

Case Study: Louisville Airport Kentucky

The Louisville International Airport is run by the Louisville Regional Airport Authority (LRAA) an autonomous municipal corporation that was established by Kentucky State Statute. It is responsible for owning, operating, and developing Louisville International Airport and Bowman Field. The airport and Bowman field are the largest employment centers in Louisville. Louisville is also the third largest all-cargo airport in the U.S. by landed weight according to 2009 FAA figures. This is one of the larger hubs for Fed-Ex and UPS. In 2009, air cargo carriers carried 2,213,984,399 lbs in total cargo. Out of this UPS Cargo's total was 2,168,011,921 lbs and Federal Express was 36,918.090 lbs (LRAA Stats, December 2009).

FAA PART 150 COMPLIANCE

Since 1995, Louisville has completed a FAA Part 150 study and has developed multiple noise exposure maps. In 2001, development of a Part 150 noise compatibility program began and the Noise Compatibility Study Group (made up of over a 1000 members) spent approximately a year and a half reviewing and updating the program. The FAA found the Part 150 study to be in compliance in November 2003 and, in May 2004, approved many of the recommendations included in the Noise Compatibility Program.

COMMUNITY NOISE FORUM (CNF)

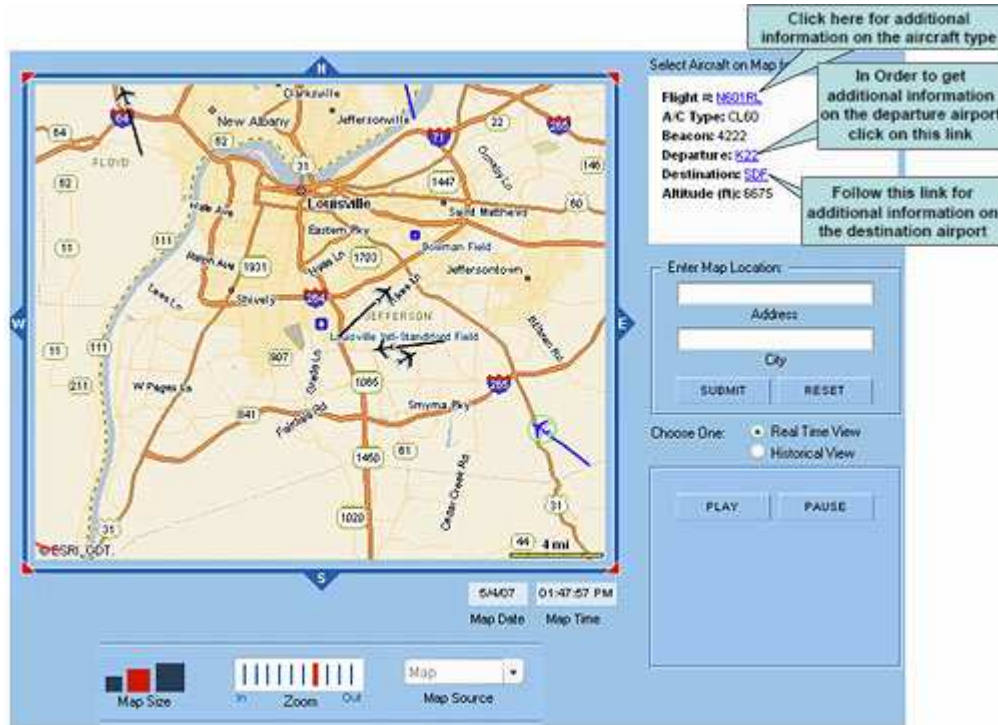
To monitor the implementation of the Noise Compatibility Program, the LRAA convened a Community Noise Forum (CNF) in March 2003 that includes designated representatives from all airport stakeholders, including:

- LRAA Board of directors, management, and air traffic control staff.
- Louisville Airport Affairs Committee
- Kentucky Air National Guard
- UPS
- Generational Aviation Community
- University of Louisville
- Louisville MPO
- Airport Neighbors Alliance
- Community representatives from each quadrant bounding the airport

The CNF is responsible for monitoring the implementation of the program, as well as tracking noise issues and concerns and to provide other guidance in this area. Its charter can be seen in Appendix A. The CNF's website can be found [here](#).

Other components developed as a consequence of the Noise Compatibility Program are noise exposure maps, as well as installation of a web-based system that tracks aircraft operations at their airports. It can be found by accessing either <http://www.flylouisville.com/About-the-Airport/Flight-Track.aspx> or its direct link at: <http://www.webscene.info/webscene/ksdf/>

FIGURE 1: LOUISVILLE INTERNATIONAL AIRPORT'S FLIGHT TRACKING SYSTEM



This tool allows viewers to see in near real-time the movement of flights and air traffic patterns within the region.

RELOCATION PROGRAMS

Another major initiative that LRAA has developed is the aircraft-noise residential acquisition and [relocation program](#). This began after the airport was expanded in 1988 on the old Standiford Field Airport. However, as a consequence of this development many residential houses would be impacted. The airport improvement program, which was approved by the FAA in 1991 included relocation of more than 1581 home in 3 specific areas, as well as 100 business properties. The airport also gave another 136 homeowners the opportunity to participate in the Voluntary Residential Relocation Program (VRRP).

In 1993 these programs switched their focus, and became a noise-related relocation program as opposed to merely an airport-expansion relocation program under the auspices of the Part 150 Plan. This allowed residents within the airport's 65 DNL (day night average sound level) to be eligible for relocation. The initial request relocated 673 families in Ashton Adair and Edgewood. In 1995 LRAA requested a change of focus from sound insulation to acquisitions in the Minors Lane area, which extended the relocation by an additional 1,064 families. The FAA approved this expansion program in 1997 and added 268 more families in Edgewood, which brought the total number of homes approved for acquisition in the VRRP to 2159.

The LRAA relocation areas can be seen in Figure 2 below.

FIGURE 2: LRAA RELOCATION AREAS



However, according to the LRAA, the success of relocation created another set of problems: namely the reduction of comparable homes in a reasonable price category in the local real estate market available for families in the airport-area families. Because of the reduction in available real estate, the price of homes in that price category rose faster than other homes in the market.

LRAA realized that without a way to create comparable replacement housing, the noise mitigation program would have been unable to relocate as many families.

The LRAA and the FAA created another program to address this complication. In 1997-98 a FAA Innovative Financing Grant of \$10 million, matched with \$10 million by LRAA purchased and developed infrastructure on a 287- acre site under which LRAA reimburses families who built new homes in what was called Heritage Creek. This occurred as the City of Minor Lane Heights was granted statutory authority in 1999 by the Kentucky General Assembly to move its city away from the airport, and annex Heritage Creek's area for its new city.

Currently the VRRP has two distinct components:

1. Traditional purchase program.
2. Heritage Creek Program.

In either case, families are offered an opportunity to move from their noise-affected homes. Vacated homes are then demolished.

By 2009 Louisville had relocated 3,663 families to quieter neighborhoods through its Louisville Airport Improvement Program and VRRP. These programs have allowed the airport to expand, and the neighborhood to be reused for airport, city, and state benefit.

- Land in Prestonia, Highland Park and Standiford was deeded to the Kentucky Exposition Center (KEC).
- The former Standiford neighborhood is now part of the 'new airfield' and houses the FBO - Atlantic Aviation, corporate hangars, and the Kentucky Air National Guard Base.
- Highland Park contains the Authority's maintenance facility and fuel farm; the Untied States Postal Service airmail facility; rental car facilities; and approximately 70 acres available for future airport expansion or airport-compatible business development.
- All of the LRAA-owned land in Ashton Adair is under the control of, and is being deeded to, the KEC.
- Edgewood will be redeveloped for commercial and industrial uses. The Minors Lane area is subject to redevelopment as part of the Renaissance Zone, in which it is located.
- Three smaller parcels along the Preston Street corridor not identified on the map. The area near McDonald's, on Phillips Lane, are slated for future use by the KEC.
- An area south of Value City will be retained by the airport.
- The northernmost area-Jefferson Court-will be made available for reuse (LRAA, Relocation).

SOUND INSULATION PROGRAM

As part of the airport's Part 150 Noise Compatibility program, in 2007 the LRAA determined (in conjunction with the FAA) that certain homes around the north side of the airport were eligible for complimentary sound insulation improvements to minimize aircraft noise within their homes.

Under Part 150 the airport and the FAA fund the entire cost of the retrofits. Because the LRAA's Noise Compatibility Program is in compliance, the LRAA qualifies for grants. Aviation user fees and aircraft fuel sales comprise the lion's share of the federal portion of the grant. Airport user fees are used to underwrite the LRAA's share of the program costs.

The LRAA created the Quieter Home Program to administer these improvements. Details about the program can be found at the program's website: <http://www.flylouisville.com/About-the-Airport/Environmental/-Aircraft-Noise/Quieter-Home.aspx>. As part of the program, LRAA also made the decision to make this project environmentally friendly. This was achieved through the use of energy efficient treatments for windows, doors, insulation and new HVAC units. In addition, the program will recycle or re-use the materials replaced. The program set up a project house which allows visitors to see how the sound insulation improvements work.

The FAA determines eligibility for the program based upon the level of aircraft noise that impacts a home. These homeowners are then notified by mail.

Appendix A

QUIETER HOME® PROGRAM SUMMARY

Introduction: The Federal Aviation Administration (FAA) has determined that certain homes around the airport are eligible for complimentary, sound insulation improvements to minimize aircraft noise inside the home. The Louisville Regional Airport Authority (LRAA), working with the FAA and C&S Engineers, has created the QuieterHome® Program to administer these improvements.

The LRAA also is committed to making this project environmentally friendly. The use of energy efficient treatments, from windows and doors to insulation and new HVAC units, will reduce the energy used. In addition, the program will recycle or re-use the materials replaced.

Throughout the contractor-bidding phase, there is a Disadvantaged Business Enterprise (DBE) priority program to encourage minority-owned businesses to participate.

How It Works: The program offers eligible participants complimentary, sound-insulation improvements to reduce aircraft-generated noise within the home. The improvements may include new acoustical windows, prime doors, attic and wall insulation and, in certain cases, a new heating, ventilation and air conditioning system (HVAC). These improvements will allow homeowners to enjoy quieter living within their home while sleeping, watching television, talking on the phone and interacting with family and friends.

Program Funding: The FAA and the LRAA fund the entire cost. The LRAA qualifies (and regularly applies) for federal funds for the program from the FAA's Airport Improvement Program. FAA funding is from aviation user fees, such as airline tickets and aircraft fuel sales. The airport user fees pay for the LRAA's share of the program cost. No general tax dollars are used to pay for this program.

Program Timeline: The LRAA and the C&S team, which includes several local consultants, have been working on the QuieterHome® program since 2007. The project house opened in June, 2009.

Eligibility: The FAA determines eligibility based on the level of aircraft noise impacting the home. [Homeowners eligible](#) for the Louisville QuieterHome® Program will be notified through the mail.

C&S Engineers: C&S Engineers, a recognized leader in the sound-insulation industry, was chosen to administer the Louisville QuieterHome® Program through a competitive bidding process in 2007. Since 1968, the C&S Companies have earned a solid reputation for quality engineering, architectural and construction services. They have successfully completed—or are in the process of working on—16 similar residential sound insulation programs in cities including Boca Raton, Cleveland, Cincinnati, Detroit and San Diego. C&S also is working with several local consultants to implement the QuieterHome Program, including: Godsey & Associates (architectural design), Mathis & Sons (construction inspection), Micro-Analytics (environmental), Peritus Public Relations (community outreach), and Seiller Waterman, LLC (agreements & easements).



Project House: The QuieterHome® Program has set up a project house to allow visitors to see and hear firsthand just how well the sound-insulation improvements work. The project house, located at 3034 Larue Court, Louisville, KY, is open to the public from 8:00 a.m. to 5:00 p.m.

Contact Us: If you have additional questions, or would like more information, please contact the Quieter Home® Program's project manager toll-free at (866) 345-4445 or louisvilleqhp@cscos.com.