

August 2008  
Monthly Report



# Airport Noise Management System

Chicago O'Hare International Airport

City of Chicago  
Department of Aviation



Visit the Community Noise Resource Center  
on the Internet at

[www.flychicago.com](http://www.flychicago.com)



## Airport Noise Management System Monthly Report Report Descriptions

### Background

Installed in 1996, the Airport Noise Management System (ANMS) enables the City of Chicago to monitor the amount of noise being generated over the communities surrounding 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 30 noise monitors around O'Hare, FAA radar data, weather data and calls to the noise hotline. Over 120,000 flights and 400,000 noise events are recorded by the ANMS each month for the Chicago Airport System. The City of Chicago and the O'Hare Noise Compatibility Commission utilize data from the ANMS to facilitate the development and management of noise abatement programs at the Airport. The following reports summarize pertinent monthly information from that data concerning the noise levels and operations at the Airport.

### Runway Use Report

O'Hare has seven runways that are all utilized at different times depending primarily upon the prevailing wind conditions on the airfield, as well as any runway maintenance. Aircraft performance requirements make it necessary for aircraft to depart and land into the wind for safety purposes.

The Runway Use Report presents the average percentage of use for each runway for the current month, the previous month and a 12-month average. The percentage of use for departures and arrivals is shown graphically for each runway. This data is for all hours of the day and for all aircraft types. Also shown is the runway use for the nighttime hours (10 p.m. to 7 a.m.).

Highlights for **August 2008** include:

#### Departures

Most used departure runway: **32L – 37%**  
9R departures increased by **12%** from July 2008  
22L departures decreased by **11%** from July 2008

#### Arrivals

Most used arrival runway: **10 - 30%**  
4R arrivals increased by **16%** from July 2008  
28 arrivals decreased by **14%** from July 2008

### Aircraft Noise Report

The Aircraft Noise Report summarizes noise measurements from each of the 30 noise monitors located around the Airport. The data presented summarizes the Day-Night Average Noise Levels (DNL's). 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.

The data displays the measured aircraft DNL for each month and its comparison to the same month of the previous year, and it compares the current month to the 12-month average. The aircraft noise report identifies noise from the existing aircraft operations at O'Hare. The modeled values for each monitor are shown for 1997, 2000 and the OMP Full Build Out Noise Contours.

The aircraft noise levels for each monitor vary from month to month. This is primarily due to runways being utilized differently under changing wind conditions which effect where the aircraft fly.

### Aircraft Fleet Mix Report

The Aircraft Fleet Mix Report summarizes the number and type of aircraft operating at O'Hare International Airport during both all hours of the day and during the nighttime hours.

In 1990, Congress enacted legislation to eliminate all Stage 2 aircraft operating in the continental United States by the year 2000. In response, the FAA created a program to "phase-out" the older, louder Stage 2 aircraft over a ten-year period to achieve full compliance by the 2000 deadline. As of January 2000, all aircraft operating at O'Hare and within the United States were Stage 3. Stage 3 aircraft, such as the Boeing 757 (B757) and new Boeing 737's (B737) use a quieter type of engine that significantly reduces noise at the source. Also, a Stage 3 aircraft can be a previous Stage 2 aircraft with the engines retrofitted with a "Hush-kit" such as a Boeing 727 (B72Q), Boeing 737-200 (B73Q) and DC-9 (DC9Q). More than **98%** of the operations at O'Hare International Airport are originally certified as Stage 3 aircraft.

### Noise Hotline Report

The Department of Aviation maintains a toll-free noise hotline (**1-800-435-9569**) for citizens to express their concern about particular incidents or aircraft noise levels in general. The noise hotline report summarizes the number of calls received and where the callers were located. The tabular report lists the number of calls by community as well as the number of individual callers. The graph at the bottom of the page illustrates the nature of the complaint calls during the specified month.

Also shown are complaint calls by month displaying seasonal trends. The chart at the bottom of this page illustrates the trend in monthly complaint calls. Complaint totals for 2006 include all calls made to the O'Hare Noise Hotline. Complaint totals for 2007 and beyond only include calls made within the State of Illinois to the O'Hare Noise Hotline.

<b>Complaint Calls by Month</b>			
<b>Month</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
January	62	66	31
February	66	23	20
March	85	105	60
April	70	69	63
May	143	132	92
June	143	166	140
July	113	185	138
<b>August</b>	<b>158</b>	<b>145</b>	<b>210</b>
September	204	149	
October	112	133	
November	97	50	
December	109	25	
<b>Total Calls</b>	<b>1,362</b>	<b>1,248</b>	<b>754</b>

# Runway Use Report

Chicago O'Hare International Airport

Period: August 2008

Time of Day: All hours



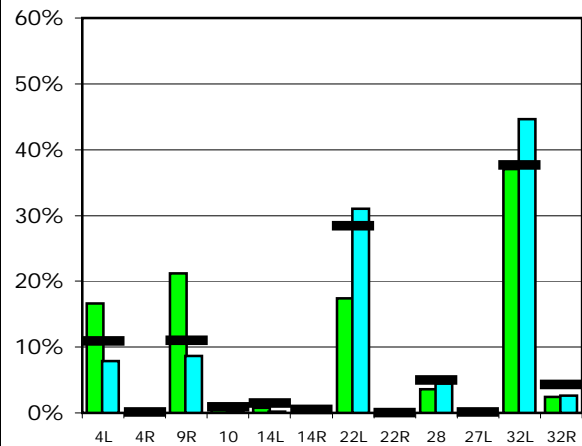
## Runway Use (All hours)

Source: Airport Noise Management System (ANMS)

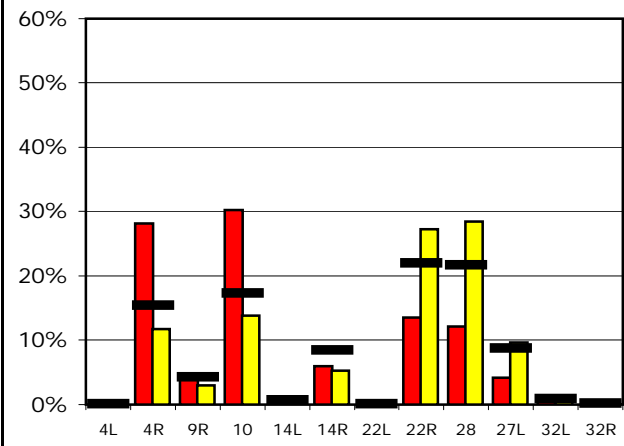
### Runway Utilization

		4L	4R	9R	10	14L	14R	22L	22R	28	27L	32L	32R
<b>Average Daily Departures</b>													
<b>August 2008</b>	<span style="color: green;">■</span>	213	0	272	7	10	4	223	0	46	0	475	32
July 2008	<span style="color: cyan;">■</span>	94	0	103	4	2	2	370	0	54	0	532	31
12 Month Avg.	<span style="color: black;">■</span>	129	1	130	10	17	5	335	0	58	1	444	50
<b>Average Daily Arrivals</b>													
<b>August 2008</b>	<span style="color: red;">■</span>	0	382	57	409	0	81	1	183	164	57	19	1
July 2008	<span style="color: yellow;">■</span>	2	145	37	172	1	65	0	338	353	119	7	0
12 Month Avg.	<span style="color: black;">■</span>	1	191	53	214	9	104	1	272	268	108	11	3

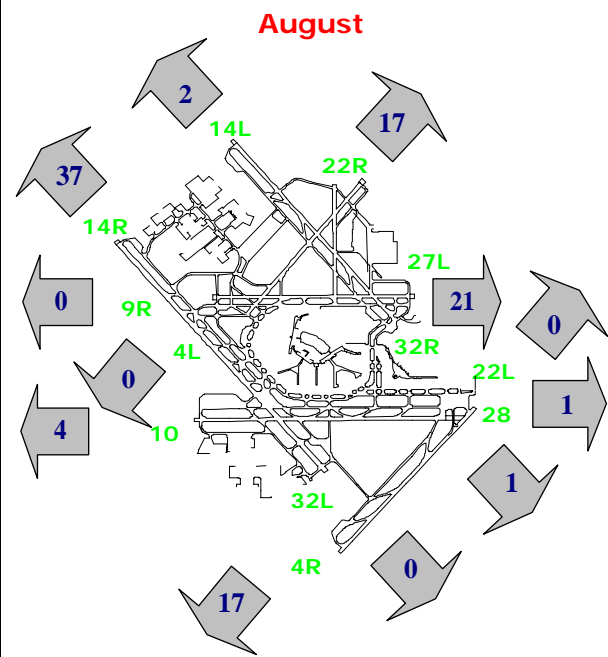
### Departures (All hours)



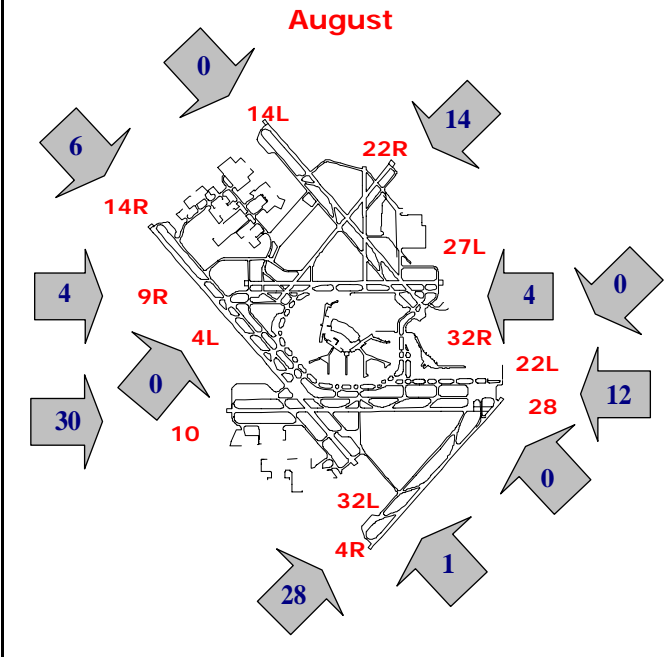
### Arrivals (All hours)



### Percentage Departure Utilization



### Percentage Arrival Utilization



# Runway Use Report

Chicago O'Hare International Airport

Period: August 2008

Time of Day: 10:00 p.m. to 7:00 a.m.



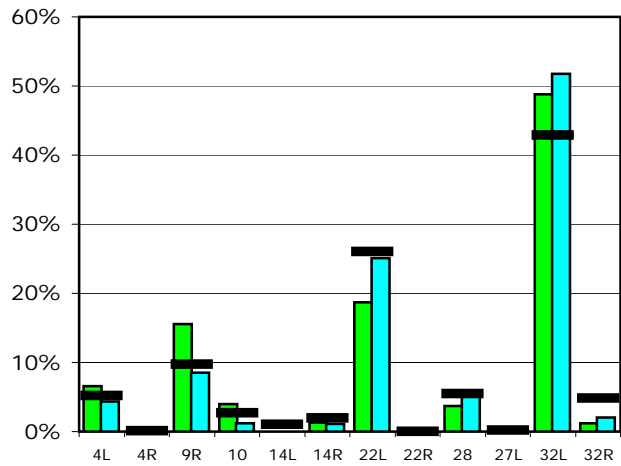
## Runway Use (10 p.m. to 7 a.m.)

Source: Airport Noise Management System (ANMS)

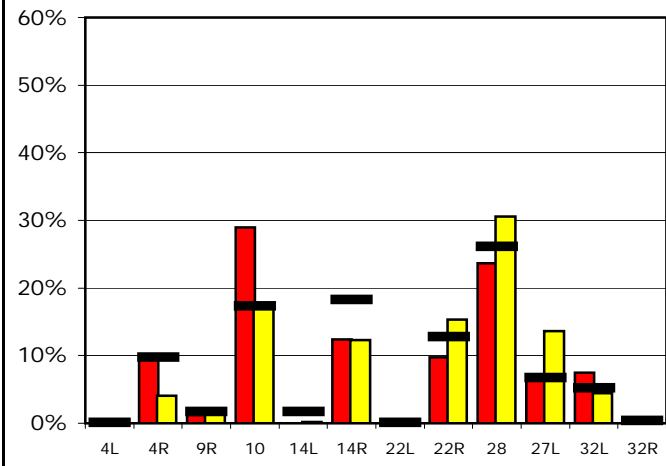
### Runway Utilization

	4L	4R	9R	10	14L	14R	22L	22R	28	27L	32L	32R
<b>Average Daily Departures</b>												
August 2008	8	0	19	5	0	2	23	0	4	0	59	1
July 2008	5	0	10	1	0	1	29	0	7	0	59	2
12 Month Avg.	6	0	11	3	1	2	29	0	6	0	47	5
<b>Average Daily Arrivals</b>												
August 2008	0	16	2	49	0	21	0	16	40	12	13	0
July 2008	0	6	2	25	0	18	0	22	44	19	6	0
12 Month Avg.	0	14	2	25	2	26	0	18	37	10	7	1

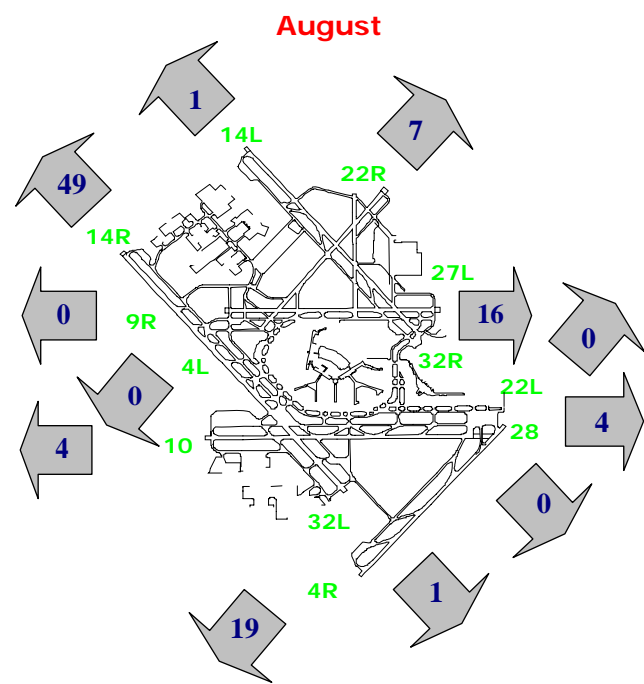
### Departures (10 p.m. to 7 a.m.)



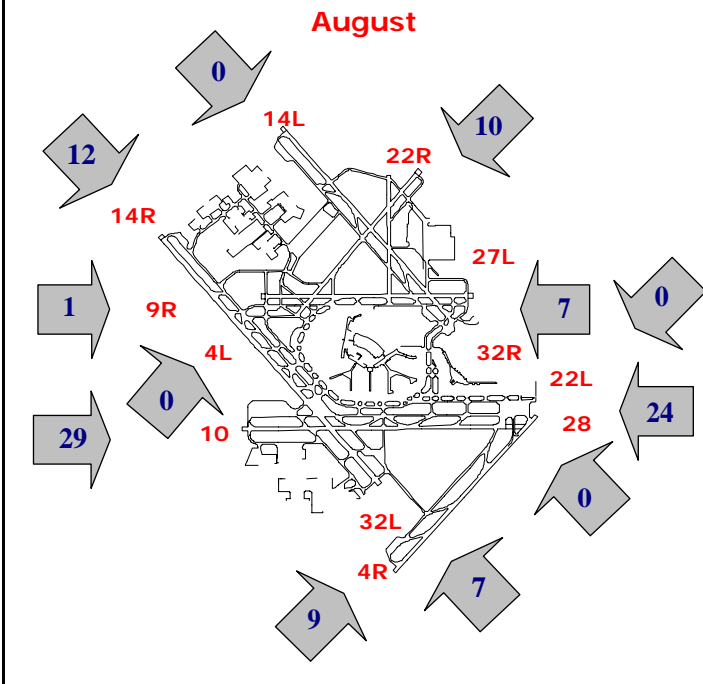
### Arrivals (10 p.m. to 7 a.m.)



### Percentage Departure Utilization



### Percentage Arrival Utilization



**Aircraft Noise Report**

Chicago O'Hare International Airport

Period: August 2008

Metric: Aircraft DNL



RMT #	Community	Last 12 Months Monitored Noise Levels												Last Aug 07	12 Month Average vs 1997 <sup>2</sup>	Modeled 1997 Values	Modeled 2000 Values	Modeled OMP Full Build Out Values
		Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr1 08	May1 08	Jun1 08	Jul1 08	Aug <sup>1</sup> 08					
1	Arlington Heights	61.4	61.5	60.6	60.7	59.4	58.6	61.5	61.6	61.7	61.6	61.7	61.8	62.6	61.0	63.0	63.0	50.5
2	Melrose Park	53.8	55.8	58.3	54.1	53.8	52.4	52.9	54.7	55.7	55.7	55.0	55.3	56.3	54.8	63.4	61.0	50.3
3	Bensenville	60.4	59.0	58.6	60.4	62.7	59.2	58.4	59.8	59.5	61.3	60.5	61.3	59.1	60.1	71.3	67.3	64.9
4	Schiller Park	61.8	62.3	60.1	61.3	57.8	57.2	57.6	59.3	60.1	60.4	58.5	57.7	62.4	59.5	62.6	62.6	58.8
5	Chicago	58.7	59.0	58.9	57.8	59.7	56.4	56.7	57.7	58.7	59.5	60.4	59.0	57.9	58.5	60.8	59.8	61.9
6	Chicago	57.6	57.2	56.6	57.1	55.9	54.5	57.6	57.8	58.9	58.0	58.0	58.4	57.4	57.3	61.3	59.6	57.8
7	Des Plaines	58.9	59.6	59.5	59.3	59.5	58.3	60.9	57.4	58.0	57.9	57.9	58.3	58.9	58.8	65.4	62.0	48.5
8	Des Plaines	64.9	64.7	64.4	64.7	61.2	63.3	68.5	66.2	67.3	65.2	65.4	67.4	67.6	65.3	70.0	68.8	60.8
10	Rolling Meadows	58.0	61.1	59.1	60.0	59.1	56.3	58.7	59.4	59.7	60.6	59.0	59.5	58.4	59.2	59.0	60.8	48.9
11	Chicago	58.5	58.2	56.9	55.9	54.7	54.6	58.3	59.4	59.3	58.2	56.4	59.0	59.0	57.5	60.9	60.7	50.3
12	Elk Grove Village	56.8	58.1	60.9	54.1	58.5	56.4	58.2	58.5	60.7	62.0	61.6	58.1	58.1	58.7	66.7	62.1	57.6
13	Elk Grove Village	73.3	74.1	74.5	73.5	72.4	70.0	73.7	74.6	75.3	76.6	75.8	75.4	74.7	74.1	80.0	77.6	64.6
14	Elk Grove Village	62.3	62.5	61.5	60.8	59.4	59.5	62.3	62.3	63.5	63.1	63.3	63.1	62.9	62.0	67.6	65.7	54.5
15	Franklin Park	60.6	60.0	59.3	58.9	58.7	55.0	58.0	58.7	58.2	58.7	56.7	56.9	60.4	58.3	64.1	62.6	53.6
16	Franklin Park	71.0	71.2	67.8	71.4	71.6	67.2	70.6	65.8	72.4	70.3	69.2	68.6	71.2	69.8	72.2	72.1	63.4
17	Harwood Heights	62.3	64.7	65.9	66.2	66.4	65.1	64.4	65.4	65.4	65.6	66.1	64.8	63.3	65.2	66.4	65.4	57.9
19	Stone Park	59.6	60.5	59.9	59.0	59.4	57.8	57.5	58.1	59.8	61.0	60.6	58.6	59.1	59.3	64.7	61.7	51.6
20	Mount Prospect	61.0	62.8	62.1	60.6	60.1	60.0	61.7	62.1	61.1	60.0	60.6	60.7	62.4	61.1	63.5	62.4	49.1
21	Mount Prospect	55.5	55.6	53.7	54.0	51.3	52.8	56.2	55.7	56.3	54.3	55.3	56.4	56.8	54.8	59.6	58.6	53.6
22	Norridge	63.6	65.8	67.0	68.0	68.0	67.2	66.2	67.2	66.3	66.1	67.3	66.8	64.9	66.6	69.2	67.7	59.2
23	Northlake	64.3	66.0	64.1	64.9	63.5	61.9	62.4	64.3	62.4	65.1	64.5	62.3	64.7	63.8	73.5	69.1	59.6
24	Park Ridge	56.0	56.2	55.6	55.8	54.8	54.4	58.0	56.8	57.2	56.6	57.5	56.9	57.4	56.3	60.3	58.8	50.6
25	Park Ridge	59.6	59.6	61.2	61.3	59.6	60.5	61.3	64.1	61.4	61.4	60.6	62.6	60.2	61.1	69.1	61.8	66.7
26	Park Ridge	58.7	57.8	59.6	59.8	59.6	56.7	60.0	57.3	---	---	58.0	60.1	61.5	58.8	64.0	61.2	59.5
27	Rosemont	64.6	63.5	63.8	64.1	62.4	61.3	65.1	65.0	65.7	65.7	64.1	66.4	66.2	64.3	73.0	67.6	70.2
28	Schiller Park	73.7	75.9	77.3	78.5	79.3	78.2	76.1	77.2	76.3	76.7	78.3	75.9	74.3	77.0	79.6	78.7	67.9
32	Wood Dale	59.4	60.6	61.4	60.7	62.6	60.4	60.0	59.9	57.4	58.4	58.4	56.9	57.8	59.7	71.2	66.4	63.8
34	Elk Grove Village	59.1	57.5	57.7	58.7	59.2	59.6	61.2	60.3	58.2	58.4	58.2	57.1	57.5	58.8	66.3	61.2	61.4
35	Unincorporated Cook	61.7	63.7	63.4	63.6	65.6	62.4	62.7	64.3	64.5	66.6	66.5	62.6	62.2	64.0	70.8	65.4	54.7
37	Mount Prospect	55.2	51.8	55.4	52.4	52.3	51.8	54.0	54.7	55.3	54.4	54.4	55.4	55.7	53.9	55.1	57.0	50.5

--No data due to monitor malfunction.

1. **Red** represents an increase of 1 dB or more from the same month of the previous year (8 monitors). **Green** represents a decrease of 1dB or more from the same month of the previous year (7 monitors).
2. **Red** represents an increase of 1 dB or more from the modeled 1997 noise contour level (0 monitors). **Green** represents a decrease of 1dB or more from the modeled 1997 noise contour level (29 monitors).

**Aircraft Noise Report - Portable Noise Monitors**

Chicago O'Hare International Airport

Period: August 2008

Metric: Aircraft DNL




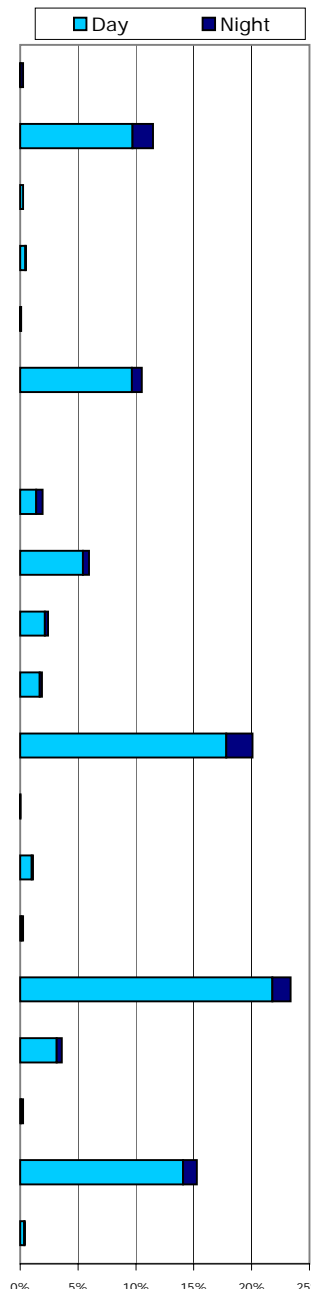

















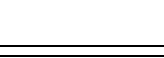
<i>RMT #</i>	<i>Community</i>	<i>Monitored Noise Levels</i>										<i>Year To Date</i>		
		<i>Sep 07</i>	<i>Oct 07</i>	<i>Nov 07</i>	<i>Dec 07</i>	<i>Jan 08</i>	<i>Feb 08</i>	<i>Mar 08</i>	<i>Apr 08</i>	<i>May 08</i>	<i>June 08</i>		<i>July 08</i>	<i>Aug 08</i>
29	Wood Dale					62.5	62.4	62.8	65.6	63.6	---	62.5	65.1	63.7
30	Wood Dale							45.9	53.6	52.8	56.7	53.6	55.1	53.9
33	Park Ridge					53.8	52.9	55.7	58.3	65.2	57.6	57.2	62.3	59.8





**Aircraft Fleet Mix Report**  
 Chicago O'Hare International Airport  
 Period: August 2008



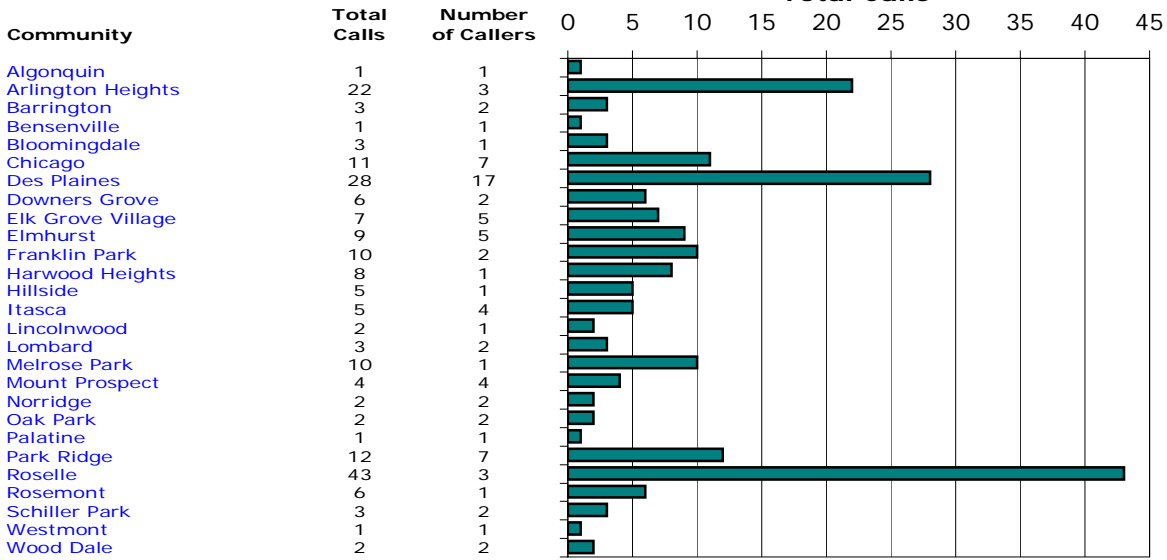
Jet Aircraft	Average Operations Per Day (All Hours)	Average Operations Per Night (10 p.m. - 7 a.m.)	Percent of Total All Hours	Percent of Total 10 p.m. - 7 a.m.	Percentage of Total
 A300	7	7	0.3%	2.3%	
 A320	315	49	11.5%	16.6%	
 A330	7	0	0.2%	0.0%	
 A340	14	2	0.5%	0.5%	
 B720	3	2	0.1%	0.6%	
 B737	288	24	10.5%	8.0%	
 B730	0	0	0.0%	0.0%	
 B747	54	16	2.0%	5.4%	
 B757	164	16	6.0%	5.2%	
 B767	67	9	2.4%	2.9%	
 B777	52	5	1.9%	1.8%	
 CARJ	550	63	20.1%	21.0%	
 DC80	1	1	0.0%	0.4%	
 DC90	31	3	1.1%	1.1%	
 DC10	8	5	0.3%	1.6%	
 E145	640	44	23.4%	14.8%	
 E170	99	13	3.6%	4.4%	
 MD11	7	5	0.3%	1.7%	
 MD80	418	33	15.3%	11.1%	
<b>Other Aircraft</b>	11	1	0.4%	0.5%	
<b>Total</b>	<b>2,736</b>	<b>298</b>	<b>100.0%</b>	<b>100.0%</b>	

**Noise Hotline Report**  
Chicago O'Hare International Airport  
August 2008



**Monthly Hotline Calls by Community<sup>1</sup>**

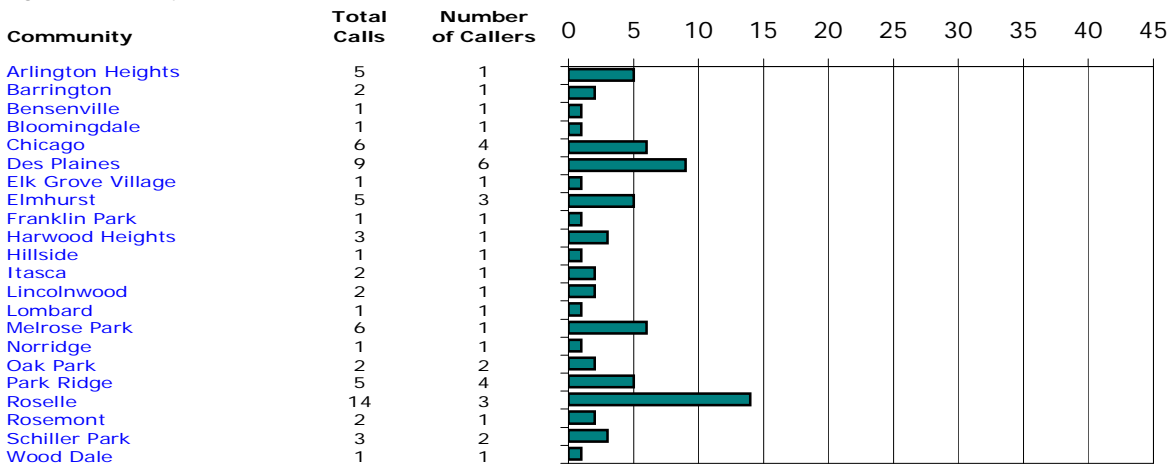
All Hours



**August 2008 Total**      **210**      **81**  
July 2008 Total      138      48

**Monthly Hotline Calls by Community<sup>1</sup>**

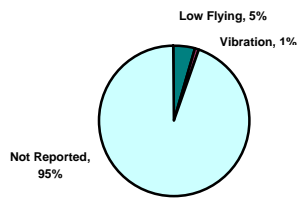
Nighttime - 10:00 p.m. - 7:00 a.m.



**August 2008 Total**      **74**      **39**  
July 2008 Total      46      26

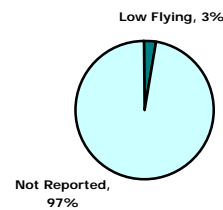
**Nature of Hotline Call Noise Complaint**

All Hours



**Nature of Hotline Call Noise Complaint**

Nighttime - 10:00 p.m. - 7:00 a.m.



<sup>1</sup> Complaint calls made within the State of Illinois.