

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.

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

St. Louis Airport Authority



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 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 list 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 Compatible Program (NCP) is a product of the Part 150 study. An NCP recommends measures that an airport can take to abate or mitigate the impact of noise on nearby areas. The recommended NCP measures for this new Lambert study are organized into three categories: *Noise Abatement Measures*, *Land Use Measures*, and *Program Management Measures*.

NOISE ABATEMENT MEASURES

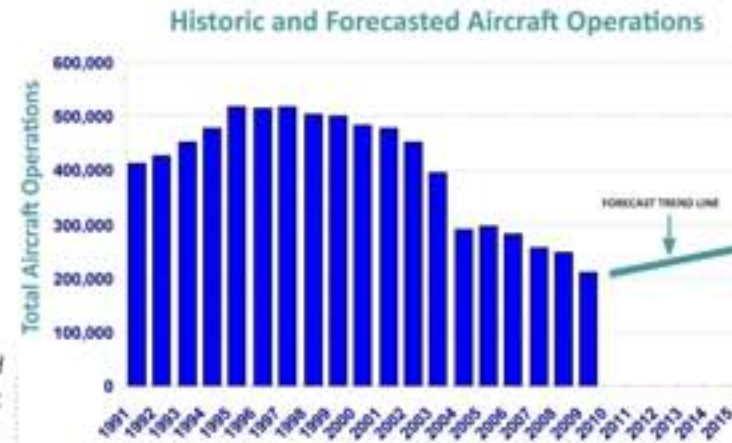
Noise abatement measures focus on actions to reduce noise at the

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:

- Remove the air traffic control measures to maximize west flow
- Update the NCP terminology to include current procedures for Runway 11-29

These two changes were found to produce optimal noise benefits that will likely result in no noticeable change in noise or aircraft operations. "Flows" refer to the general direction aircraft fly into and out of Lambert. Flows change with wind direction. "West flow" means aircraft land from the east and take off to the west. The



flight corridors for east flow and west flow operations at Lambert are shown on page 3. 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 incompatible with aircraft noise and are classified into two categories: remedial (actions such as acquisition and sound insulation to correct or remediate existing uses of land that are incompatible with noise levels), and preventative (land use controls to restrict or discourage the development of new uses of land that are incompatible with noise levels). The Lambert land use management measures are based, in part, on the previously approved Part 150 land use management measures. With Lambert's successful implementation of remedial land uses measures (the Voluntary Acquisition Program, the Residential Sound Insulation Program, and the Limited 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, per the provisions of Lambert's previous noise mitigation programs, the incompatible land uses within the 2015 NEM are considered mitigated.

PROGRAM MANAGEMENT MEASURES

Program Management Measures include administrative and management actions to enhance the STLAA's ability to respond

All eligible land uses in the 65+ DNL have been mitigated or were offered and declined mitigation from Lambert's existing noise mitigation programs

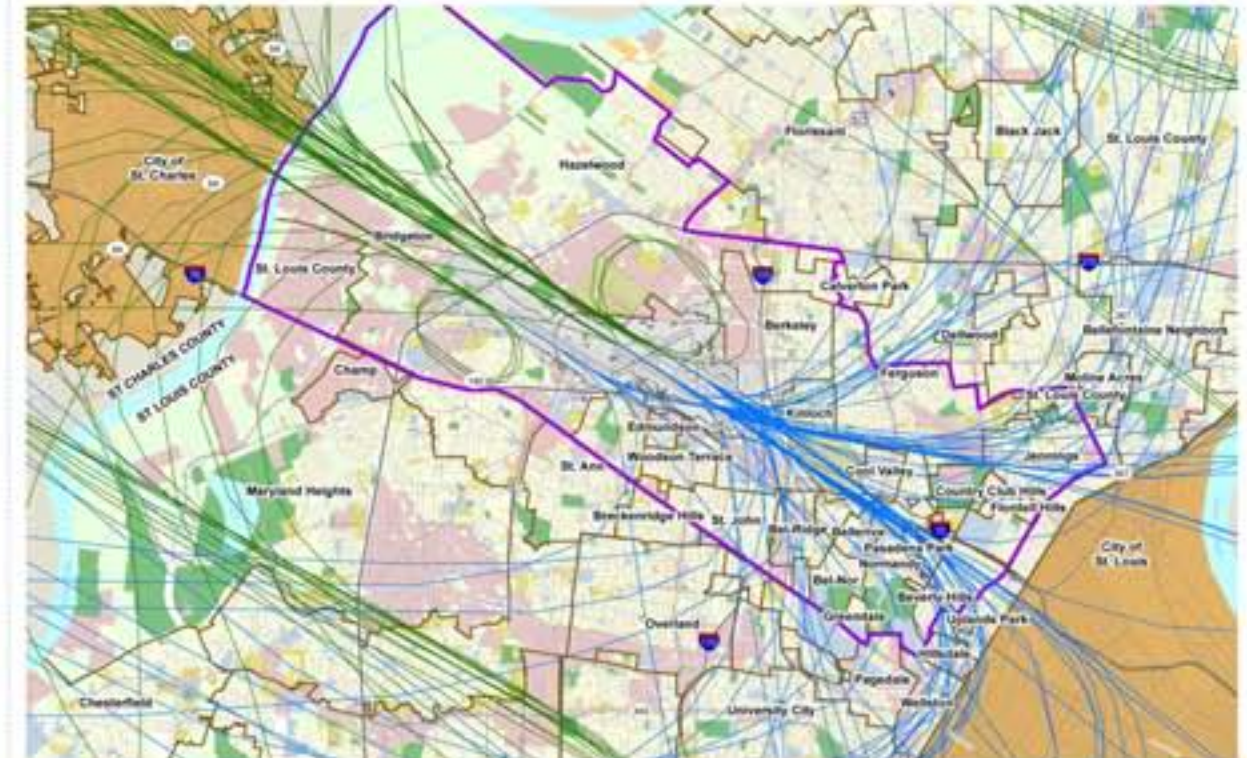
to public concerns about aircraft noise and overflights, as well as to work closely with land use management agencies to maintain compatibility between the airport and development in the airport environs.

FAA RECORD OF APPROVAL (ROA)

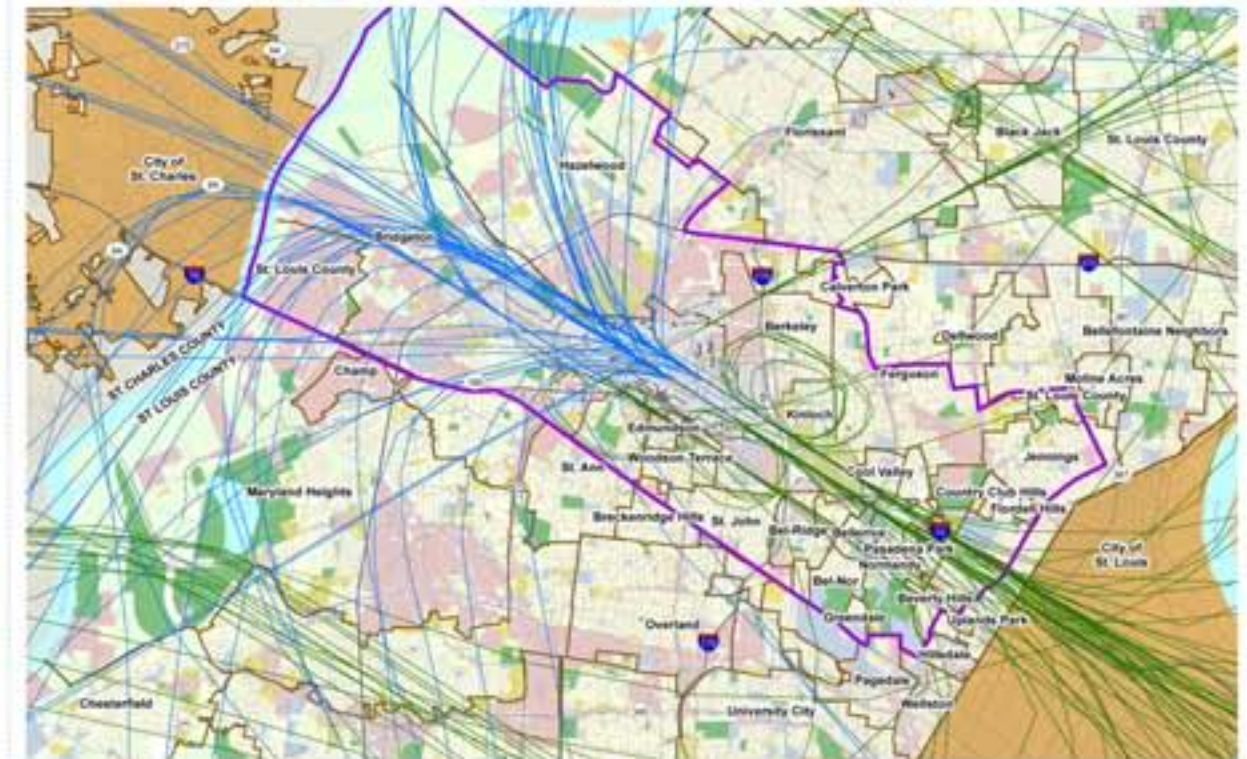
The Federal Aviation Administration (FAA) issued the Record of Approval (ROA) for Lambert's 2010 Part 150 Study on August 26, 2011. The FAA ROA approved all NCP Recommendations as described on pages 6 and 7.



Typical East Flow Flight Corridors

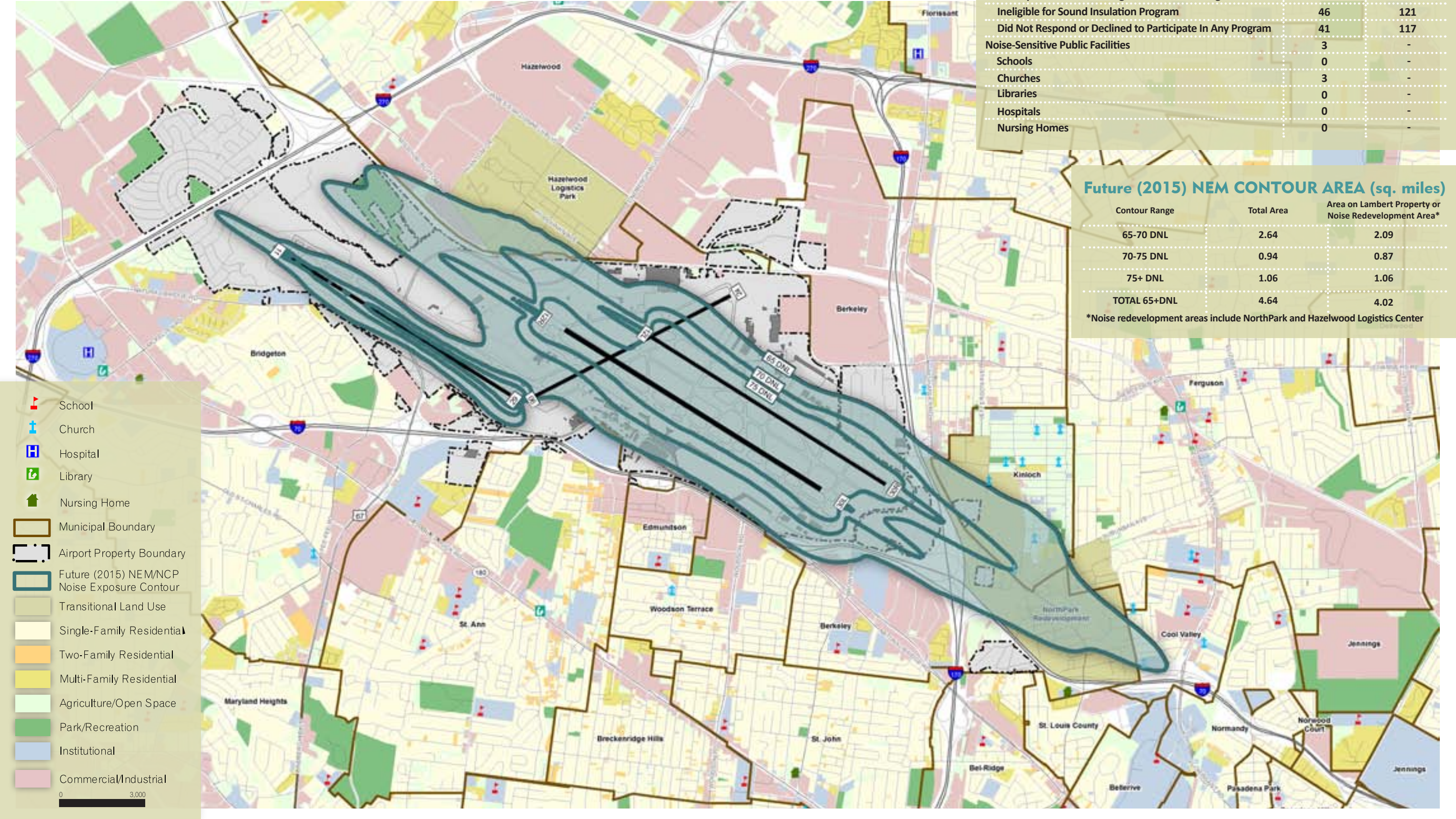


Typical
West Flow
Flight
Corridors



Future 2015 (NEM)

Noise Exposure Map



NCP Recommendations

Noise Abatement Measures: Daytime Procedures

MEASURE

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.

MEASURE NA-2 – Daytime Departure Corridors: Between the hours of 6:00 a.m. and 11:00 p.m., commercial airline and military jets departing from runways 29, 30L, and 30R fly headings that align with 305-degree or 335-degree tracks with turns at 2,500 feet MSL or 5 nautical miles from the end of the runway. Commercial airline and military jets departing from Runways 12L and 12R fly headings that align with 100-degree or 120-degree tracks with turns at 2,500 feet MSL or 5 nautical miles from the end of the runway. Commercial airline and military jets departing from Runway 11 fly headings that align with 100-degree, 120-degree, or 135-degree tracks with turns at 2,500 feet MSL or 5 nautical miles from the end of the runway.

PARTY RESPONSIBLE FOR IMPLEMENTATION

STL FAA ATCT, FAA T75 TRACON, AIRCRAFT OPERATORS, STLAA

STL FAA ATCT AND FAA T75 TRACON

Noise Abatement Measures: Nighttime Procedures

MEASURE NA-3 – Prohibit Nighttime Full-Power Aircraft Engine Runups: Between the hours of 11:00 p.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 on Echo Pad. Aircraft will align on a heading of 135 degrees or into the prevailing wind direction. Maximum power runups are limited to duration of two minutes.

MEASURE NA-4 – Runway 6-24 Nighttime Use: Between the hours of 11:00 p.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 Corridors: Between the hours of 11:00 p.m. and 6:00 a.m., commercial airline and military jets departing from runways 11, 12L, 12R, and 30R fly headings that align with runway heading tracks with turns at 4,000 feet MSL or 3 nautical miles from the end of the runway. Commercial airline and military jets departing from Runways 30L and 29 fly headings that align with 305-degree tracks with turns at 4,000 feet MSL or 3 nautical miles from the end 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 91-53A.

STLAA AND STL FAA ATCT

STL FAA ATCT, FAA T75 TRACON, AIRCRAFT OPERATORS, AND STLAA

STL FAA ATCT AND FAA T75 TRACON

AIRCRAFT OPERATORS AND STLAA

Additional Noise Abatement Measures

MEASURE NA-7 – Quiet Push-back Procedures: Commercial airline jets will be pushed back from the terminal gates using aircraft tractors. Power backs using aircraft engines are not permitted.

Measure NA-8 – Commercial Jet Aircraft Intercept Final Approach No Closer Than 4 Nautical Miles From Arrival Runway End: Arriving commercial airline jets will intercept the final approach course no closer than four (4) nautical miles from the arrival runway end.

Measure NA-9 – Airline Notification: The STLAA will provide air carriers with scheduled service at Lambert Airport with information concerning the existing practices for full power maintenance runups and terminal pushbacks. The STLAA will also encourage the use of the distant noise abatement departure procedure.

STLAA AND AIRCRAFT OPERATORS

FAA T75 TRACON AND AIRCRAFT OPERATORS

STLAA



NCP Recommendations

Land Use Measures

MEASURE LU-5: Adopt comprehensive planning policies to ensure that incompatible land use does not develop within areas exposed to significant levels of aircraft noise, as outlined in Appendix A to 14 CFR Part 150—Noise Exposure Maps, Table 1—Land Use Compatibility With Yearly Day-Night Average Sound Levels.

MEASURE LU-6: Implement a Discretionary Review process 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 Airport Authority (STLAA).

MEASURE LU-7: Adopt general purpose/compatible use zoning to provide a process, rules, and regulations that allows 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 STLAA will work with local jurisdictions to adopt noise overlay zoning to supplement the general purpose zoning to inform existing and future property owners of the possible noise impacts from aircraft overflight and the nearby airport and to constrain development from occurring within the zone without proper notice and documentation regarding its compatibility with aircraft operations.

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

MEASURE LU-10: Preclude the development of future incompatible land use when no other course of action will ensure that incompatible residential uses do not continue to develop within the DNL 65 dB or greater contour.

MEASURE LU-11: Implement a noise disclosure program to ensure that potential purchasers of property are fully informed about noise-related issues resulting from proximity to the airport and areas of aircraft noise exposure and overflight.

MEASURE LU-12: Amend subdivision regulations to ensure that land is platted and developed to minimize noise impacts or reduce noise-sensitivity of new development.

MEASURE LU-13: Encourage the use of Transfer of Development Rights (TDR) where appropriate to benefit land use compatibility. Transfer of development rights would transfer the development rights from one tract of land to another through a market transaction. Future development of the parcel from which the rights are transferred is then permanently restricted, and the purchaser of the development rights may assign them to a different parcel to gain additional density.

MEASURE LU-14: Implement/update capital improvement programming to consider the compatibility between airport noise and new land uses when sizing and locating future infrastructure improvements within the capital improvements planning process, seeking to avoid the development of services that will lead to the development of incompatible uses.

LOCAL JURISDICTIONS

STLAA AND LOCAL JURISDICTIONS

LOCAL JURISDICTIONS

LOCAL JURISDICTIONS AND STLAA

LOCAL JURISDICTIONS AND STLAA

STLAA

LOCAL JURISDICTIONS AND STLAA

LOCAL JURISDICTIONS AND STLAA

LOCAL JURISDICTIONS AND STLAA

LOCAL JURISDICTIONS AND STLAA

Program Management Measures

MEASURE PM-1: Aircraft Monitoring System: An integrated monitoring system, which combines noise measurements and flight track surveying, is recommended to assist the Airport and FAA ATCT personnel in the continued implementation of the operational strategies.

MEASURE PM-2: Community Forum: A forum for the exchange of information regarding airport operations and noise issues. The membership of this Forum would be staff from the STLAA and the elected mayor or the official elected designee having the authority to make policy decisions and adopt policies regarding local land use compatibility and other related policies.

Measure PM-3: Noise Exposure Map or Noise Compatibility Program Update: Airport management will review and update the NEMs only or update the NEMs and NCP when necessary.

STLAA

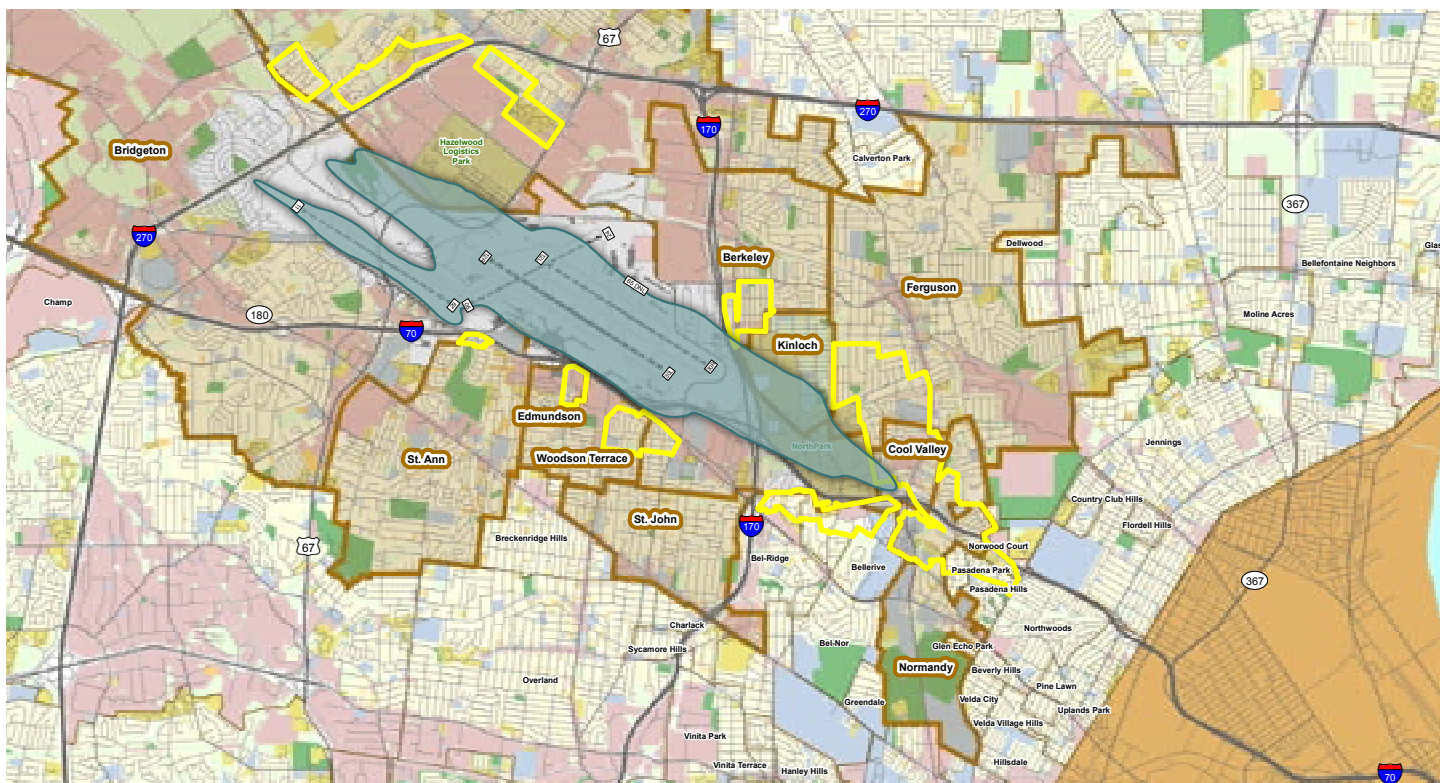
STLAA

STLAA



LOCAL JURISDICTIONS: The jurisdictions that surround the Lambert-St. Louis International Airport include, but may not be limited to: the cities of Bellerive, Bel-Ridge, Berkeley, Beverly Hills, Bridgeton, Cool Valley, Country Club Hills, Edmundson, Ferguson, Flordele Hills, Hazelwood, Kinloch, Glen Echo Park, Greendale, Normandy, Norwood Court, Northwoods, Pasadena Hills, Pasadena Park, St. Ann, St. John, Woodson Terrace, St. Charles, Velda Village, and St. Charles County and St. Louis County. (Officials from all jurisdictions were invited to participate in Advisory Committee meetings)

Note: Implementation by local jurisdictions is at their discretion. Measures LU-1 through LU-4 have been or are soon to be completed and are therefore not included in this table.



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 5.2.2 of the 1997 Part 150 Study will finish to completion concurrently with the FAA acceptance and approval of this 2010 NEM/NCP update.

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

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.



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