

CHICAGO DEPARTMENT OF AVIATION

Chicago O'Hare International Airport

History of Noise Monitor Locations

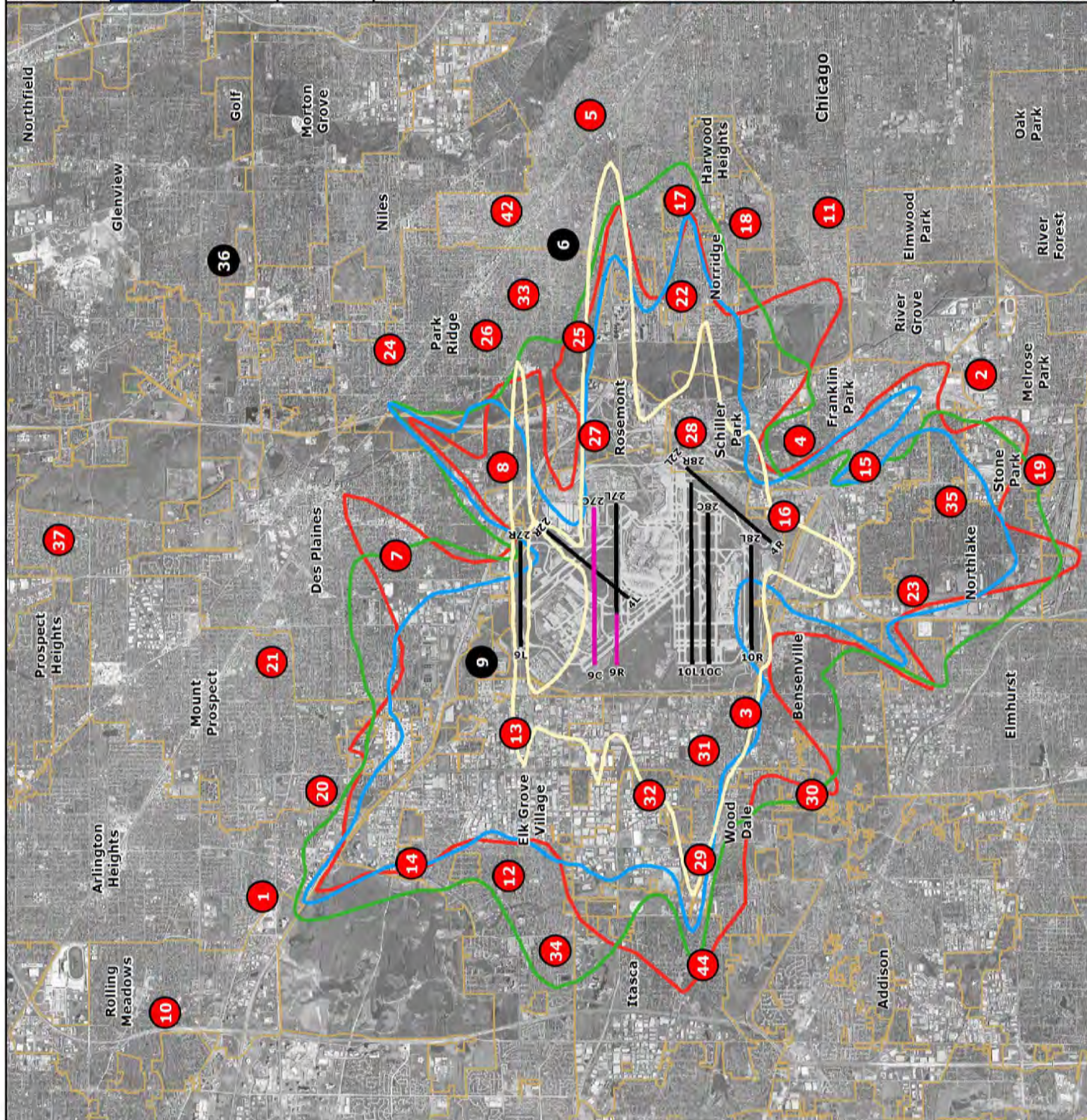
City of Chicago
Rahm Emanuel, Mayor
Jamie L. Rhee, Commissioner of Aviation

Legend

- Existing Noise Monitors (36)
- Decommissioned Noise Monitors (3)
- Existing Runways
- Future Runways
- O'Hare Modernization Program Build-Out Noise Contour (65 DNL)
- 2000 Noise Contour (65 DNL)
- 1997 Noise Contour (65 DNL)
- 1993 Noise Contour (65 DNL)

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Date: August 3, 2018
File: ORD_2018_Permit.mxd



FACT SHEET



HISTORY OF THE PERMANENT NOISE MONITORS AT CHICAGO O'HARE INTERNATIONAL AIRPORT

Introduction

Installed in 1996, the Airport Noise Management System (ANMS) enables the Chicago Department of Aviation (CDA) to monitor the amount of noise being generated over the communities surrounding Chicago O'Hare International Airport (O'Hare) by the aircraft operating at the airport. The ANMS collects, analyzes, and processes data from a number of sources of information including a network of 36 permanent noise monitors around O'Hare and correlates the noise data with FAA flight radar data.

Purpose of the Permanent Noise Monitors

All noise monitors have been sited in consultation with community representatives and based primarily on the criteria outlined in the fact sheet titled *Criteria for the Permanent Noise Monitors at Chicago O'Hare International Airport*. The CDA and the O'Hare Noise Compatibility Commission (ONCC) utilize noise data from the permanent monitors to: report aircraft noise levels as a matter of public interest, monitor trends in aircraft noise, and validate the approved noise contours.

History

- In 1995, the CDA with input from the local communities identified potential noise monitor locations based primarily on the below criteria and also other site constraints. All noise monitor locations were inside the 65 DNL of the 1993 Noise Contour or within 1 nautical mile outside the 65 DNL except for four (4) monitors (Sites 10, 21, 36 and 37).
 - Sites 10 and 36 were located along specific arrival flight paths (14R and 22R).
 - Site 21 was located between two departure flight paths (4L and 32L).
 - Site 37 was located north near Chicago Executive Airport (PWK) to assist in quantifying the number of ORD complaints that were a result of PWK flights.
- In 1996 and 1997, twenty-four (24) monitors were installed as a part of the initial ANMS installation.
- In 1998 and 1999, eight (8) additional noise monitors (Sites 2, 7, 8, 24, 25, 26, 35 and 36) were installed, bringing the total number of permanent noise monitors to thirty-two (32).
- In 2000, Site 36 was removed at the property owner's request bringing the total number of permanent noise monitors to thirty-one (31).
- In 2005, Site 9 was removed at the property owner's request bringing the total number of permanent noise monitors to thirty (30).
- In 2009, three (3) additional noise monitors were installed specifically to capture aircraft noise from new flight paths associated with the O'Hare Modernization Program bringing the total number of permanent noise monitors to thirty-three (33).
 - Site 29 was located to capture departures from 28R and arrivals on 10L.
 - Site 30 was located to capture departures from 28R turning south.
 - Site 33 was located to capture arrivals on 27R.
- In 2011, Site 6 was removed at the property owner's request bringing the total number of permanent noise monitors to thirty-two (32).
- In 2016, Site 42 was installed to capture arrivals on 27R, bringing the total number of permanent noise monitors to thirty-three (33).
- In 2018, three (3) additional noise monitors were installed to capture aircraft noise from changes in runway use and flight paths associated with the O'Hare Modernization Program, bringing the total number of permanent noise monitors to thirty-six (36).
 - Site 18 was located in Norridge to capture arrivals on 28C and departures from 10L turning south.
 - Site 31 was located in Bensenville to capture arrivals on 10C and departures from 28R.
 - Site 44 was located in Itasca to capture arrivals on 10C.

Disclaimer: Due to strict Federal Aviation Administration guidelines, data collected by permanent noise monitors will not be used to determine eligibility for the Residential and School Sound Insulation Programs.

RMT	Community	Monitored Annual DNL																				Modeled OMP Build-Out Values		
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		2016	2017
1	Arlington Heights	65.0	64.1	63.7	62.5	63.0	62.0	61.0	60.9	61.3	61.5	62.0	61.2	60.8	59.8	56.4	59.9	58.5	58.1	56.4	53.6	56.4	56.4	50.5
2	Melrose Park	--	--	--	60.7	61.0	59.3	56.6	55.9	56.3	55.5	55.6	55.7	56.1	57.0	52.6	53.9	53.9	53.8	59.3	55.9	58.5	59.3	50.3
3	Bensenville	69.0	69.4	68.9	68.8	67.3	64.7	61.4	60.0	61.0	60.9	62.0	62.5	60.6	57.9	60.8	60.2	59.9	61.5	64.4	64.2	64.3	64.4	64.9
4	Schiller Park	65.4	63.0	63.7	63.1	62.6	60.6	58.2	56.7	58.1	58.5	59.3	60.8	58.4	55.2	54.4	54.2	56.9	56.2	57.0	56.3	58.7	57.0	58.8
5	Chicago	61.0	61.2	61.5	61.0	59.8	60.1	57.8	57.3	57.0	57.3	57.7	58.3	58.8	58.8	57.6	58.2	57.9	57.8	60.6	60.5	60.2	60.6	61.9
6	Chicago	60.3	60.4	60.8	59.6	59.6	58.8	56.6	56.0	56.5	54.6	55.1	56.2	57.5	56.9	56.3	58.7	--	--	--	--	--	--	n/a
7	Des Plaines	--	--	--	62.3	62.0	60.3	56.9	57.3	58.5	59.3	58.8	59.1	57.7	53.6	53.2	55.4	52.1	55.1	51.8	53.9	52.0	51.8	48.5
8	Des Plaines	--	--	--	67.6	68.8	68.7	65.2	65.0	66.3	66.0	66.8	66.2	65.6	63.7	59.4	62.3	61.2	61.5	58.3	58.0	56.1	58.3	60.8
9	Des Plaines	72.6	72.0	70.7	69.8	68.8	68.7	63.6	64.1	65.1	65.9	--	--	--	--	--	--	--	--	--	--	--	--	n/a
10	Rolling Meadows	--	61.2	62.3	61.6	60.8	59.8	59.4	59.6	60.2	57.9	60.6	58.4	59.2	58.7	56.3	57.7	57.8	59.6	54.0	52.3	56.2	54.0	48.9
11	Chicago	59.8	61.8	61.9	61.8	60.7	60.2	57.6	57.7	58.6	57.3	57.8	57.5	57.6	56.4	53.3	56.9	58.6	59.2	54.7	59.5	54.4	54.7	50.3
12	Elk Grove Village	--	64.4	63.3	62.3	62.1	62.2	60.4	60.3	59.1	59.8	63.7	62.4	60.1	58.9	56.3	57.9	58.1	58.7	60.6	60.9	62.0	60.6	57.6
13	Elk Grove Village	78.6	79.6	79.3	78.0	77.6	75.5	74.3	74.2	74.3	74.7	76.0	73.7	74.5	73.7	71.4	72.3	72.5	71.8	65.9	65.4	67.4	65.9	64.6
14	Elk Grove Village	67.5	67.3	67.5	66.0	65.7	64.2	62.9	63.3	63.5	63.8	63.5	62.1	62.0	60.7	58.7	60.3	60.3	59.8	58.8	56.2	60.0	58.8	54.5
15	Franklin Park	64.3	64.9	64.3	64.0	62.6	60.5	57.1	56.5	58.8	58.7	58.4	59.2	58.5	58.9	54.9	56.0	55.8	55.4	52.8	53.7	53.6	52.8	53.6
16	Franklin Park	71.2	72.8	72.6	72.8	72.1	70.7	68.8	68.0	69.7	70.2	69.2	69.9	69.2	65.0	64.1	64.5	65.3	64.4	64.0	64.4	63.6	64.0	63.4
17	Harwood Heights	64.1	68.1	66.6	66.4	65.4	66.2	65.7	65.5	65.5	65.7	66.4	65.9	65.4	64.0	65.7	65.8	65.2	63.9	63.4	62.6	64.1	63.4	57.9
18	Norridge	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a
19	Stone Park	60.9	63.4	62.1	61.8	61.7	61.0	58.9	58.5	59.5	59.7	63.0	59.3	58.6	56.4	54.7	53.7	55.2	54.4	54.1	55.3	54.3	54.1	51.6
20	Mount Prospect	--	63.9	63.4	62.1	62.4	62.6	59.9	60.4	60.9	61.4	61.2	61.4	60.7	60.3	58.1	59.6	58.4	60.0	52.4	56.7	54.3	52.4	49.1
21	Mount Prospect	--	59.9	58.9	58.6	58.6	57.1	56.1	55.9	56.5	56.6	56.6	55.6	54.9	55.7	51.4	54.7	53.5	53.2	51.9	48.1	52.9	51.9	53.6
22	Norridge	66.8	70.6	69.0	68.7	67.7	68.5	67.7	67.6	67.1	67.6	68.0	67.3	66.6	65.5	67.0	67.4	66.6	66.2	65.9	64.4	65.8	65.9	59.2
23	Northlake	70.4	71.2	71.2	70.6	69.1	67.4	64.7	63.2	64.6	64.1	63.9	64.1	63.4	62.5	64.2	64.0	64.4	64.2	63.2	62.5	63.1	63.2	59.6
24	Park Ridge	--	--	60.1	58.2	58.8	58.4	56.1	56.3	57.4	56.7	56.8	56.8	55.7	54.0	50.1	54.6	52.7	53.4	54.1	52.5	54.5	54.1	50.6
25	Park Ridge	--	--	65.2	63.8	61.8	60.9	58.1	57.2	57.7	57.1	58.6	59.6	60.6	57.3	54.4	59.9	60.2	57.7	62.5	60.2	62.8	62.5	66.7
26	Park Ridge	--	--	62.2	61.1	61.2	59.6	57.5	57.3	58.5	58.2	58.8	59.4	57.9	56.2	53.7	58.1	56.3	57.4	57.9	56.3	58.2	57.9	59.5
27	Rosemont	71.6	71.2	71.4	69.7	67.6	66.2	62.2	63.8	64.5	64.6	64.3	64.3	64.0	63.6	61.7	64.1	63.2	63.4	69.1	66.0	69.7	69.1	70.2
28	Schiller Park	77.1	81.1	78.9	78.6	78.7	78.6	77.8	77.7	77.7	77.4	78.0	76.2	76.5	71.4	77.7	77.2	76.4	75.8	74.9	74.2	73.3	74.9	67.9
29	Wood Dale	--	--	--	--	--	--	--	--	--	--	--	--	--	63.8	63.3	66.8	65.3	65.0	66.6	65.4	66.7	66.6	65.1
30	Wood Dale	--	--	--	--	--	--	--	--	--	--	--	--	--	53.3	54.7	54.2	54.2	55.8	58.3	57.2	56.7	58.3	58.5
31	Bensenville	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a
32	Wood Dale	66.9	70.0	69.8	68.4	66.4	65.6	62.9	63.3	64.2	64.0	63.9	60.2	58.7	57.1	63.4	62.1	61.5	62.1	65.9	66.2	65.9	65.9	63.8
33	Park Ridge	--	--	--	--	--	--	--	--	--	--	--	--	--	59.5	52.6	57.4	59.5	60.6	62.8	61.9	62.4	62.8	61.9
34	Elk Grove Village	--	63.8	62.3	61.4	61.2	60.7	58.8	58.3	58.5	58.8	59.1	58.6	58.8	56.4	55.1	58.2	58.7	58.8	58.5	58.6	61.3	58.5	61.4
35	Unincorporated Cook	--	--	--	66.1	65.4	64.5	61.3	59.9	62.4	67.1	66.3	63.1	63.4	54.8	54.6	56.9	59.5	59.4	58.4	58.2	58.5	58.4	54.7
36	Glenview	--	--	60.3	60.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a
37	Mount Prospect	55.7	55.3	--	56.4	57.0	56.0	54.9	54.6	55.1	54.9	53.3	53.3	54.3	53.8	51.4	53.9	53.7	56.4	52.2	54.4	52.9	52.2	50.5
42	Chicago	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59.4	59.0	n/a
44	Itasca	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a

-- Monitor not in operation

n/a - Not Applicable

DNL is a 24-hour time-averaged sound exposure level with a 10 decibel (dB) nighttime (10 p.m. to 7 a.m.) weighting to account for the lower background noise levels during the nighttime hours.