Lambert’s Noise Compatibility Success

LAMBERT AIRPORT HAS SUCCESSFULLY IMPLEMENTED the Voluntary Acquisition Program (now complete), the Residential Sound Insulation Program, and the Limited Easement Program approved by the FAA in the 1997 Part 150 Study. By doing so, the Airport will have mitigated all eligible residential units within the 65 DNL noise exposure contour. The implementation of the Residential Sound Insulation Program will continue for all eligible property owners who applied to participate as of March 1, 2009. The yellow-bounded areas on the map above delineate the program areas.

The previously approved program will be completed based on Section 189 of Vision 100 amended 49 U.S.C. section 47504(b), formerly Section 104 of the Aviation Safety and Noise Abatement Act (ASNA), new subsection (b) (4). While this legislation precludes FAA approval of recommended NCP measure to mitigate noise outside of a 65 DNL noise contour, if the measures require Airport Improvement Program (AIP) funds, Section 189 does not halt AIP funding for measures previously approved under Part 150 and does not affect contiguous parcels to complete a project area. Therefore, the Sound Insulation Program as originally approved as Measure S.2.2 of the 1997 Part 150 Study will finish to completion concurrently with the FAA acceptance and approval of this 2010 NEM/NCP update.

This study represents the culmination of a collaborative effort between the St. Louis Airport Authority (STLAA), local community officials, and the public. Lambert continually monitors its Part 150 program and updates the program when conditions warrant ensuring that noise and land use impacts are reduced to the fullest extent possible. It is the goal of STLAA to ensure that Lambert remains a first class airport to provide convenient flight options, serves as a generator of economic growth for the region and continues its mission of being a good neighbor to the surrounding communities.
Executive Summary

SINCE THE LATE 1990s, a number of aviation industry events and trends have affected operating conditions and noise levels at Lambert, including:

• The increased use of smaller, regional jets (aircraft with 35 to 90 seats)
• American Airlines’ acquisition of Trans World Airlines (TWA) and the subsequent reduction in hub operations
• The relocation of the 131st Fighter Wing of the Missouri Air National Guard (MOANG)

The latter two events have led to decreased aviation activity at Lambert Airport since 2001 (see the graph of Historic and Forecasted Aircraft Operations at right). As that figure shows, operating levels at Lambert Airport in the future are projected to grow at a moderate pace, with total operations being much lower than those seen in the mid- to late-1990s.

Landings and Take-Offs have significantly decreased at Lambert

NOISE EXPOSURE MAPS (NEMs)

Noise Exposure Maps (NEMs) were prepared for both Existing Conditions (for the year 2010) and for Future Conditions (for the year 2015). The overall size of the noise contours were found to be smaller than those in the 1997 Noise Compatibility Study due to the events and trends listed above. In addition, the phase out of older, louder aircraft in commercial airline fleets has reduced noise levels.

NOISE COMPATIBILITY PROGRAM (NCP)

Like the NEMs, the Noise Compatibility Program (NCP) is a product of the Part 150 Study. An NCP is a planning tool that is used to develop a plan for noise abatement. The NCP recommends measures that can be taken to reduce noise impacts on the surrounding areas. These measures include, but are not limited to:

• Noise Abatement Measures
• Land Use Measures
• Program Management Measures

NOISE ABATEMENT MEASURES

Noise abatement measures focus on actions to reduce noise at the source. The overall size of the noise contours at Lambert has been reduced.

source: The existing noise abatement measures in place at Lambert were found to be effective in reducing noise impacts in the vicinity of the Airport. Two changes were recommended by the new NCP:

• Reduce the air traffic control measures to minimize noise
• Increase the noise abatement measures to include current procedures for Runway 11-29

These changes were found to produce optimal noise benefits that will likely result in noticeable changes in noise levels at the Airport.

flight corridors for east flow and west flow operations at Lambert are shown on page 3 of this report. Aircraft arrivals are shown in green, and departures are shown in blue. The Lambert noise abatement measures are summarized on page 6.

LAND USE MEASURES

Land Use Measures focus on actions to mitigate noise on land whose uses are compatible with aircraft noise and are classified into two categories: remedial (actions such as acquisition and sound insulation to correct or reduce existing uses of land that are incompatible with noise levels) and preventative (actions to control or restrict or discourage the development of new uses of land that are incompatible with noise levels). The Lambert land use management measures are based on the previously approved Part 150 land use management measures.

With Lambert’s successful implementation of remedial land use measures (the Voluntary Acquisition Program, the Residential Sound Insulation Program, and the Land Easement Program) and with the reduction in the size of the 65 DNL noise exposure contour for existing and future conditions, no new significant noise impacts were identified. Thus, the provisions of Lambert’s previous noise mitigation programs should be sufficient.

PROGRAM MANAGEMENT MEASURES

Program Management Measures include administrative and management actions to enhance the STAA’s ability to respond to public concerns about aircraft noise and overflights, as well as to work closely with land use management agencies to maintain compatibility between the airport and development in the airport vicinity.

FAA RECORD OF APPROVAL (ROA)

The Federal Aviation Administration (FAA) issued the Record of Approval (ROA) for Lambert’s 2010 Part 150 study on August 26, 2011. The ROA approved all NCP Recommendations as described on pages 6 and 7.
### 2015 65-70 DNL Noise Exposure Contour

<table>
<thead>
<tr>
<th>Housing Units</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>107</td>
<td>291</td>
</tr>
<tr>
<td>Participated in Sound Insulation Program</td>
<td>17</td>
</tr>
<tr>
<td>Participated in Limited Avigation Easement Program</td>
<td>3</td>
</tr>
<tr>
<td>Ineligible for Sound Insulation Program</td>
<td>46</td>
</tr>
<tr>
<td>Did Not Respond or Declined to Participate In Any Program</td>
<td>41</td>
</tr>
</tbody>
</table>

#### Noise-Sensitive Public Facilities

- Schools: 0
- Churches: 3
- Libraries: 0
- Hospitals: 0
- Nursing Homes: 0

#### Future (2015) NEM CONTOUR AREA (sq. miles)

<table>
<thead>
<tr>
<th>Contour Range</th>
<th>Total Area</th>
<th>Area on Lambert Property or Noise Redevelopment Area*</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-70 DNL</td>
<td>0.94</td>
<td>0.87</td>
</tr>
<tr>
<td>70-75 DNL</td>
<td>0.94</td>
<td>0.87</td>
</tr>
<tr>
<td>75+ DNL</td>
<td>0.86</td>
<td>0.86</td>
</tr>
<tr>
<td>TOTAL 65+DNL</td>
<td>4.02</td>
<td>4.02</td>
</tr>
</tbody>
</table>

*Noise redevelopment areas include NorthPark and Hazelwood Logistics Center

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**Future 2015 (NEM) Noise Exposure Map**

[Map showing noise exposure zones and contour ranges]
Noise Compatibility Program

NCP Recommendations

Noise Abatement Measures: Daytime Procedures

MEASURE NA-1 – Runway 6-24 Daytime Use: Between the hours of 6:00 a.m. and 11:00 p.m., Runway 6-24 will be used as needed to prevent air traffic delays.

PART RESPONSIBLE FOR IMPLEMENTATION

STL FAA ACT, FAA TTS TRACON, AIRCRAFT OPERATORS, STLAA

Noise Abatement Measures: Nighttime Procedures

MEASURE NA-2 – Daytime Departure Closures: Between the hours of 6:00 a.m. and 11:00 p.m., all commercial airline and military jets departing from runway 26L, 34R, and 300 runway headings that align with 300-degree or 330-degree tracks with turns at 3,500 feet MSL or 5 nautical miles from the end of the runway. Commercial airline and military jets departing from Runways 27L and 27R, runway headings that align with 135-degree or 225-degree headings with turns at 1,400 feet MSL or 3 nautical miles from the east end of the runway. Commercial airline and military jets departing from Runway 11L, runway headings that align with 105-degree, 135-degree, or 135-degree tracks with turns at 3,000 feet MSL or 5 nautical miles from the end of the runway.

STL FAA ACT and FAA TTS TRACON

Additional Noise Abatement Measures

MEASURE NA-3 – Prohibit Nighttime Full Power Aircraft Engine Runup: Between the hours of 1:00 a.m. and 6:00 a.m., aircraft engine test runups are prohibited without prior authorization from the Airport Operations/Communications Center. When authorized, runups are to be conducted to the field. Aircraft will align on a heading of 135 degrees into the prevailing wind direction. Maximum power runups are limited to a duration of two minutes.

MEASURE NA-4 – Runway 6-24 Nighttime Use: Between the hours of 1:00 a.m. and 6:00 a.m., Runway 6-24 will not be used for commercial airline or military jet operations except under unusual or extraordinary circumstances.

MEASURE NA-5 – Nighttime Departure Closures: Between the hours of 1:00 a.m. and 6:00 a.m., commercial airline and military jets departing from runway 11L, 12R, 13R, 13F runway headings that align with runway heading tracks with turns at 3,000 feet MSL or 3 nautical miles from the end of the runway, commercial airline and military jets departing from Runways 30L and 25V, runway headings that align with 300-degree tracks with turns at 4,000 feet MSL or 3 nautical miles from the east of the runway.

MEASURE NA-6 – Distant Noise Abatement Departure Procedures: Commercial airline jets will follow Distant Noise Abatement Departure Procedures as outlined in FAA Advisory Circular 156-53A.

Program Management Measures

MEASURE PM-1: Aircraft Monitoring System: An integrated monitoring system, which combines noise measurements and flight data recording, is recommended to assist the airport and FAA/AC/ATT personnel in the continued implementation of the operational strategies.

MEASURE PM-2: Community Forums: A forum for the exchange of information regarding airport operations and noise issues. The membership of this forum would include FAA/AC/ATT, the elected mayors of the official elected governing body and the noise authorities to make policy decisions and adopt policies regarding local and national compatibility and other related policies.

MEASURE PM-3: Noise Exposure Map or Noise Compatibility Program Update: Airport management will review and update the NEM on the website www.stlouis-airport.com whenever necessary.

LOCAL JURISDICTIONS: The jurisdictions that surround the Lambert-St. Louis International Airports include bi-counties, St. Louis County, and 12 other incorporated municipalities: Wildwood, Ellisville, St. Peter, Brentwood, Town and Country, Oakville, Kirkwood, Affton, and St. Louis. Residents of these municipalities may contact one of the following local government agencies to discuss local noise issues.

Noise Abatement Measures

Land Use Measures

MEASURE LU-1: Conduct comprehensive planning policies to ensure that incompatible land use and aircraft noise levels do not develop within an area that poses significant levels of aircraft noise, as outlined in Appendix A of the MREC Report, "Noise Exposure Maps," Table 1-Land Use Compatibility With Nearby Day-Night Average Sound Levels.

MEASURE LU-2: Implement a Discretionary Review policy to provide for the coordinated review of potentially noise-sensitive developments and to facilitate communication among the local jurisdictions surrounding the Lambert-St. Louis International Airport and the St. Louis Regional Airport Authority (SLRA).

MEASURE LU-7: Adopt general use permit for the provision of a process, rules, and regulations that allow for implementation and enforcement of the land use plan for the purpose of achieving optimal development that promotes public health, safety, and welfare through compatibility with aircraft noise levels.

MEASURE LU-8: The STLA will work with local jurisdictions to adopt noise overlay zoning to supplement the general plan zoning to account for future property owners, the environmental impacts from airport overflight and the nearby airport and/or commercial development from occurring within the zone without proper notice and documentation according to its compatibility with aircraft operations.

MEASURE LU-9: Amend the building code, as necessary, to ensure that future noise sensitive areas will be constructed with interior noise levels compatible with aircraft noise.

MEASURE LU-10: Encourage the development of future incompatible land uses where no other course of action would ensure that the airport would not continue to develop in the NMZ.

MEASURE LU-11: Implement a noise disclosure program to ensure that potential property owners are fully informed of the noise-related issues and requirements to reduce noise impacts or reduce noise sensitivity of new development.

MEASURE LU-12: Amend subdivision regulations to ensure that development is planned and designed to reduce noise impacts or reduce noise sensitivities of new development.

MEASURE LU-13: Encourage the use of Transfer of Development Rights (TDR) where appropriate to benefit land owner and develop in the NMZ. Transfer of development rights would transfer the development rights from one tract of land to another through a mutual transaction. Future development of the parcel from which the rights are transferred shall be restricted and the purchase of the development rights may assign to different parcels to gain additional density.

MEASURE LU-14: Implement/Update Capital Improvement Programming to consider the compatibility between airport noise and new land uses when zoning and locating future infrastructure improvements within the capital improvements planning process, resulting in the development of services that will lead to the development of incompatible use.
Mitigation Programs
Lambert’s Noise Compatibility Success

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This study was prepared pursuant to the requirements set forth by Title 14 of the Code of Federal Regulations (14CFR) Aeronautics and Space, Chapter I – Federal Aviation Administration (FAA), Department of Transportation, Part 150—Airport Noise Compatibility Planning.

The approval of the NCP by the Federal Aviation Administration (FAA) does not commit the FAA or the St. Louis Airport Authority (STAAA) to the costs or the implementation schedule listed in this document. The information provided here is a planning tool to assist the STAAA and other municipal departments as well as the FAA to implement the NCP measures that are ultimately approved by the FAA in its Record of Approval (ROA).

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For additional information contact: Lambert St. Louis International Airport
Noise Management Department
(314) 551-5025 | www.flystl.com

LAMBERT ST. LOUIS INTERNATIONAL AIRPORT efficiently serves the traveling public and is mindful of being a good neighbor to nearby communities. Critical to attaining that goal is the Airport’s continual understanding of how aircraft noise impacts its neighbors.

Executive Summary

Lambert has prepared its new Part 150 Noise Compatibility Study Update to document existing and projected noise levels around the Airport. This study has also identified strategies to reduce the impacts of noise and to discourage new uses of nearby land that are not compatible with aircraft noise. This Executive Summary highlights the study’s findings.

This study is part of Lambert Airport’s long history of implementing noise abatement efforts that began in 1980 with the St. Louis Airport Environs Plan. That study was conducted in conjunction with neighboring municipalities, and it recommended noise abatement and land use mitigation measures designed to improve noise compatibility around the Airport. With the enactment of federal requirements in 1984, Lambert initiated a Part 150 Noise Compatibility Study to update the measures of the Airport Environs Plan. After a 1996 Master Plan Update recommended the construction of a new, third parallel runway, a second Part 150 Noise Compatibility Study was prepared in 1997. The foundation for the current study was laid in the early 2000s when Lambert established plans to conduct a new Noise Compatibility Study once the new runway was operational. Lambert routinely updates the Noise Compatibility Program to maintain currency and ensure local needs are being addressed.

Lambert Airport, as a “good neighbor,” will complete the sound insulation of eligible residential structures.

14 CFR Part 150 Noise Exposure Map Update and Noise Compatibility Program Update

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St. Louis Airport Authority