APPENDIX A – GLOSSARY OF TERMS

Ambient Noise – Background sound levels

Decibel (dBA) – A logarithmic unit in which aircraft sound is measured. This scale (A-weighted decibels) was developed to measure sound in a manner that approximates the way people hear it. This scale assigns more weight to frequencies that people hear more easily. Zero decibels is the lowest sound audible to humans, while 120 decibels is painfully loud.

Federal Aviation Administration (FAA) – The FAA is the federal agency responsible for construction and operation of the National Airspace System and the facilities that are part of the system. The FAA specifies how a Part 150 study is conducted.

Flight Tracks – On-ground projections of the path that an aircraft follows as it arrives or departs an airport.

Hushkitting – The treatment or modification of an aircraft engine to suppress noise levels in order to convert a Stage 2 noise level type engine into a Stage 3 noise level type engine. Modifications for this conversion vary by aircraft and engine type and may include treatments such as reshaping or insulating nacelles (engine casings), adding baffles, or modifying fan blades or ductwork.

Integrated Noise Model (INM) – FAA computer simulation model used to generate aircraft noise contours.

DNL – DNL represents the average sound levels over a 24-hour period and is the metric identified by the FAA for use in Part 150 studies. It is the dBA logarithmically averaged over a 24-hour period with a 10-dBA penalty applied to operation at night. Because the DNL is based on a logarithmic scale, the addition of the 10 dBA penalty means each night time operation is modeled the same as 10 identical daytime operations.

Logarithmic – The decibel is a logarithmic scale. Unlike a linear scale, the value on a logarithmic scale cannot be directly added. For example, if two 60 dBA sounds are coming from the same direction, the combination of the sounds would represent 63 dBA, not 120 dBA.

Mitigation – The reduction of aircraft sound in a noise-sensitive area.

Modeling – Use of the FAA's computer simulation model to generate average annual aircraft noise contours.

Monitoring – The measurement of actual sound levels at locations in the community using a sound level analyzer.

Noise – Any unwanted sound.

Noise Compatibility Program – One of the products of a Part 150 study. The program identifies recommended noise control and land use mitigation strategies and necessary implementation measures.

Noise Contour – A line drawn on a map that connects points of equal noise exposure.

Noise Exposure Map – One of the products of a Part 150 study. The map presents aircraft noise contours and identifies the incompatible land uses affected by the contours. Noise exposure maps are prepared for the existing case and a five-year projection.

Part 150 – Federal Aviation Regulation Part 150 outlines the requirements for conducting aircraft noise and land use compatibility studies. Studies conducted in compliance with these regulations are often called Part 150 studies.

Preferential Flight Tracks – Flight tracks that are designed to go over relatively undeveloped or noise-compatible land uses.

Preferential Runway Use Program (PRP) – A program or combination of programs generally designed to direct less aircraft to runways that are oriented toward fewer noise-sensitive uses.

Sound Exposure Level (SEL) – The sound level associated with a single aircraft fly-over. This measurement is used in the DNL calculations.

Stage 3 – Federal Aviation Regulation Part 36 specifies allowable noise levels for civil subsonic aircraft. Newer generation, quieter aircraft such as the MD80, 737-300, 400 and 500 series, 757s, and 767s are identified as Stage 3 aircraft by FAR Part 36.

Run-up – A maintenance procedure that involves the testing of aircraft engines and power settings.