance to the runway centerline during approach and landing.

Localizer Type Directional Aid (LDA): A facility of comparable utility and accuracy to a localizer that is not aligned with the runway having an angle of divergence exceeding 3 degrees but not exceeding 30 degrees.

Longitudinal Separation: The longitudinal spacing of aircraft at the same altitude by a minimum distance expressed in units of time or miles.

Loudness: The judgment of the intensity of a sound by a person. Loudness depends primarily on the sound pressure of the stimulus. Over much of the loudness range, it takes about a threefold increase in sound pressure (approximately 10 decibels) to produce a doubling of loudness.

Low Altitude Airway Structure: The airways serving aircraft operations up to but not including 18,000 feet MSL.

M

Minimum Descent Altitude (MDA): The lowest altitude, expressed in feet above mean sea level, to which descent is



GLOSSARY

authorized on final approach or during circle-to-land maneuvering. (FAR Part 1)

Missed Approach: An instrument approach not completed by landing due to (1) visual contact not established at authorized minimums; or (2) landing not completed due to other reasons; or (3) instructions from air traffic control.

Missed Approach Procedure (MAP): Flight procedures prescribed when an aircraft fails to land after completing an instrument approach.

Mitigation Measure: An action that can be planned or taken to alleviate (mitigate) an adverse environmental impact. Mitigation consists of the following:

- (1) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (2) Minimizing the impact by limiting the degree or magnitude of the action and its implementation.
- (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (5) Compensating for the impact by replacing or providing substitute resources or environments. A proposed airport development project, or alternatives to that project, may constitute a mitigation measure.

N

NAVAID: Any facility used in aid of air navigation, including lights; equipment for disseminating weather information, signaling, radio direction finding, or radio or other electronic communication, and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or the landing or takeoff of aircraft.

Noise: Any sound that is considered to be undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying.

Noise Abatement Procedures: Changes in runway use, flight approach and departure routes and procedures, and other air traffic procedures that are made to shift adverse aviation effects away from noise-sensitive areas (such as residential neighborhoods).

Noise Contours: Lines drawn on a map that connect points of equivalent DNL values. They are usually drawn in 5 dB intervals, such as connections of DNL 75 values, DNL 70 values, DNL 65 values, and so forth.

Noise-Sensitive Land Use: Land uses that can be adversely affected by high levels of aircraft noise. Residences, schools, hospitals, religious facilities, libraries, and other similar uses are often considered to be sensitive to noise.

Nonprecision Instrument Runway: A runway having only horizontal navigation guidance for which a straight-in, nonprecision instrument approach procedure has been approved.



GLOSSARY

Normally Unacceptable: DNL above 65 but not exceeding 75 decibels). The noise exposure is significantly more severe; barriers may be necessary between the site and prominent noise sources to make the outdoor environment acceptable; special building constructions may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.

0

100-Year Floodplain: An area subject to flooding with an annual frequency of 1: 100.

Obstacle Free Area (OFA): A two-dimensional ground area surrounding runways, taxiways, and taxilanes which is clear of objects except for objects whose location is fixed by function.

Obstacle Free Zone (OFZ): The airspace centered about the runway that is clear of object penetrations other than frangible NAVAIDS.

Outer Marker (OM): An ILS navigation facility located four to seven miles from the runway edge on the extended centerline which indicates both aurally and visually, that the aircraft is passing over the facility and can begin its final approach.

P

Pattern: The configuration or form of a flight path flown by an aircraft, or prescribed to be flown, as in making an approach to a landing.

Precision Approach Procedure: A standard instrument approach procedure in which an electronic glide slope is provided, such as ILS or PAR. (FAR Part 1)

Precision Approach Radar (PAR): A radar facility used to detect and display azimuth, range, and elevation of an aircraft on the final approach to a runway.

Primary Surface: A rectangular surface longitudinally centered about a runway. Its width is a variable dimension and it usually extends 200 feet beyond each end of the runway. The elevation of any point on this surface coincides with the elevation of its nearest perpendicular point on the runway centerline or extended runway centerline.

Project: The whole of an action that has a potential for resulting in a physical change in the environment, directly or ultimately, and that is any of the following:

(1) An activity directly undertaken by any public agency, including but not limited to public works construction and related activities, clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.

(2) An activity undertaken by a person, which is supported in whole or in part through public agency contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.

(3) An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

R

Radar Approach Control (RAPCON): A joint-use air traffic control facility, located



GLOSSARY

at a U.S. Air Force Base, utilizing surveillance and precision approach radar equipment in conjunction with air/ground communication equipment.

Reliever Airport: An airport to serve general aviation aircraft that might otherwise use a congested airport served by air carriers.

RNAV Way Point (w/p): A predetermined geographical position used for route or instrument approach definition or progress reporting procedures that is relative to a VORTAC station position (FAR Part 1).

Runway Alignment Indicator Light (RAIL): An airport lighting facility consisting of five or more sequenced flashing lights installed on the extended centerline of the runway.

Runway End Identification Light (REIL): An airport lighting facility consisting of a single flashing high intensity white light installed at each approach end corner of a runway and directed toward the approach zone, enabling the pilot to identify the threshold of a usable runway.

Runway Gradient (effective): The average difference in elevation of the two ends of the runway divided by the runway length if no intervening point lies more than five feet above or below a straight line joining the two ends of the runway. If the criteria are not met, the runway profile will be segmented and aircraft data will be applied for each segment separately.

Runway Orientation: The magnetic bearing of the centerline of the runway.

Runway Protection Zone (RPZ): An area (formerly referred to as the clear zone) used

to enhance the safety of aircraft operations.

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

Runway Strength: The ability of a runway to support aircraft of a designated gross weight for single wheel, dual wheel, and dual tandem wheel gear types.

Runway Visual Range (RVR): The horizontal distance a pilot can see down the runway from the approach end; based on the sighting of either high-intensity runway lights or the visual contrast of other targets, whichever yields the greater visual range.

S

Segmented Circle: A basic marking device used to aid pilots in locating airports.

Separation: The spacing of aircraft to achieve 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.

Severe Noise Exposure: Exposure to aircraft noise that is likely to interfere with human activity in noise-sensitive areas; repeated vigorous complaints can be expected and group action is probable. This exposure may be specified by a cumulative noise descriptor as a level of noise exposure, such as DNL 75. (See also Significant Noise Exposure.)



GLOSSARY

Significant Effect On The Environment:

A substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself is not considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

Significant Noise Exposure: Exposure to aircraft noise that is likely to interfere with human activity in noise-sensitive areas; individual complaints may be expected and group action is possible. This exposure may be specified by a cumulative noise description as a level of noise exposure, such as DNL 65. (See also Severe Noise Exposure.)

Sound Level (Noise Level): The weighted sound pressure level obtained by the use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.

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

Special VFR Operations: Aircraft operating in accordance with clearances within certain control zones in weather conditions less than the basic VFR weather minimums.

Standard Terminal Arrival Route (STAR): A preplanned coded air traffic control IFR arrival routing.

Statute Mile: A statute mile equals 5,280

feet.

Straight-In Approach: An instrument approach wherein the final approach is commenced without first having executed a procedure turn (not necessarily completed with a straight-in landing).

T

Tactical Air Navigation (TACAN): A radio transponder facility utilized by airborne equipment to compute bearing and distance relative to the facility.

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

Taxiway: A defined path established for the taxiing of aircraft from one part of the airport to another.

Terminal Building: A building or buildings designed to accommodate the enplaning and deplaning activities of air carrier passengers.

Terminal Facilities: The airport facilities providing services for air carrier operations that serve as a center for the transfer of passengers and baggage between surface and air transportation.

Terminal Radar Approach Control (TRACON): A terminal air traffic control facility co-located with an Airport Traffic Control Tower.

Terminal Radar Service Area (TRSA): A specified area around a terminal in which participating VFR pilots are provided separation from other participating VFR aircraft and IFR aircraft.



GLOSSARY

Terminal VOR (TVOR): Very high frequency terminal omnirange station (located on or near an airport and used as an approach aid).

Threshold: The designated beginning of the runway that is available and suitable for the landing of aircraft. When the threshold is located at a point other than at the beginning of the pavement, it is referred to as either a displaced threshold or a relocated threshold depending on how the pavement behind is marked.

Timber Harvest: A method of removing trees via non-mechanical means.

Traffic Pattern: The traffic flow that is prescribed for aircraft landing at, taxiing on, and taking off from an airport. (FAR Part 1) Typical components of a traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach.

Transport Airport: An airport designed, constructed, and maintained to serve airplanes in Aircraft Approach Category C and D.

U

Unicom: Frequencies authorized for aeronautical advisory services to private aircraft.

Utility Airport: An airport designed, constructed, and maintained to serve airplanes in Aircraft Approach Category A and B.

V

VFR Airport: An airport without an authorized or planned instrument approach procedure.

Visual Approach: An approach wherein an aircraft having an air traffic control authorization may deviate from the prescribed instrument approach procedure and proceed to the airport of destination, served by an operational control tower, by visual reference to the ground.

Visual Approach Slope Indicator (VASI): An airport lighting facility that provides vertical visual guidance to aircraft during approach and landing, by radiating a directional pattern of high intensity red and white focused light beams.

Visual Flight Rules (VFR): Rules that govern the procedures for conducting flight under visual conditions. (FAR Part 91)

Visual Meteorological Conditions (VMC): Weather conditions that permit aircraft to be operated in accordance with visual flight rules.

VOR/DME: A VOR to which a specific kind of distance measuring device has been added. (See VORTAC.)

W

Waypoint (w/p): A predetermined geographical position used for route definition and/or progress reporting purposes that is defined relative to a VORTAC station position.

Wind Cone: A free rotating fabric cone that indicates wind direction and wind force.

Wind Rose: A diagram for a given location showing relative frequency and velocity of wind from all compass directions.

Wind Tee: A tee-shaped free rotating device that indicates wind direction.

