Frequently Asked Questions About Noise

Who operates the Airport?

Piedmont Triad International Airport is operated by the Piedmont Triad Airport Authority. The Authority is a seven-member public body with members appointed by the Cities of Greensboro, Winston-Salem, and High Point, and by Forsyth and Guilford Counties.

Who makes flight decisions at the Airport?

While the Authority operates the Airport, it does not have the ability to control the number or type of aircraft that operate at the Airport, to dictate the runways they use, to control their flight paths or to limit the time of day or night that they land or take off. The control over these issues lies with others. The Federal Aviation Administration ("FAA") and the individual pilots determine which runways are used and aircraft flight paths. The air carriers determine the number of flights and the types of planes that are flown. Federal law prevents the Authority from limiting the hours of the day or night when aircraft are allowed to operate.

What is the runway configuration at the Airport?

The Airport has three runways: the primary runway (Runway 5R/23L), which runs in a southwest/northeast direction, Runway 5L/23R, which is parallel to and about one mile northwest of Runway 5R/23L, and a crosswind runway, which is perpendicular to the other two (Runway 14/32). Click **here** for a diagram of the Airport runways. Runway 14/32 is used less frequently than the other two runways because it is not as well-aligned with the normal wind direction and is shorter than the other runways. Pilots prefer longer runways to allow a greater margin of safety in taking off and landing.

Why do I sometimes hear more aircraft noise than at other times?

The noise you hear at any particular time is largely determined by the direction that aircraft are taking as they arrive at or depart from the Airport runways. Aircraft operations late at night and early in the morning generally take place over areas southwest of the Airport. However, several factors may alter the normal pattern, such as wind speed and direction, other weather conditions and pilot choice. Wind speed and direction and other factors also affect the direction of aircraft traffic at other times of the day.

The need to close runways or taxiways for maintenance and repairs may also change flight operations, resulting in flight patterns that residents are not accustomed to. Although these changes are usually temporary, the Airport's primary runway (Runway 5R/23L) will be closed for more extensive work beginning in May 2019. This closure is expected to last for about four months before the primary runway is re-opened.

You may hear unaccustomed noise on certain days due to wind and other weather conditions, such as cloud cover and temperature inversions, that influence the way that sound travels.

In addition to these factors, there is an obvious difference in the volume of noise generated by different aircraft.

Because of these variables, the noise that you hear can vary from day to day and during the course of a day.

Are the aircraft at the Airport making more noise than in past?

No. The sound levels around the airport are lower on average than in the past. One reason is that aircraft are quieter. Over the years, the FAA has imposed progressively lower limits on the noise that civilian aircraft make. The FAA's imposition of progressively more demanding standards has resulted in a major reduction in the noise generated by modern aircraft.

What can the Authority do to change aircraft traffic patterns?

As noted above, the FAA Air Traffic Control and aircraft pilots – and not the Authority -- determine individual flight paths and runway selection as aircraft arrive at and take off from the Airport. The carriers schedule aircraft arrivals and departures and determine the number and type of commercial aircraft operating at the Airport.

The Authority can propose modified aircraft flight procedures as part of its Part 150 Noise Compatibility Program (NCP), but compliance with these procedures is voluntary. There are a number of flight procedures in the Authority's current NCP. Click **here** for a summary of the Authority's current NCP measures.

Each of the NCP flight procedures was designed to alter flight patterns to reduce residential noise exposure. All were approved by the FAA but, as noted and as is the case for all Part 150 flight procedures, the procedures were approved as voluntary measures, and the final flight decisions are made by Air Traffic Control and the pilot in command.

What else can the Authority do about airport noise?

In addition to the flight procedures in its NCP, the Authority is carrying out a Residential Sound Insulation Program ("RSIP") for houses within the program boundaries. The RSIP provides sound insulation improvements to these houses to reduce indoor noise levels from aircraft overflights. So far, the Authority has completed the sound insulation work on 93 houses. The current phase of the RSIP (Phase 7) includes an additional 29 houses. The remaining houses that are eligible for the program will be included in a final phase (Phase 8) beginning late this year or in 2020.

The Authority has also placed restrictions on engine testing (or "run ups") for aircraft maintenance. Run ups are prohibited each night from 11:00 p.m. to 5:00 a.m.

Which homes are eligible for sound insulation?

FAA funding is available to insulate only those homes within an airport's 65 DNL noise contour (that is, houses experiencing a DNL noise level of 65 dB or greater), unless the contour runs through a small neighborhood, in which case the FAA may agree for the entire neighborhood to be included. The DNL contour for the Authority's current RSIP was developed in the FAA's Environmental Impact Statement (EIS) for the construction of Runway 5L/23R and the Federal Express facility. You can view the boundaries of the Authority's program by clicking **here.**

DNL (short for "Yearly Average Day-Night Sound Level") is a measure of cumulative noise exposure determined under methods prescribed by the FAA and is meant to represent average aircraft noise levels rather than the decibel level that is experienced at any particular time. Because DNL is based on average noise levels, it reflects not only the noise from aircraft flights but how often they occur over a given location.

Even if a house is within the 65 DNL contour, it will not be eligible for the program if it was built after December 31, 2001 (the date the EIS was adopted) unless a building permit or subdivision approval had been obtained for the property before that date.

Why don't flight paths follow highway corridors and avoid residential areas?

The Airport's Part 150 Noise Compatibility Program calls for south bound aircraft departing on Runway 5R/23L at night to follow Highway 68 as they leave the airport and, in this manner, take advantage of the Highway 68 road corridor to reduce flights over residential neighborhoods. However, arriving flights have very little flexibility to make turns as they approach the Airport and must align with the runways several miles from the Airport as they begin their final approach. The highways near the Airport are too close to the runways for arriving aircraft to make a final turn off the highway corridors and land safely.

Why are flights allowed late at night or early in the morning?

As part of the nationwide air transportation system, the Airport is required to be open 24/7. Under Congressional legislation that was adopted in 1990, airports are not allowed to impose noise and access restrictions on aircraft operations without special FAA permission. The conditions for obtaining such permission for a nighttime closure of an air carrier airport are prohibitive.

What is a Part 150 Study?

A Part 150 Study is a federally funded and supervised program that seeks to reduce the impact of airport operations on neighborhoods surrounding the airport. The procedures and standards for the study are specified in Part 150 of the Federal Aviation Regulations, which gives the study its name. The study results in the preparation of Noise Exposure Maps (“NEMs”) showing projected 65 and 70 DNL contours around an airport (see DNL discussion above) and a Noise Compatibility Program (“NCP”) with proposed noise mitigation measures. The NEMs and NCP must be approved by the FAA.

The Authority's initial Part 150 Study was approved by the FAA in 2008. The Authority is now updating its Part 150 Study. The update process should take about one year to complete and will result in new NEM's and a review and possible revision of the Airport's current NCP.

Are planes coming in lower than they should?

Aircraft cannot descend at too steep an angle as they approach an airport. The standard is a three-degree angle of descent, referred to as the "glide slope." One of the Authority's Part 150 measures seeks to prevent aircraft from dropping below

the glide slope while on final approach (in other words, they are to remain as high as the glide slope standard will allow until touchdown).

The Airport has the ability to check aircraft altitudes on a case-by-case basis to confirm whether an aircraft is complying with this measure. However, compliance with this measure, as noted above and like all Part 150 flight procedures, is voluntary, and the flight path of each flight is ultimately determined by the FAA Air Traffic Control Tower and the aircraft's pilot.

Has any effort been made to restrict residential development around the Airport?

The Cities of Greensboro and High Point and Guilford County have each created "Airport Overlay Districts" that encompass the areas that they have identified as being most affected by airport noise. You may see the Greensboro overlay district by clicking **here**, and High Point overlay district by clicking **here.**

The City of Greensboro limits residential development within its overlay district to single family homes on lots of at least 40,000 square feet (approximately one acre). The purpose of this restriction is to prevent dense residential development within the district. High Point divides its district into four zones, at varying distances from the Airport. Residential uses are generally prohibited in Zone 1-2 (closest to the Airport); new residential construction within Zone 3 must provide extra sound insulation. A disclosure must be given to prospective buyers in all four zones (including Zone 4, farthest from the Airport) stating that the property they are considering is within High Point's Airport Overlay District and that the property is subject to aircraft overflights and to aircraft noise that may be objectionable.

The Guilford County overlay district is located within the 65 DNL contour around the Airport Guilford County imposes the same restrictions as Greensboro within its overlay district.

The current Airport Overlay Districts have been in place in all three jurisdictions since the early 2000s.

What is the status of FedEx flights?

FedEx completed its hub facility at the Airport in 2009. Originally FedEx projected that by 2019 it would have 62 aircraft arriving at and departing from its hub facility each night, four nights a week. However, FedEx now operates only 10 hub aircraft a night, four nights a week (starting with Monday night arrivals and ending with Friday morning departures). These flights began in September 2018.

FedEx has additional flights for local (non-hub) service. As in the case of other carriers, FedEx determines the number and scheduling of its flights, and the Authority does not have any projection at this time of the number of operations that FedEx will conduct in the future or when any future operations may occur.

How is the repaving and other work on the Airport's primary runway affecting noise?

Over the past two years, the Authority has been carrying out a major rehabilitation project on Runway 5R/23L. This work includes reconstruction of the runway pavement, renovation of the airfield lighting system and work on the airfield drainage structures. This project is required by FAA regulations and by the need for basic maintenance and aircraft safety. Runway 5R/23L was last repaved in 1999.

A major phase of this project was completed in 2018. A new phase will begin in early May of 2019 and will result in a closure of Runway 5R/23L for at least four months (depending on the weather) for the contractor to do the work on the runway. The contract specifications impose an aggressive schedule on the contractor to limit the closure period and provide for a reopening of Runway 5R/23L at night during a final stage of the work. During the closure, aircraft that would normally use Runway 5R/23L will be shifted to the parallel runway (5L/23R). This will result in a significant but temporary increase in the flights on the parallel runway.