



U.S. Department
of Transportation
**Federal Aviation
Administration**

Great Lakes Region
2300 East Devon Avenue
Des Plaines, IL 60018

AUG 31 2012

[REDACTED]
Arlington Heights, IL 60005

Dear Mr. and Mrs. [REDACTED]

I am writing on behalf of the Federal Aviation Administration (FAA) about a concern that you have raised regarding a perceived increase in aircraft noise in your neighborhood and over your home, which is located approximately five miles from Chicago O'Hare International Airport. I am in receipt of a number of e-mails from you and, as you are aware, I have spoken at some length with each of you on multiple occasions. Additionally, you have sent e-mails to the FAA's Acting Administrator, Michael Huerta. The Acting Administrator has asked me to respond on behalf of our agency.

You have stated, in your e-mails and telephone conversations, that you have witnessed, and continue to see, a significant increase in low altitude aircraft operations – both arrivals and departures – over your neighborhood, beginning in the early spring of this year and continuing to the present. Through our communications, I committed to you that I would examine the situation to attempt to ascertain if there has indeed been an increase in air traffic over your neighborhood, and if so, what the cause of that increase might be.

As I stated to you in our telephone conversations, historical data for aircraft operations into, out of, and in the vicinity of O'Hare is kept in great detail by the City of Chicago Department of Aviation (CDA), and that data is derived directly from certified FAA radar data. I am aware that you have requested specific samplings of this data from the CDA, and they have responded to you with reports showing very specific aircraft arrival and departure tracks, counts, and altitudes for time periods that you have requested. It is my understanding that the CDA data provided to you did not reflect, in the opinion of the CDA, an appreciable change in arrival and/or or departure activity over your neighborhood.

Regarding my commitment to you to examine the situation myself, I recently met with representatives of the CDA and FAA's O'Hare Airport Traffic Control Tower management. At this meeting, I requested substantial historical data on traffic volumes and runway utilization, and I sought information on any procedural changes that may have been implemented this year. The factual results of my inquiry are as follows:

Runway utilization for all O'Hare departure traffic in 2012 generally adheres to a pattern that is consistent with past years. The two most heavily used departure runways, based on historical data, are Runway 22L and Runway 32L, and that holds true for 2012 as well. In fact, Runway 22L has been the most heavily used departure runway this year, with Runway 32L being the second most heavily used. Runway 32L departures are the predominant departures over your neighborhood. Looking at recent year data, and comparing that to all available data we have thus far in 2012, 32L has been used for departures at a slightly lower percentage (of total O'Hare departures) in 2012 than it was for the same months in 2011 and 2010.

It should also be noted that occasional departures from Runway 28 turn northward and pass over your neighborhood as well. Runway 28 is a lesser used (than 22L or 32L) departure runway, and while available data shows a slight increase in 28 departures this year over past years, 28 departures constitute a very small percentage of departures that pass in the vicinity of your neighborhood.

Examining arrival traffic, once again, available data shows that runway utilization for O'Hare arrivals in 2012 generally adheres to a pattern that is consistent with past years. Arrival traffic is spread among a number of runways, with 4R, 10, 14R, 27L, and 28 getting the most use for arrivals. Of these runways, arrivals to 14R are the only arrivals that pass over your neighborhood at lower altitudes (other arriving aircraft pass over your neighborhood as well, but at significantly higher altitudes). Runway 14R has, in fact, seen a small increase in arrival activity in 2012 over prior years. This can be attributed to weather and wind patterns, which dictate runway usage and, of course, are slightly different each year. However, even with this increase of arrivals on 14R, available data shows that only approximately 10% to 20% (varying month to month) of O'Hare arrivals have used 14R in 2012, while 80% to 90% of O'Hare arrival traffic has used other runways.

Arguably the best measure of existing aircraft noise impacts on a given area can be obtained from noise monitoring equipment positioned on the ground. As you may know, O'Hare Permanent Noise Monitor #1 is located in very close proximity to your home and has been collecting noise data for many years. The noise measurements from this and other monitors are collected by the CDA and are calculated and expressed in Day-Night Average Sound Level, or DNL. DNL calculates a cumulative measure of noise exposure over a 24-hour period, and is the accepted industry standard for noise exposure measurement.

Examining DNL noise exposure data collected from O'Hare Permanent Noise Monitor #1, we can get the best possible measure of actual noise exposure at ground level in the vicinity of your neighborhood. Available DNL data from Monitor #1 reflects the following:

1. The average annual DNL measurement has dropped noticeably since the monitor was first installed in 1996. This can be attributed, in part, to the phase out of some louder aircraft within the past 15-20 years.

2. Comparing the most recent years' average DNL measurements, we see fairly consistent DNL data for 2010, 2011, and thus far in 2012, meaning that the Noise Monitor has not detected a significant change in noise exposure for these years.
3. Examining a month by month DNL comparison for the same months in 2011 and 2012 (we have DNL data through July 2012), we see virtually identical DNL numbers for January through April of 2012 as compared to the same time period in 2011, we see a visibly lower DNL measurement for May-June of 2012 as compared to May-June 2011 (meaning less average noise exposure for May-June in 2012 vs. 2011), and we see a DNL measurement for July 2012 that is slightly lower than the DNL in July 2011.

Once again, DNL data from the Permanent Noise Monitor in the vicinity of your neighborhood is arguably the most accurate and objective measure of existing noise exposure impacts in that area. In your communications to me, you have cited aircraft passing over your neighborhood from different directions and at different altitudes, both arriving and departing O'Hare. Permanent Noise Monitor #1 captures all of these aircraft movements that can be heard on the ground, 24 hours per day, and factors them into its monthly DNL calculation. Based on available DNL information, and without debating the numbers, directions, and altitudes of aircraft you see and hear, the DNL data, which is current through July 2012, does not reflect an increase in cumulative noise exposure in the vicinity of your home in 2012.

In your communications with me, you have raised questions regarding the possibility of sound insulation for your home, and you have also referenced sound insulation that was installed at a school located in close proximity to your home. The FAA's Federally-funded residential and school sound insulation programs are administered based on specific DNL standards and other noise metrics related to the use and characteristics of residences and schools. Based on the end-state 65 DNL noise contour contained in the O'Hare Modernization Environmental Impact Statement, dated July 2005, your home is not eligible for the FAA's Federally-funded residential sound insulation program at O'Hare. Should you desire specific information about the residential and school sound insulation programs and factors that define eligibility for a home or school, that information can be obtained from either the CDA or the FAA, through my office or other City and FAA offices you have contacted.

Lastly, you have expressed a concern that aircraft flying over your neighborhood may be operating too close together. I want to assure you that the FAA's air traffic control procedures are developed with much forethought and with full consideration for safety. Separation of aircraft in our system is maintained both horizontally and vertically at all times, in accordance with established separation standards, and sophisticated automation tools utilized in air traffic control help us to ensure those separation standards are maintained in our daily air traffic control operations.

The Federal Aviation Administration has endeavored to take a thorough and objective look at the issues you have raised through your written and verbal communications with me. We believe this letter provides a comprehensive, objective, data-based assessment of our findings. Should you have any questions regarding the information contained above, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Barry D. Cooper". The signature is fluid and cursive, with a large initial "B" and "C".

Barry D. Cooper
Regional Administrator
Great Lakes Region

cc: Rosemarie Andolino, Commissioner, Chicago Department of Aviation