GLOSSARY OF TERMS

Airport planning and the Environmental Impact Statement (EIS) process require the use of many technical terms. Some of the most important are defined in this section. Terms in ***bold italics*** are defined separately in this glossary.

Air Route Traffic Control Center (ARTCC or Center) - A ***Federal Aviation Administration*** facility established to provide ***air traffic control*** service to aircraft operating on ***Instrument Flight Rules*** flight plans within controlled airspace during the enroute portion of flight.

Air Traffic Control (ATC) - A service operated to promote the safe, orderly, and expeditious flow of air traffic.

Airport Traffic Control Tower (ATCT) - An ***air traffic control*** facility that has been established on an airport to provide for safe, orderly, and expeditious flow of traffic on and in the vicinity of the airport.

Aircraft Rescue and Fire-Fighting (ARFF) - The department at an airport dedicated to protecting life and property, controlling fire hazards, and performing general duties related to ***airport operations*** and aircraft safety.

Airman's Information Manual (AIM) - A publication containing basic flight information and ***air traffic control*** procedures, designed primarily as a pilot's information and instructional manual for use in the ***National Airspace System***.

Airport Elevation - The highest point on an airport's usable runways, expressed in feet above ***mean sea level***.

Airport Improvement Program (AIP) - A Federal funding program for airport improvements. AIP is periodically reauthorized by Congress with funding appropriated from the Aviation Trust Fund. Proceeds to the Trust Fund are derived from excise taxes on airline tickets, aviation fuel, etc.

Airport Layout Plan (ALP) - A scaled drawing of existing and proposed land and facilities necessary for the operation and development of the airport. The ALP shows boundaries and proposed additions to all areas owned or controlled by the airport operator for airport purposes, the location and nature of existing and proposed replacement airport facilities and structures, and the location on the airport of existing and proposed non-aviation areas and improvements thereon.

Airport Operations - Takeoffs (departures) and landings (arrivals) from an airport.

Airport Reference Code (ARC) - A coding system used to relate airport design criteria to the operational and physical characteristics of the ***design aircraft*** intended to operate at the airport (i.e. the most critical aircraft type currently using, or projected to use, an airport, with a minimum of 500 operations per year. Can either be one aircraft or a group of aircraft). The first component of the ARC is a capital letter (A, B, C, or D with "A" being the lowest, and "D" being the highest), which refers to the aircraft approach speed in its landing configuration. The second component, which is depicted by a Roman numeral (I, II, III, IV, V, or VI with "I" being the lowest and "VI" being the highest), refers to aircraft wingspan. Together, the two components relate aircraft operational and physical characteristics to the required design criteria of various airport components, such as runway/taxiway widths, runway to taxiway separation standards, and obstacle clearance items. Under this methodology, safety margins are provided in the physical design of airport facilities.

Airport Surveillance Radar (ASR) - A radar system which allows air traffic controllers to identify an arriving or departing aircraft's distance and direction from an airport.

Airway - A corridor of ***controlled airspace*** whose centerline is established by radio ***navigational aids***. Low altitude airways (between 3,000 and 18,000 feet ***mean sea level***) are identified by number with the letter V as a prefix. High altitude airways (above 18,000 feet ***mean sea level***) are known as Jet airways and are identified by number with the letter J as a prefix.

Ambient Noise - The total sum of noise from all sources in a given place and time. This is also known as ***Existing Ambient Noise.*** See also ***Natural Ambient Noise***.

Approach Light Systems (ALS) - A series of lights that assists the pilot when aligning aircraft with the extended runway centerline on ***final approach***.

Area Navigation (RNAV) - A method of navigational procedures designed to transition aircraft between an airport environment and the ***enroute system*** of airspace. RNAV procedures offer the advantages of routings that save time and fuel, reduce dependence on radar vectoring, altitude, and speed assignments, which allows for reduction in required radio transmissions with ***air traffic control***, and more efficient use of airspace.

Attenuation - Acoustical phenomenon whereby sound energy is reduced between the noise source and the receiver. This energy loss can be attributed to atmospheric conditions, terrain, vegetation, other natural features, and man-made features (e.g., sound insulation).

A-Weighted Sound (dBA) - A system for measuring ***sound*** energy that is designed to represent the response of the human ear to sound. Energy at frequencies more readily detected by the human ear is more heavily weighted in the measurement, while frequencies less well detected are assigned lower weights. A-weighted sound measurements are commonly used in studies where the human response to sound is the object of the analysis.

Azimuth - An arc of the horizon measured between a fixed point (such as true north) and the vertical circle passing through the center of an object.

Base leg - A flight path at right angles to the approach of a runway end. It usually extends from the downwind leg to the intersection of the extended runway centerline. See ***Traffic Pattern***.

Building Restriction Line (BRL) - A line drawn on an ***airport layout plan*** that distinguishes between areas that are suitable for buildings and areas that are unsuitable. The BRL is drawn to exclude the ***runway protection zones***, which are the runway visibility zones required for clear line of sight from the ***airport traffic control tower***, and all airport areas with a clearance of less than 35 feet (10.5 meters) beneath the ***Federal Aviation Regulations*** Part 77 surfaces.

Clean Air Act, as amended In 1990 (CAA) - Serious efforts to control air pollution began in California in the 1950s in response to the southern coast's increasingly worsening smog problem. By the 1960s the U.S. Government began significant and continuing regulatory efforts to reduce emissions. As the nation's air quality continued to deteriorate, Congress passed the Clean Air Act of 1963. This Act has evolved through four major revisions, the most recent being the Amendments of 1990. The result of these ongoing efforts is an evolving ambient air pollution control strategy based on the ***National Ambient Air Quality Standards*** and a provision that states would develop implementation plans to meet and maintain the standards.

Commuter Aircraft - Commuter aircraft range from small ***turboprop*** aircraft with 19 or fewer seats to ***Regional Jets*** with up to 70 seats. Although Regional Jets that seat up to 90 passengers are sometimes referred to as "commuter jets" because they tend to serve the same types of markets as smaller jets, they cannot be operated by ***Federal Aviation Regulations*** Part 135 commuter carriers.

Contour - See ***Noise Contour***.

Controlled Airspace - Airspace of defined dimensions within which ***air traffic control*** service is provided in accordance with the airspace classification. Controlled airspace is designated as Class A, Class B, Class C, Class D, or Class E. Aircraft operators are subject to certain pilot qualifications, operating rules, and equipment requirements as specified in ***Federal Aviation Regulations*** Part 91, depending upon the class of airspace in which they are operating.

Council on Environmental Quality (CEQ) - Regulations that implement the ***National Environmental Policy Act*****.**

Crosswind leg - A flight path at right angles to the approach runway end off of its upwind end.

Current Condition - The ***existing condition*** or conditions prior to future development, which serve as a foundation for analysis.

Day-Night Average Sound Level (DNL) - A noise measure used to describe the average ***sound*** level over a 24-hour period, typically an average day over the course of a year. In computing DNL, an extra weight of 10 ***decibels*** is assigned to noise occurring between the hours of 10:00 p.m. and 7:00 a.m. to account for increased annoyance when ***ambient noise*** levels are lower and people are trying to sleep. DNL may be determined for individual locations or expressed in noise contours.

dBA - See *A-weighted Sound Level*

Decibel (dB) - ***Sound*** is energy and is measured by its pressure. Because of the enormous range of sound pressures to which the human ear is sensitive, the raw sound pressure measurement is converted to the ***decibel*** scale for purposes of description and analysis. The ***decibel*** scale is logarithmic. A 10-***decibel*** increase in ***sound*** is perceived as a doubling of sound (or twice as loud) by the human ear.

Design Aircraft - The most critical aircraft type currently using, or projected to use, an airport, with a minimum of 500 operations per year. It can either be one aircraft or a group of aircraft. See also ***Airport Reference Code (ARC)***.

Displaced Threshold - A threshold that is located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold may be available for takeoffs in both directions and landings from the opposite direction.

Distance Measuring Equipment (DME) - A flight instrument that measures the line-of-sight distance of an aircraft from a navigational radio station in ***nautical miles.***

Easement - The legal right of one party to use part of the rights of a piece of real estate belonging to another party. This may include, but is not limited to, the right of passage over, on or below the property; certain air rights above the property, including view rights; and the rights to any specified form of development or activity.

Emissions and Dispersion Modeling System (EDMS) - is the FAA-required and EPA-approved computer model for estimating air emissions and pollutant concentrations from airport-specific sources, such as aircraft engine, ground support equipment, on-board auxiliary power units, and training fires for the ***Aircraft Rescue and Firefighting Facility***. First developed in the mid-1980s, EDMS is one of the few computer models specifically engineered for the aviation community. The model also offers the capability to model other emissions sources not specific to airports, such as motor vehicles and stationary sources, such as fuel storage tanks and heating plants.

Enplanements - The number of passengers boarding an aircraft at an airport.

En Route System - That part of the ***National Airspace System*** where aircraft are operating between origin and destination airports.

En Route Control - The control of ***Instrument Flight Rules*** traffic en route between two or more adjacent approach control facilities.

Environmental Assessment (EA) - A concise document that assesses the environmental impacts of a proposed Federal action. It discusses the need for, and environmental impacts of, the proposed Federal actions and alternatives. An environmental assessment should provide sufficient evidence and analysis for a Federal determination whether to prepare an ***Environmental Impact Statement*** or issue a ***Finding of No Significant Impact***. Public participation and consultation with other Federal, state, and local agencies is a cornerstone of the EA process.

Environmental Impact Statement (EIS) - An detailed, concise document that provides a discussion of the significant environmental impacts which would occur as a result of a proposed Federal action, and informs decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts. Public participation and consultation with other Federal, state, and local agencies is a cornerstone of the EIS process.

Equivalent Sound Level (Leq) - The ***A-weighted*** energy average sound level experienced over a given period of time. The metric is expressed as 10 times the log of the total noise energy divided by the number of seconds during the period under consideration.

Existing Airport Study Area - See ***Study Area: Existing Airport***.

Existing Ambient Noise - See ***Ambient Noise.*** See also ***Natural Ambient Noise***.

Existing Condition - See ***Current Condition***.

Federal Aviation Administration (FAA) - The FAA is the Federal agency responsible for ensuring the safe and efficient use of the nation's airspace, for fostering civil aeronautics and air commerce, and for supporting the requirements of national defense. The activities required to carry out these responsibilities include: safety regulations, airspace management, the operation and maintenance of a system of ***air traffic control*** and navigation facilities, research and development in support of the fostering of a national system of airports, promulgation of standards and specifications for civil airports, administration of Federal grants-in-aid for developing public airports, various joint and cooperative activities with the Department of Defense; and technical assistance (under State Department auspices) to other countries.

Federal Aviation Regulations (FAR) - The body of Federal regulations relating to aviation; published as Title 14 of the Code of Federal Regulations.

Final Approach - A flight path that follows the extended runway centerline. It usually extends from the ***base leg*** to the runway.

Finding of No Significant Impact (FONSI) - If, following the preparation of an ***environmental assessment***, the responsible Federal agency determines a proposed Federal action would not result in any significant environmental impact, a FONSI is issued by the Federal agency. A FONSI is a document briefly explaining the reasons why an action would not have a significant effect on the human environment and for which an ***Environmental Impact Statement***, therefore, is not necessary.

Fixed-Base Operator (FBO) - A business located on the airport that provides services such as hangar space, fuel, flight training, repair, and maintenance to airport users.

Fleet Mix - The mix or differing types of aircraft operating in a particular environment.

Flight Tracks - The use of established routes for arrival and departure by aircraft to and from the runways at the airport.

FMS/GPS - Flight Management System/ ***Global Positioning System*** equipment onboard an aircraft capable of using various radio navigation and/or ***Global Positioning System*** routes to guide the aircraft.

Frequency Spectrum - A standard frequency spectrum is made up of 12 octave bands, representing acoustic wave length ranges, centered from 20 Hz to 3000 GHz. A source of sound can have many different frequencies mixed together. Each frequency stimulates a different length receptor in our ears. When only one wave length is dominant, we hear a pure tone, while other sounds are made up of a combination of frequencies. When displayed in graphical form, the magnitude of the sound pressure level at each frequency comprises a *frequency spectrum*. In some instances, more detailed information is needed than what the octave band analysis will give. Narrower bands, such as one-third octave bands, are selected for such an analysis.

Glide Slope - Provides vertical guidance for aircraft during approach and landing and consists of electronic components emitting signals, which provide vertical guidance by reference to airborne instruments during instrument approaches such as ***Instrument Landing System***; or visual ground aids such as ***Visual Approach Slope Indicator***, which provide vertical guidance for ***visual flight rules*** approach; or for the visual portion of an ***instrument approach*** and landing.

Geographic Information Systems (GIS) - An information system that is designed for storing, integrating, manipulating, analyzing, and displaying data referenced by spatial or geographic coordinates.

Global Positioning System (GPS) - A system of 24 satellites used as reference points to enable navigators equipped with GPS receivers to determine their latitude, longitude, and altitude.

Grid Analysis - A type of aircraft noise analysis that evaluates the noise levels at individual points rather than through generation of ***noise contours***.

Ground Effect - Noise ***attenuation*** attributed to absorption or reflection of noise by man-made or natural features on the ground surface.

Hub - An airport that services airlines that have ***hubbing*** operations.

Hubbing - A method of airline scheduling that times the arrival and departure of several aircraft in a close period of time in order to allow the transfer of passengers between different flights of the same airline in order to reach their ultimate destination. Several airlines may conduct hubbing operations at an airport.

Infill - Urban development occurring on vacant lots in substantially developed areas; may also include the redevelopment of areas to a greater density.

Initial Area of Investigation - A specific area of study for this ***Environmental Impact Statement*** that was delineated for the purpose of conducting preliminary aircraft noise impact analyses upon public lands in relation to the proposed replacement airport at St. George. These public lands include national forests, wilderness areas, national parks and recreation areas, national monuments, state parks, and Native American lands. The initial area of investigation is centered on the proposed ***replacement airport site*** and extends approximately 40 ***nautical miles*** to the north and south and 44 ***nautical miles*** to the east and west for a total area of approximately 9,200 square miles, covering portions of southwestern Utah, northwestern Arizona, and southeastern Nevada. Zion National Park, Cedar Breaks National Monument, and Pipe Springs National Monument, along with those wilderness areas and wilderness study areas in the immediate vicinity of these resources, are included in the initial area of investigation. (See also ***Study Area: Existing Airport***, ***Study Area: Proposed Replacement Airport***, and ***Study Area: Zion National Park***.)

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

Instrument Flight Rules (IFR) - That portion of the ***Federal Aviation Regulations*** (14 CFR 91) specifying the procedures to be used by aircraft during flight in ***Instrument Meteorological Conditions.*** These procedures may also be used under visual conditions and provide for ***positive control*** by ***Air Traffic Control***. (See also ***Visual Flight Rules)***.

Instrument Landing System (ILS) - An electronic system installed at some airports which helps to guide pilots to runways for landing during periods of limited visibility or adverse weather.

Instrument Meteorological Conditions (IMC) - Weather conditions expressed in terms of visibility, distance from clouds, and cloud ceilings during which all aircraft are required to operate using ***Instrument Flight Rules (IFR)***.

Integrated Noise Model (INM) - A computer model developed, updated, and maintained by the ***Federal Aviation Administration*** to predict the noise exposure generated by aircraft ***operations***.

Integrated Noise Model V6.2b - The latest version of **INM**, which has not been released, for public use ar the time of this publication of this Final EIS. This version of INM is in the beta testing and was used for the audibility analysis, in **Appendix T**, of this Final EIS.

Itinerant Operation - An aircraft flight that ends at an airport different from where it began.

Knots - Airspeed measured as the distance in ***nautical miles*** (6,076.1 feet) covered in one hour. (Approximately equal to 1.15 miles per hour.)

Land Use Compatibility - The ability of land uses surrounding the airport to coexist with airport-related activities with minimum conflict.

Landing and Takeoff (LTO) Cycle - The time that an aircraft is in operation at or near an airport. An LTO cycle begins when an aircraft starts its ***final approach*** (arrival) and ends after the aircraft has made its climb-out (departure).

Ldn - See ***DNL***. Ldn is used in place of DNL in mathematical equations only.

Leq - See ***Equivalent Sound Level***.

Local Operation - An aircraft flight that begins and ends at the same airport.

Localizer - The component of an ***Instrument Landing System*** that provides lateral course guidance to the runway.

Loudness - The subjective assessment of the intensity of ***sound***.

Maximum Noise Level (LAmax) - The maximum sound pressure for a given event adjusted toward the frequency range of human hearing.

Mean Sea Level (MSL) - The average height of the surface of the sea for all stages of the tide; used as a reference for elevations; also called sea level datum.

Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) - A lighting system installed at some airports that pilots use during ***instrument approaches*** to align the aircraft with the centerline of the runway. Steady-burning white lights are used to create a reference plane and white strobe lights create a sequential flash pattern that rolls toward the ***runway threshold,*** which is marked by steady-burning green lights. Varying intensity settings allow the approach to be used under changing weather conditions.
Military Operations Area (MOA) - Airspace established to separate or segregate certain non-hazardous military activities from ***Instrument Flight Rules*** traffic and to identify for ***Visual Flight Rules*** traffic where these activities are conducted.

Missed Approach - A prescribed procedure to be followed by aircraft that cannot complete an attempted landing at an airport.

National Airspace System (NAS) - The common network of U.S. airspace, air navigation facilities, equipment, services, airports, or landing areas; aeronautical charts, information, and services; rules, regulations, and procedures; technical information, manpower, and materials, all of which are used in aerial navigation.

National Ambient Air Quality Standards (NAAQS) - The U.S. Environmental Protection Agency established primary standards for criteria pollutants intended to protect public health, and secondary standards for the protection of other aspects of public welfare, such as preventing materials, crop, and vegetation damage, and assuring good visibility.

National Environmental Policy Act of 1969 (NEPA) - The original legislation establishing the environmental review process for proposed Federal actions.

National Historic Preservation Act of 1966 (NHPA) - This legislation requires that projects that occur on Federal lands, are funded by Federal monies, or that require a Federally-issued permit, be evaluated for their impacts to historic properties.

Nautical Mile - A measure of distance equal to one minute of arc on the earth's surface (6,076.1 feet or 1,852 meters).

Natural Ambient Noise - ***Existing Ambient Noise***, minus manmade sounds. In the case of Zion National Park, the natural ambient noise also includes noise associated with roadways through the park. See also ***Ambient Noise*** and ***Existing Ambient Noise***.

NAVAIDs (Navigational Aids) - Any facility used by an aircraft for navigation.

Navigational Fix - A geographical position determined by reference to one or more radio navigational aids.

Noise Abatement - A measure or action that minimizes the amount of impact of noise on the environs of an airport. Noise abatement measures include aircraft operating procedures and use or disuse of certain runways or ***flight tracks***.

Noise Contour - A map representing average annual noise levels summarized by lines connecting points of equal noise exposure.

Nondirectional Beacon (NDB) - A beacon transmitting non-directional signals whereby the pilot of an aircraft equipped with direction finding equipment can determine the bearing to and from the station. When the radio beacon is installed in conjunction with the ***Instrument Landing System*** marker, it is normally called a compass locator.

Nonprecision Approach - A standard ***instrument approach*** procedure providing runway alignment but no ***glide slope*** or descent information.

Operation - A takeoff or landing by an aircraft.

Outer Fix - An ***air traffic control*** term for a point in the airspace from which aircraft are normally cleared to the approach fix or ***final approach*** course.

Outer Marker (OM) - An ***Instrument Landing System*** navigation facility in the terminal area navigation system located four to seven miles from the runway edge on the extended centerline indicating to the pilot that he/she is passing over the facility and can begin ***final approach***.

Positive Control - The separation of all air traffic within designated airspace as directed by ***air traffic controllers***.

Precision Approach Path Indicator (PAPI) - Provides visual approach slope guidance to aircraft during an approach. It is similar to a ***Visual Approach Slope Indicator*** but provides a sharper transition between the colored indicator lights.

Precision Approach Procedure - A standard ***instrument approach*** procedure in which an electronic ***glideslope***/glidepath is provided (e.g., ***Instrument Landing System*** and ***Precision Approach Radar***).

Precision Approach Radar (PAR) - Navigational equipment located on the ground adjacent to the runway, consisting of one antenna, which scans the vertical plane, and a second antenna, which scans the horizontal plane. The PAR provides the controller with a picture of the descending aircraft in ***azimuth***, distance, and elevation, permitting an accurate determination of the aircraft's alignment relative to the runway centerline and the ***glide slope***.

Profile - The position of the aircraft during an approach or departure in terms of altitude above the runway and distance from the runway end.

Propagation - ***Sound*** propagation is the spreading or radiating of sound energy from the noise source. It usually involves a reduction in sound energy with increased distance from the source. Atmospheric conditions, terrain, natural objects, and manmade objects affect sound propagation.

Proposed Project Site - See ***Replacement Airport Site***.

Proposed Replacement Airport Study Area - See ***Study Area: Proposed Replacement Airport***.

Public Use Airport - An airport open to public use without prior permission, and without restrictions within the physical capabilities of the facility. It may or may not be publicly owned.

Record of Decision (ROD) - The official notice of the ***Federal Aviation Administration***'s findings after review of a final ***Environmental Assessment*** or ***Environmental Impact Statement***.

Regional Jet (RJ) - A jet aircraft typically, but not exclusively, operated by a ***commuter*** air carrier ranging in size from approximately 35 to 80 seats. Regional Jets were introduced in the early 1990s as 50 seat aircraft but their popularity with airlines and passengers resulted in aircraft manufacturers extending their product lines to include jets currently ranging from 35 to 90 seats. There are new generation Regional Jets currently under production that will have 100 seats.

Reliever Airport - An airport which, when certain criteria are met, relieves the aeronautical demand on a busier air carrier airport.

Replacement Airport Site - Includes all property identified as the site for the proposed replacement airport. Also, see ***Study Area: Proposed Replacement Airport***.

Retrofitted Aircraft - An aircraft originally certified as ***Stage 2*** that has been modified to meet ***Stage 3*** requirements. This includes both modification of engines or the replacement of engines to meet the ***Stage 3*** standard.

RNAV - See ***Area Navigation.***

Run-up - A routine procedure for testing aircraft systems by running one or more engines at a high power setting. Engine run-ups are normally conducted by airline maintenance personnel checking an engine or other on board systems following maintenance.

Runway End Identifier Lights (REIL) - Two synchronized flashing lights, one on each side of the ***runway threshold***, which identify the approach end of the runway.

Runway Protection Zone (RPZ) - An area, trapezoidal in shape and centered about the extended runway centerline, designated to enhance the safety of aircraft operations. It begins 200 feet beyond the end of the area usable for takeoff or landing. The RPZ dimensions are functions of the aircraft, type of operation, and visibility minimums. (Formerly known as the clear zone).

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

Runway Threshold - The beginning of that portion of the runway usable for landing.

Scoping - Scoping is an early and open process for determining the scope or range of issues to be addressed in the ***Environmental Impact Statement*** and identifying the significant issues related to a proposed Federal action. Issues important to the public and local, state, and Federal agencies are solicited through direct mailing, public notices, or meetings. Scoping is generally conducted before development of the ***Environmental Impact Statement*** scope of work.

Single event - One noise event. For many kinds of analysis, the sound from single events is expressed using the ***Sound Exposure Level*** metric.

Slant-range distance - The distance along a straight line between an aircraft and a point on the ground.

Sound - Sound is the result of vibration in the air. The vibration produces alternating bands of relatively dense and sparse particles of air, spreading outward from the source in the same way as ripples do on water after a stone is thrown into it. The result of the movement is fluctuation in the normal atmospheric pressure or sound waves.

Sound Exposure Level (SEL) - A standardized measure of a ***single (sound) event***, expressed in ***A-weighted decibels***, that takes into account all sound above a specified threshold set at least 10 ***decibels*** below the maximum level. All sound energy in the event is integrated over one second.

Special Use Airspace - Airspace of defined dimensions identified by an area on the earth's surface wherein activities must be confined because of their nature and/or wherein limitations may be imposed upon aircraft operations, which are not part of those activities.

Stage 2 Aircraft - Aircraft that meet the noise levels prescribed by ***Federal Aviation Regulations*** Part 36, which are less stringent than those established for the quieter ***Stage 3*** designation. The Airport Noise and Capacity Act required the phase-out of all Stage 2 aircraft over 75,000 pounds by December 31, 1999, with the potential for case-by-case exceptions through the year 2003.

Stage 3 Aircraft - Aircraft that meet the most stringent noise levels set in ***Federal Aviation Regulations*** Part 36.

Standard Instrument Departure Procedure (SID) - A planned ***Instrument Flight Rules*** **air traffic control** departure procedure published for pilot use in graphic and textual form. SIDs provide transition from the terminal to the enroute ***air traffic control*** structure.

Standard Terminal Arrival Route (STAR) - A planned ***Instrument Flight Rules air traffic control*** arrival procedure published for pilot use in graphic and textual form. STARs provide transition from the en route ***air traffic control*** structure to an ***outer fix*** or an ***instrument approach*** fix in the terminal area.

Statute Mile - A measure of distance equal to 5,280 feet.

Study Area: Existing Airport - One of the three study areas identified for detailed environmental investigation as part of this ***Environmental Impact Statement***. This study area is smaller in scale than the ***initial area of investigation*** to accommodate the more detailed analysis of the No-Action Alternative and redevelopment of the existing airport property. The study area includes all existing airport property and a larger rectangular area centered on the existing airport property, approximately 3.9 ***statute miles*** east to west and 4.7 ***statute miles*** north to south. (See also ***Study Area: Proposed Replacement Airport*** **and** ***Study Area: Zion National Park.*****)**

Study Area: Proposed Replacement Airport - One of the three study areas identified for detailed environmental investigation as part of this ***Environmental Impact Statement***. This study area is smaller in scale than the ***initial area of investigation*** to accommodate the more detailed analysis of construction and development-related impacts that would result from the proposed replacement airport. The study area includes all property identified as the site for the proposed replacement airport and a larger rectangular area centered on the proposed replacement airport site, extending 6.5 ***statute miles*** east to west and 8.0 ***statute miles*** north and south. (See also ***Study Area: Existing Airport*** and ***Study Area: Zion National Park.*****)**

Study Area: Zion National Park - An area that **i**ncludes all land within the Zion National Park boundary. One of the three study areas identified for detailed environmental investigation as part of this ***Environmental Impact Statement***. (See also ***Study Area: Existing Airport*** and ***Study Area: Proposed Replacement Airport***.)

TACAN - Tactical Air Navigation. A navigational system used by the military. TACAN provides both ***azimuth*** and distance information to a receiver on board an aircraft.

Terminal Area Forecast (TAF) - The official forecast of aviation activity at ***Federal Aviation Administration*** facilities. These forecasts are prepared to meet the budget and planning needs of the ***Federal Aviation Administration*** and provide information for use by state and local authorities, the aviation industry, and the public. Facilities monitored include: FAA towered airports, Federally-contracted towered airports, non-Federal towered airports, and non-towered airports.

Terminal Radar Approach Control (TRACON) - A ***Federal Aviation Administration air traffic control*** facility which uses radar and two-way communication to provide separation of air traffic within a specified geographic area in the vicinity of one or more airports.

Terminal Radar Service Area (TRSA) - Airspace surrounding certain airports where ***air traffic control*** provides radar ***vectoring,*** sequencing, and separation on a full-time basis for all ***instrument flight rules*** and participating ***visual flight rules*** aircraft.

Time Above (TA) - The amount of time that ***sound*** exceeds a given ***decibel*** level during a 24-hour period (e.g., time in minutes that the sound level is above 75 ***decibels***).

Turbojet - An aircraft powered by a jet turbine engine. The term is customarily used in ***air traffic control*** for all aircraft, without propellers, that are powered by variants of jet engines, including turbofans.

Turboprop - An aircraft powered by a jet turbine engine that drives a propeller. Aircraft of this type are typically used by airlines on short routes between two relatively close locations.

Traffic Pattern - The traffic flow for aircraft landing and departure at an airport. Typical components of the traffic pattern include: ***upwind leg***, ***crosswind leg***, ***downwind leg***, ***base leg***, and ***final approach***.

UNICOM - A non-government communication facility, which may provide airport information at certain airports. Aeronautical charts and publications show the locations and frequencies of UNICOMs.

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

Vector - Compass heading instructions issued by ***air traffic control*** in providing navigational guidance by radar.

Very High Frequency Omnidirectional Range (VOR) Station - A ground-based radio navigation aid transmitting signals in all directions. A VOR provides ***azimuth*** guidance to pilots by reception of electronic signals.

Very High Frequency Omnidirectional Range Station with Tactical Air Navigation (VORTAC) - A navigational aid providing ***VOR azimuth*** and ***Tactical Air Navigation*** *distance measuring equipment* at one site.

Visual Approach - An approach conducted on an ***Instrument Flight Rules*** flight plan, which authorizes the pilot to proceed visually and clear of clouds to the airport.

Visual Approach Slope Indicator (VASI) - A visual aid for final approach to the ***runway threshold***, consisting of two wing bars of lights on either side of the runway. Each bar produces a split beam of light - the upper segment is white, the lower is red.

Visual Flight Rules (VFR) - Rules and procedures specified in ***Federal Aviation Regulations*** Part 91 for aircraft operations under visual conditions. Aircraft operations under VFR are not generally under ***positive control*** by ***Air Traffic Control***. The term VFR is also used in the U.S. 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 a type of flight plan.

Visual Meteorological Conditions (VMC) - Weather conditions expressed in terms of visibility, distance from cloud, and cloud ceiling equal to or greater than those specified in ***Federal Aviation Regulations*** Part 91.155 for aircraft operations under ***Visual Flight Rules***.

Yearly Day-Night Average Sound Level - see ***DNL***.

Zion National Park Study Area - See ***Study Area: Zion National Park***

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