CINCINNATI MUNICIPAL - LUNKEN AIRPORT NOISE ABATEMENT

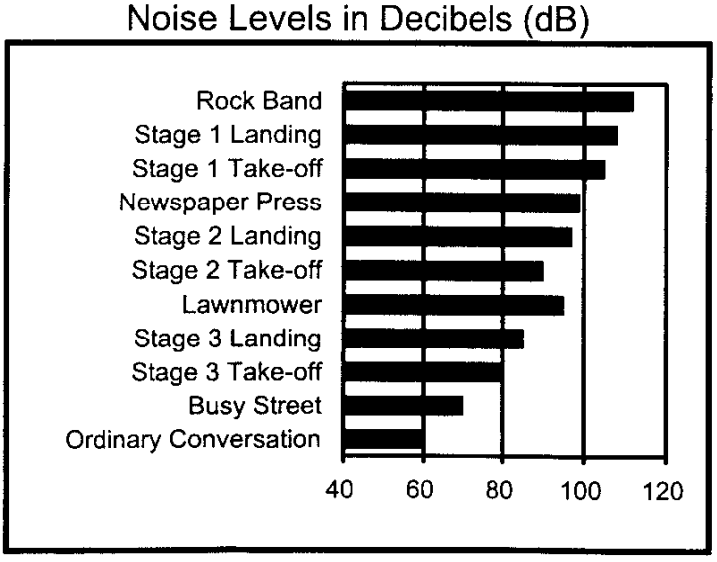
"Working together for a better quality of life"

The Cincinnati Municipal - Lunken Airport (CMLA) is dedicated to being a good neighbor as we strive to maintain a positive economic impact on the surrounding community ($235 million in 1998.) As a good neighbor, we are also concerned about the impact of noise on the community.

WHAT IS NOISE?

Defining noise is often very subjective because people have different levels of tolerance to sound. A loud radio may be disturbing to one person, while barely bothering someone else. Most environmental sounds we hear have sound levels of 30 to 100 decibels. The loudest sounds are 120 decibels and above.

The Federal Aviation Administration (FAA) classifies jet aircraft noise into three categories: Stage 1, Stage 2, and Stage 3, with Stage 1 being the noisiest. The chart below gives examples of common sounds and the relationship to the sound levels produced by various stages of jet aircraft.



FREQUENTLY ASKED AIRCRAFT NOISE QUESTIONS:

Question: *How does the Airport determine which runway to use?*

Answer: *Wind direction determines which runway will be active. Aircraft will take-off and land into the wind for safety purposes. The wind helps to slow the aircraft ground speed on approach and landing, making it easier to control and reduces the landing roll distance. On take-off, the wind helps pilots attain flying speed sooner, which allows pilots to clear obstacles and attain higher altitude quicker before passing over populated areas.*

Question: *What is the minimum altitude for airplanes and helicopters?*

Answer: *The minimum altitude for airplanes is 1,000 feet above populated areas unless the aircraft is in an ascending after take-off or descending on approach mode to an airport. In this case, the minimum altitude is 500 feet above the ground. Traffic pattern training is considered to be both take-off and landing modes. There is a 500-foot minimum altitude for operation of helicopters.*

Question: *Are any of the runways less noise conducive than others?*

Answer: *Yes. The main runway 31R/21L is the northeast and southwest departure corridor which takes traffic over commercial/industrial areas and river valleys.*

Question: *Why can't the single engine, private flight training aircraft practice more on the main 3R/21L?*

Answer: *The main runway is also the main instrument runway for actual low visibility and instrument practice operations. The larger, faster jet traffic needs the main runway due to its length for take-off and landing distance requirements. To mix the slower traffic with the faster traffic would degrade safety, complicate Air Traffic Control (ATC) and cause operational delays.*

Question: *Why and how do aircraft operate at night after tower closure?*

Answer: *Many operations that require the use of commercial aircraft must be done at night. An example is a light freight charter who carries canceled checks for banks to processing centers located in different cities. Another example is emergency medical operations. Many organs are flown into the Airport at night after the tower closes and delivered to area hospitals to save the lives of those in need.*

When the ATC Tower is closed, aircraft operate on a common frequency in and out of the Airport. The ATC approach and departure control located at Cincinnati/Northern Kentucky International Airport tracks and monitors all CMLA traffic during and after CMLA ATC operation times.

The FAA requires that all federally-funded airports be open 24 hours per day, seven days per week.

Question: *Why do we frequently hear aircraft revving up their engines?*

Answer: *Pilots are required to test the aircraft engines to ensure that the engine and systems are operating safely. This operational test is called an engine run-up, which is required prior to take-off. Routine operational run-ups are normally brief and preformed just prior to take-off. Nighttime maintenance engine run-ups are prohibited from 9 p.m. to 7 a.m. at CMLA.*

Question: *Why can't the Airport be closed or moved?*

Answer: *The Airport sponsor, City of Cincinnati, has a covenant with the FAA to operate the Airport on a 24-hour seven day per week basis per the Federal Grant Assurances. The Airport cannot discriminate by not offering services to private or commercial aircraft operators.*

Moving the Airport is cost-prohibitive. The issue has been studied. It would cost nearly $100 million to rebuild all of the facilities now located on the Airport. In 1926 when the Airport opened, the surrounding areas had not been developed. Now there are no areas large enough for the Airport that are not environmentally sensitive.

CMLA: A Noise Sensitive Airport

The City of Cincinnati considers aircraft noise a priority issue and the Airport is a noise sensitive airport. Efforts by the Airport to reduce the impact of aircraft noise date back to the 1970s.

The Airport's efforts to minimize noise, environmental and quality of life impact of aircraft began in earnest with the Airport's most recent Master Plan. The Master Plan included an Environmental Review of the Airport Development Plan's potential environmental impacts, including aircraft noise.

The effects of aircraft-generated noise on the areas surrounding the Airport were analyzed through use of the FAA's Integrated Noise Model, which produces computerized drawings of the areas exposed to Airport noise levels of 65 Ldn and greater. The Ldn metric identifies a single value of A-weighted sound for a duration of 24 hours that includes all the time-varying sound energy for that period, with a 10-dBA (A-weighted decibel) penalty applied to nighttime sounds. Noise sensitive land uses, such as residential uses, are generally considered "clearly unacceptable" in areas where noise exposure exceeds 75 Ldn, "normally unacceptable" in regions exposed to levels between 65 Ldn and 75 Ldn, and "normally acceptable" in areas exposed to 65 Ldn or less.

The analysis showed that while approximately 15 homes are located within the 65 to 75 Ldn contour, no homes are located inside the 75 Ldn contours. Noise Contours were created for current and worst case aircraft mix and for annual flight operations of 170,000 and 315,000. Current annual operations at CMLA are at 120,000.

The City remains in the forefront of aviation noise issues and is considering a ban on Stage 1 jets and voluntary nighttime Stage 2 jet use restriction. The City has also realized the importance of having a dedicated Office of Environmental Management (OEM) representative working with the Airport to address community noise issues.

The Airport's implementation of recommended noise abatement procedures for both turbine powered and training aircraft, the restriction on nighttime aircraft maintenance run-ups, and the posting of its recommended noise abatement procedures on signs at take-off areas have set the foundation for many of the noise control measures the Airport has enacted over the past few years.

CMLA NOISE CONTROL MEASURES:

- ***Preferential runway use during calm wind conditions to decrease aircraft noise.***

- ***Flight tracks for approaching and departing aircraft reduce the noise over heavily populated residential areas by redirecting flights over the City's commercial areas and over the Little Miami and Ohio Rivers.***

- ***Continuing the "voluntary" Recommended Noise Abatement Procedures for turbine powered aircraft operating at Lunken between the hours of 11 p.m. and 7 a.m.***

- ***Preferred helicopter routes for arriving and departing helicopters over major roadways, away from residential areas.***

- ***Voluntary Fly Neighborly Program for general aviation private and training operations, on runway 3L/21R. Signs installed on the Airport.***

- ***Recommended Noise Abatement Procedures for turbine aircraft and for all aircraft between 11 p.m. and 7 a.m. Signs installed on the Airport.***

- ***Voluntary use restriction on Stage 2 jet aircraft from 11 p.m. to 7 a.m. under study for consideration.***

- ***Confines of the surrounding terrain prohibit the growth of CMLA beyond Aircraft Design Group III Airport. Design Groups range from I to VI.***

- ***Working in cooperation with Hamilton County Department of Environmental Services to measure and monitor aircraft noise.***

- ***Departure turn headings which route northbound and southbound air traffic over the Little Miami and Ohio Rivers, away from residential areas.***

- ***Engine maintenance run-ups prohibited from 9 p.m. to 7 a.m. Daytime run-ups are restricted to the designed area designed and constructed for this purpose to reduce noise in the residential areas closest to the Airport.***

- *Noise Abatement Hotline to report excessive aircraft noise. Residents are encouraged to call (513) 591-6000 to report aircraft noise.*

- *Information for noise abatement to be published in pilot manuals and charts.*

- *In process of creating an Aircraft Noise Abatement Advisory Committee. The main purpose of the committee is to establish a meaningful dialogue between the Airport community and the neighboring residential communities. The primary goal is to enhance the quality of life of the residents of the communities while insuring the efficient operation of the Airport.*

- *Airport and OEM representatives attend community meetings to inform residents of key noise initiatives at the Airport and to discuss in an open forum ways to reduce the impact of aircraft noise.*

- *Pilot/Aircraft Owner education is built upon a collaborative effort with pilots and aviation businesses that use the Airport. The FAA Flight Standards District Office meets regularly with various groups to discuss the effectiveness of safety and noise measures. Training seminars that address both aviation noise and safety are conducted by both FAA and Airport staff on a regular basis.*

FUTURE NOISE ABATEMENT PROGRAM RECOMMENDATIONS

- *A full or partial ban on Stage 1 and Stage 2 jet operations.*

- *Expand the public education program to include more meetings with community groups. Further develop the Airport Aircraft Noise Abatement Advisory Committee.*

- *Upgrade and expand the functions of the current noise monitoring equipment. Purchase a Portable Noise Monitoring and Recording System.*

- *Establish a long-term noise monitoring program of monitoring noise at fixed locations for extended periods of time.*

- *Expand the Airport web site to allow for greater use such as dissemination of noise statistics and committee meeting agendas.*

- *Research, acquire FAA funding, and install a precision landing system to enable aircraft to fly at higher altitudes.*

- *Work with FAA Flight Standards District Office and OEM to inform the aviation community on the effects of aircraft noise on surrounding communities and to reinforce the Fly Neighborly Noise Abatement Procedures.*

- *Continue efforts to work with the City of Cincinnati Economic Development Department and Hamilton County in an effort to reduce land development in noise sensitive areas.*

- *The CMLA Noise Abatement History and Progress Plan schedule on the following page shows the Airport's progress toward establishing and further developing noise abatement policies at Lunken Airport.*

If you would like additional information regarding Cincinnati Municipal Lunken Airport and our Noise Abatement Program, please contact the Airport Administration Office at (513) 352-4070.

To report excessive aircraft noise in your area, please call the Cincinnati Customer Service Hotline at (513) 591-6000.