



# Master Plan 2024







Master Plan 2024

#### Prepared for:

Lexington-Fayette Urban County Airport Board 4000 Terminal Drive, Suite 206 Lexington, Kentucky 40510-9607

#### Prepared by:





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# Acronyms

	A		D
AA	American Airlines	DASR	Digital Airport Surveillance Radar
AAC	Aircraft Approach Category	DHS	US Department of Homeland Security
AC	Advisory Circular	DL	Delta Air Lines
ACIP	Airports Capital Improvement Plan	DOT	Department of Transportation
ACRP	Airport Cooperative Research Program		
ADG	Airplane Design Group		E
ADRM	Air Development Reference Manual	EA	Environmental Assessment
AGL	Above Ground Level	EDS	Explosive Detection System
AIM	FAA's Aeronautical Information Manual	EIS	Environmental Impact Statement
AIP	Airport Improvement Program	ELBC	Exit Lane Breach Control
ALD	Airport Layout Drawing Sheet	EMAS	Engineered Material Arresting System
ALP	Airport Layout Plan	EQA	Equivalent Aircraft
ALS	Approach Lighting System	eVOTL	Electric Vertical Takeoff and Landing
AMSL	Above Mean Sea Level	0,012	Elocatio Voltacai Talkoon ana Earlaing
AOA	Air Operations Area		F
APM	Aircraft Performance Manual	FAA	Federal Aviation Administration
APV	Approach Procedure with Vertical	FBO	Fixed-Based Operator
71. 4	Guidance	FIS	Federal Inspection Station
ARC	Airport Reference Code	FP	Fire Protection
ARFF	Airport Rescue and Firefighting	FT	Feet/Foot
ASL	Automated Security Lanes	FY	Fiscal Year
ASOS	Automatic Surface Observation System		riscar real
ASV	Air Service Volume		G
ATC	Air Traffic Control	GA	General Aviation
ATCT	Air Traffic Control Tower	GAMA	General Aviation Manufacturers
ATM	Automatic Teller Machines	OAIVIA	Association
ATO	Airline Ticket Office	GLS	GNSS Landing System
AW	All Weather	GNSS	Global Navigation Satellite System
AVV	All Wedthel	GPS	Global Positioning System
	В	GSF	Gross Square Feet
BEA	Bureau of Economic Analysis	GSF	Gloss square reet
BHS	Baggage Handling System		н
BLS	Bureau of Labor Statistics	HIRL	High-Intensity Runway Lights
BRL	Building Restriction Line	HR	Hour
BSO	Baggage Service Office	TIIX	riodi
BTS	Bureau of Transportation Statistics		1
ы	baread of fransportation statistics	IAP	Instrument Approach Procedure
	С	IATA	International Air Transportation
CAGR	Compound Annual Growth Rate	IATA	Association
CAT	Category	ICAO	International Civil Aviation Organization
CBIS	Checked Baggage Inspection System	IFR	Instrument Flight Rules
CBP	Customs and Border Protection	ILS	Instrument Landing System
CBRA	Checked Baggage Resolution Area	IT	Information Technology
CERCLA	Comprehensive Environmental	11	inionnation rechinology
CLRCLA	Response, Compensation,		K
	and Liability Act	KYNG	Kentucky National Guard
CHA	CHA Consulting, Inc.	KYTC	Kentucky Transportation Cabinet
CLAC	Community Leadership Advisory	KIIC	Remarky Harisportation Cabinet
OLAC	Committee		L
CMG	Center of Main Gear	LDA	Landing Distance Available
CWA	Clean Water Act	LED	Light Emitting Diode
CVA	Calendar Year	LEX	Blue Grass Airport
01	Calcillati Total	LLA	biac crass Ailport

Acronyms xxv



LF	Load Factor		0
LFUCAB	Lexington-Fayette Urban County Airport	Q&O	Origin & Destination
	Board	OFA	Object Free Area
LIRL	Low-Intensity Runway Lights	OFZ	Object Free Zone
LLWAS	Low Level Windshear Alert System	OIS	Operational Information Supplement
LOC	Localizer	OPBA	Operations Per Based Aircraft
LOS	Level of Service	OPSNET	FAA Operations Network
LP	Localizer Performance	OSR	On-Screen Resolution
LPZ	Localizer Performance with Vertical		
	Guidance		P
		PA	Precision Approach
	M	PAL	Planning Activity Level
M&G	Meeters and Greeters	PAPI	Precision Approach Path Indicator
MALS	Medium-Intensity Approach Lighting	PAX	Passenger
	System	PBB	Passenger Boarding Bridges
MALSR	Medium-Intensity Approach Lighting	PCC	Portland Cement Concrete
	System	PCN	Pavement Classification Number
	with Runway Alignment Indicators	PCPI	Per Capita Personal Income
MAP	Million Annual Passengers	PHP	Peak-Hour O&D Passenger Demand
MEP	Mechanical, Electrical, and Plumbing	PM	Peak Month
MEPIT	Mechanical, Electrical, Plumbing, and	PMAD	Peak Month-Average Day
	Information Technology Systems	PMP	Pavement Management Plan
MGW	Main Gear Width	PVC	Poor Visibility Conditions
MIN	Minute		•
MIRL	Medium-Intensity Runway Lights		Q
MITL	Medium-Intensity Taxiway Lights	QATAR	Quick Analysis Tool for Airport Roadways
MLW	Maximum Landing Weight	QTA	Quick Turn-Around
MON	Minimum Operational Network		
MSA	Metropolitan Statistical Area		R
MSL	Mean Sea Level	RAILS	Runway Alignment Indicator Lights
MTOW	Maximum Takeoff Weight	RC	Rental Car
	· ·	RCRA	Resource Conservation & Recovery Act
	N	RDC	Runway Design Code
NA	Not Applicable	REIL	Runway End Indicator Lights
NACO	National Aeronautical Charting Office	RF	Radio Frequencies
NAS	National Airspace System	RNAV	Area Navigation
NAVAID	Navigation Aid	RNP	Required Navigation Performance
NBEG	Narrow-Body Equivalent Gate	ROFA	Runway Object Free Area
NCEI	National Centers for Environmental	ROFZ	Runway Object Free Zone
	Information	RON	Remain Overnight
NDB	Non-Directional Beacon	RPZ	Runway Protection Zone
NEPA	National Environmental Policy Act	RSA	Runway Safety Area
NM	Nautical Miles	RSAD	Runway Safety Area Determination
NO.	Number of/Number	RVR	Runway Visual Range
NOAA	National Oceanic and Atmospheric		,
	Administration		\$
NPA	Non-Precision Approach	SARA	Service Animal Relief Area
NPDES	National Pollutant Discharge Elimination	SAWS	Standalone Weather System
	System	SF	Square Foot/Feet
NPIAS	National Plan of Integrated Airport	SID	Standard Instrument Departure
	Systems	SIP	State Implementation Plan
NPL	National Priorities List	SSCP	Security Screening Checkpoint
		STAR	Standard Terminal Routes
		SWPPP	Stormwater Pollution Prevention Plan

xxvi Acronyms

T

TAC Technical Advisory Committee

TAF Terminal Area Forecast

T&G Touch and Go

TDG Taxiway Design Group
TDZL Touch Down Zone Lights

TFMSC Traffic Flow Management System Count

TO Take Off

TOFA Taxiway Object Free Area

TRACON Terminal Radar Approach Control Facility

TRB Transportation Research Board

TSA Taxiway Safety Area

TSA Transportation Security Administration
TSEP Taxiway Safety Enhancement Plan

U

UA United Airlines
UAM Urban Air Mobility
UAV Unmanned Aerial Vehicle
ULCC Ultra-Low-Cost Carrier

USCBP United States Customs and Border

Protection

USDOT United States Department of

Transportation
Usable Square Feet

V

VFR Visual Flight Rules

USF

VGSI Visual Guide Slope Indicator

VHF Very High Frequency

VNAV Visual Navigation Aids

VOR Very High Frequency Omnidirectional

Range

VORTAC VHF Omni Directional Range/Tactical Air

Navigation

VTOL Vertical Takeoff and Landing

W

WW Well Wishers

Acronyms xxvii



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xxviii Acronyms



### Glossary

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

Aeronautical Information Manual (AIM) May 2022 – Published by the Federal Aviation Administration, AIM seeks to provide the national aviation community with basic flight information, as well as ATC procedures, that are necessary to fly in the US National Airspace System. Moreover, AIM also includes information for pilots that revolves around health/medical facts, flight safety, a pilot/controller glossary of terms used in the ATC System, and information on safety, accident, and hazard reporting.

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

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

**Air Carrier** – Operations with aircraft designed to have a seating capacity of more than 60 seats or a maximum payload capacity of more than 18,000 pounds carrying passengers or cargo for hire or compensation. This includes US and foreign-flagged carriers.

**Air Operations Area (AOA)** – Air Operations Area refers to a designated portion of an airport outside of the secured area in which Code of Federal Regulations Part 77 security measures are carried out. This specified space often includes movement areas, aircraft parking, loading ramps, general aviation areas, and any other areas that require protection but are not covered by adequate security systems, measures, or procedures.

**Air Taxi & Commuter** – Operations with aircraft designed to have a maximum seating capacity of 60 seats or less or a maximum payload capacity of 18,000 pounds or less, carrying passengers or cargo for hire or compensation

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

Aircraft Approach Category (AAC) - A Federal Aviation Administration grouping of aircraft based on approach speed

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

**Airplane Design Group (ADG)** – The Federal Aviation Administration Airplane Design Group subdivides airplanes by wingspan or tail height, whichever is more restrictive.

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

Airport Elevation - Established elevation of the highest point on the usable landing area

Glossary xxix



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

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

**Airport Layout Plan (ALP)** – A scaled drawing of existing and proposed airside and landside facilities necessary for the operation and development of the airport. The ALP shows (1) boundaries and proposed additions to areas owned or controlled by the sponsor, (2) the location and nature of existing and proposed airport facilities and structures, and (3) the location on the airport of existing and proposed non-aviation areas and improvements. The ALP may also depict those properties adjacent to the airport ownership that may have legal access to the airport.

Airport Layout Plan Set – This document typically contains a set of drawings that illustrate the existing and future development of the airport. An ALP set may often contain the following: (1) Airport Layout Drawing (Plan), (2) Airport Airspace Drawing, (3) Inner Portion of the Approach Surface Drawing, (4) Terminal Area Drawing, (5) Land Use Drawing, and (6) Airport Property Map. The drawings depict existing and proposed airport facilities, land uses, approach zones, and other defined areas of airspace, as well as environmental features that may influence airport usage and expansion capabilities.

Airport Manager - A person authorized by the airport sponsor to exercise administrative control of the airport

Airport Master Plan - Long-term development plan for the airport adopted by the airport sponsor

**Airport Obstruction Zoning Ordinance** – A local height restriction ordinance that follows Code of Federal Regulations Part 77, implements a local community's comprehensive plan, and provides specific height standards for the area beneath the airport's imaginary surface

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

**Airport Sponsor** – Municipality or authority of the airport allowed to apply for and receive grants. Synonymous with the owner. For Blue Grass Airport, the sponsor is the Lexington-Fayette Urban County Airport Board (the 'Board').

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

**Airside** – Portion of the airport facility where aircraft movements take place, including airline operations and areas that directly serve the aircraft, such as taxiways, runways, maintenance and fueling areas

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

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**Approach Procedure with Vertical Guidance (APV)** – An instrument approach procedure providing both vertical and lateral electronic guidance

**Approach Surface** – A surface defined by Code of Federal Regulations Part 77 "Objects Affecting Navigable Airspace" that is longitudinally centered on the runway centerline and extends outward and upward from each end of the primary surface. An approach surface is applied to each end of every runway based on the type of approach available or planned for that runway end.

**Apron** – A portion of an airport provided for the stationing of aircraft to allow for the embarkation and disembarkation of passengers, loading and unloading of cargo, and aircraft parking

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

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

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

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

**Baggage Handling System (BHS)** – Procedures/technology at an airport that processes and holds passenger luggage. Baggage handling systems often include a checked baggage inspection system, checked baggage resolution areas, make-up, and inbound dump capacities

**Baggage Service Offices (BSO)** – Airline baggage service offices are an airport module that consists of a public service area and a secure baggage storage room in a terminal building, often adjacent to the baggage claim devices.

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

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

**Bureau of Economic Analysis (BEA)** – A US Federal agency that produces macroeconomic statistics concerning trade, personal income, and gross domestic product for industries of varying national jurisdictional interests

Bypass Taxiway - A taxiway used to reduce aircraft queuing demand by providing multiple takeoff points

**Category-I (CAT-I) ILS** – A precision instrument approach with a Height Above Threshold (HATh) or minimum descent altitude not lower than 200 feet and with either a visibility not less than half-statute mile, or a runway visual range not less than 1800 feet

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Category-II (CAT-II) ILS – A precision instrument approach with a Height Above Threshold (HATh) lower than 200 feet but not lower than 100 feet and a runway visual range not less than 1,200 feet

Category-III (CAT-III) ILS – A precision instrument approach with a Height Above Threshold (HATh) lower than 100 feet, or no HATh, or a runway visual range less than 1,200 feet

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

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

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

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Federal regulation enacted on December 11, 1980, that created a tax on chemical/petroleum industries to respond to measures that threaten public health or the environment. This act is commonly known as *Superfund* and often involves the clean-up/removal of hazardous waste sites.

**Community Leadership Advisory Committee (CLAC)** – An established group of 15-20 leaders from the project area with ties to economic, travel, government, and business ventures that are assembled to discuss initiatives, goals, and feedback related to the given airport study

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

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

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

**Department of Homeland Security (DHS)** – A wide-ranging US public department that focuses on matters that relate to national security, including border, cybersecurity, aviation, and emergency response concerns

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

**Design Aircraft** – An aircraft with characteristics that determine the application of airport design standards for a specific runway, taxiway, tax

**Distance Measuring Equipment (DME)** – Airborne and ground-based equipment used to measure the slant-range distance of an aircraft from a DME navigational aid in nautical miles

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**Electric Vertical Take-off and Landing Aircraft (eVOTL)** – Aircraft that use electric propulsion power (batteries) to take off and land vertically

**Engineered Materials Arresting System (EMAS)** – Crushable material at the end of identified runways used to safely arrest (i.e., decelerate) aircraft that operate within a limited runway safety area. EMAS is used to ensure that aircraft do not overrun specified runway safety areas into possible local hazards.

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

Enplanement - A passenger boarding a commercial flight

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

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

**Environmental Assessment (EA)** – In accordance with the National Environmental Policy Act, an EA is a concise document that assesses the potential environmental impacts of a proposed federal action. The EA discusses the purpose and need for the proposed action, alternatives considered, potential environmental impacts, proposed mitigation measures, and documentation of the public involvement process. An EA should provide sufficient evidence and analysis for a federal determination of whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact.

**Environmental Impact Statement (EIS)** – In accordance with the National Environmental Policy Act, an EIS is a document that provides a full and fair discussion of the significant environmental impacts that could occur as a result of a proposed project, and it informs decision–makers and the public of reasonable alternatives that would avoid or minimize adverse impacts.

**Federal Aviation Administration (FAA)** – A federal agency charged with regulating air commerce to promote its safety and development; encouraging and developing civil aviation, air traffic control, and air navigation; and promoting the development of a national system of airports

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

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

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

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

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**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 Manufactures Association (GAMA)** – A trade association that represents the interests of actors within the general aviation operator space

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

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

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

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

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

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

**Instrument Approach Procedure (IAP)** – A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by the Federal Aviation Administration.

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

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

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

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

**International Civil Aviation Organization (ICAO)** – United Nations-affiliated agency established to support the growth of international aviation safety, procedures, and coordination

**Itinerant Operation** – Any aircraft arrival and/or departure other than a local operation

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**Kentucky Transportation Cabinet (KYTC)** – A Kentucky state agency that is charged with maintaining statewide infrastructure systems, including roads, airports, public transit, and licensed drivers

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

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

**Lexington-Fayette Urban County Airport Board (LFUCAB)** – The airport "sponsor" or owner of Blue Grass Airport. Also referred to as "the Board." The Board operates as a landlord, managing its facilities' upkeep, improvement, and expansion. The Board is comprised of 10 members who are appointed by the mayor of Lexington and confirmed by the Urban County Council. The Board is responsible for setting relevant policies and representing the interests of community members.

**Local Operation** – Any operation performed by an aircraft that (1) operates in the local traffic pattern or within sight of the tower or airport, or (2) is known to be departing for or arriving from, flight in local practice areas located within a 20-mile radius of the control tower or airport, or (3) executes a simulated instrument approach or low pass at the airport

Load Factor (LF) - Percentage of available seats that are filled with paying passengers, or of freight capacity that is utilized

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

**Medium Intensity Runway Lights (MIRL)** – Runway lighting used on visual flight rule runways or runways showing a non-precision instrument flight rule procedure for either circling or straight-in approach

Military Operation – An aircraft operation conducted by either a fixed-wing or rotor-wing military aircraft

Meeters and Greeters (M&G) - Non-passenger terminal populace associated with arriving passengers

**Modification to Standards** – Any approved nonconformance to Federal Aviation Administration standards, other than dimensional standards for Runway Safety Areas, applicable to an airport design, construction, or equipment procurement project that is necessary to accommodate an unusual local condition for a specific project on a case-by-case basis while maintaining an acceptable level of safety.

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

National Airspace System (NAS) – A common network of US airspace, air navigation facilities, equipment and services, airports, or landing areas

**National Plan of Integrated Airport Systems (NPIAS)** – Prepared by the Federal Aviation Administration, the primary purpose of the NPIAS is to identify the airports that are important to national air transportation and are thus eligible to receive grants under the Airport Improvement Program. The NPIAS is composed of all commercial service airports, all reliever airports, and selected general aviation airports.

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**National Pollutant Discharge Elimination System (NPDES)** – Established under the Clean Water Act (1972), NPDES is an Environmental Protection Agency-affiliated program that is responsible for permitting, administrative, and enforcement aspects of pollution-related programs.

Nautical Mile (NM) - A measure of distance equal to one minute of arc on the earth's surface (approximately 6,080 feet)

**Navigation Aids (NAVAIDs)** – Any facility used by an aircraft for guiding or controlling flight in the air or the landing or takeoff of an aircraft

**Noise** – Defined subjectively as unwanted sound, the measurement of noise evaluates three characteristics of sound: intensity, frequency, and duration

**Non-directional Beacon (NDB)** – A radio beacon transmitting non-directional signals that a pilot of an aircraft equipped with direction-finding equipment can determine his/her bearing on or from the radio beacon and "home in" on or track to or from the station. When the radio beacon is installed in conjunction with the instrument landing system marker, it is normally called a compass locator.

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

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

**Non-precision Approach Procedure** – A straight-in instrument approach procedure that provides course guidance, with or without vertical path guidance, with visibility minimums not lower than 3/4 mile (4000 RVR)

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

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

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

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

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

On-airport Property - Property that is within the boundary of land owned by the airport sponsor

Passenger - Revenue paying individual boarding an aircraft for scheduled service

**Pavement Management Plan (PMP)** – Airport lead initiative that provides a consistent and systematic procedure for making decisions about pavement maintenance and rehabilitation

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

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

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

Precision Instrument Runway - A runway having an existing instrument landing system

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

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

**Quick Turn Around (QTA)** – A rental car-affiliated facility that provides a location for maintenance of rental fleets, typically involving routine/light maintenance such as inspections or cleaning

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

Ramp - See Apron

**Resource, Conservation, and Recovery Act (RCRA)** – Environmental Protection Agency-affiliated federal law that creates the framework for the proper management of hazardous and non-hazardous solid waste

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

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

Runway Blast Pad - A surface adjacent to runway ends provided to reduce the erosive effect of jet blast/propeller wash

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

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

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**Runway Protection Zone (RPZ)** – The RPZ is defined by the Federal Aviation Administration as a trapezoid-shaped area centered about the extended runway centerline that is used to enhance the safety of aircraft operation. It begins 200 feet beyond the end of the runway or area usable for takeoff or landing. The RPZ dimensions are functions of the design aircraft, type of operation, and visibility minimums for the particular runway. The depth of the RPZ can vary from 1,000 feet to 2,500 feet, depending on the type of aircraft and approach minimums designated for that specific runway.

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

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

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

Slope - An incline from the horizontal expressed in an arithmetic ratio of horizontal magnitude to vertical magnitude

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

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

**Stormwater Pollution Prevention Plan (SWPP)** – SWPPP is a site-specific document that acknowledges the concerns related to stormwater discharge brought by intended construction. Often, a SWPPP will include procedures that help identify how the operator will comply with the terms given in the allotted construction permit.

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

Taxilane - 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 an airport to another

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

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

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

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**Terminal Advisory Committee (TAC)** – A group with wide-ranging backgrounds that is established to provide technical assistance and advice about the current and future operations and development at Blue Grass Airport

**Terminal Area Forecast (TAF)** – An annual Federal Aviation Administration forecast of aviation activity throughout the US used in the Federal Aviation Administration's planning and decision making

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

**Touch-and-Go (T&G)** – An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway.

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

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

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

**Unmanned Aerial Vehicle (UAV)** – Aircraft that operate without direct human manipulation, often under the control of ground operators physically removed from the vehicle

**Urban Air Mobility (UAM)** – An aviation transportation network that operates safely and efficiently in an urban (metropolitan/densely populated) area with a focus on air passenger and cargo transportation operations. Such systems often utilize unmanned aerial systems (UAS) and a variety of onboard/ground-piloted aircraft.

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

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

**Visual Glide Slope Indicator (VGSI)** – A projected series of lights (typically red or white) that provide visual information to pilots concerning approach slope information. Generally, this also includes PAPI systems that are arranged as four light boxes perpendicular to the edge of the given runway.

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

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

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

**Vertical Take Off and Landing (VTOL)** – Capability of some aircraft that allows them to ascend/descend directly (hovering) without the need for traditional runways for takeoff and departure

Well Wishers (WW) - Non-passenger terminal populace associated with departing passengers

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

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

**Zoning** – Partitioning of land parcels in a community by ordinance into zones and the establishment of regulations in the ordinance to govern the land use and the location, height, use and land coverage of buildings within each zone

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

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