



1st Quarter 2010 Report

Fly Quiet Program

Chicago O'Hare International Airport

Chicago
Department of Aviation



Visit the Community Noise Resource Center
on the Internet at

www.flychicago.com

1st Quarter 2010 Report



Background

In 1997, Mayor Richard M. Daley announced that airlines operating at O'Hare International Airport had agreed to use designated noise abatement flight procedures in accordance with the Fly Quiet Program. The Fly Quiet Program was implemented in an effort to further reduce the impacts of aircraft noise on the surrounding neighborhoods.

The Fly Quiet Program is a voluntary program that encourages pilots and air traffic controllers to use designated nighttime preferential runways and flight tracks developed by the Chicago Department of Aviation in cooperation with the O'Hare Noise Compatibility Commission, the airlines, and the air traffic controllers. These preferred routes direct aircraft over less-populated areas, such as forest preserves, highways, as well as commercial and industrial areas.

As part of the Fly Quiet Program, the Chicago Department of Aviation prepares a Quarterly Fly Quiet Report. This report is shared with Chicago Department of Aviation officials, the O'Hare Noise Compatibility Commission, the airlines, and the general public. The Fly Quiet Report contains detailed information regarding nighttime runway use, flight operations, flight tracks, and noise complaints and 24-hour tracking of ground run-ups. The data presented in this report is compiled from the Airport Noise Management System (ANMS) and airport operation logs.

Operations

O'Hare has seven runways that are all utilized at different times depending on a number of conditions including weather, airfield pavement and construction activities and air traffic demand.

The *Nighttime Runway Use Report* compares the average percentage of use for each runway during the current quarter with the previous quarter as well as with the 12-month average. The percentage of use for departures and arrivals is shown graphically for each runway. This data is presented for all aircraft types during nighttime hours of 10:00 p.m. to 7:00 a.m. The *Nighttime Hourly Operations Report* compares the arrivals and departures by hour to the current quarter with the previous quarter as well as with the 12-month average. Percentage is a ratio whereas a percentage point is the difference between two percentages.

Highlights for **1Q 2010** include:

Departures

Most used nighttime departure runway: **32L – 50%**
32L night departures increased by **4pp** from 4Q 2009
14R night departures decreased by **4pp** from 4Q 2009

Arrivals

Most used nighttime arrival runway: **28 – 38%**
28 night arrivals increased by **17pp** from 4Q 2009
14R night arrivals decreased by **13pp** from 4Q 2009

pp = Percentage Points

Nighttime operations represent **10%** of the overall daily operations

Preferential Flight Tracks

As part of the Fly Quiet Program, the Chicago Department of Aviation worked with the O'Hare Noise Compatibility Commission, the airlines, and the air traffic controllers to identify preferred runways and flight tracks for nighttime operations at O'Hare. The preferred routes direct aircraft over less-populated areas in an effort to limit the effects of noise on the surrounding communities.

Adherence to nighttime departure preferential flight tracks is measured by the ANMS. A detailed airline deviation summary is provided for the two most-used departure runways (32L and 22L); the airline deviation is also compared to the data from the same quarter of the previous year.

An average deviation graphic and table is provided for all runways. The *Nighttime Flight Track Report* measures deviation (in nautical miles) from the preferred flight tracks and is divided into three categories:

- **less than 0.5 miles**
- **between 0.5 and 1.0 miles**
- **greater than 1.0 miles**

Noise Complaints

The Chicago Department of Aviation maintains a toll-free O'Hare noise hotline (**1-800-435-9569**) and an on-line service at www.flychicago.com for citizens to express their concerns about particular incidents or about aircraft noise levels in general. The *Nighttime Noise Complaint Report* summarizes the number of complaints received and where the complainants were located. The tabular report lists the number of complaints by community as well as the number of individual complainants. The graph at the bottom of the page illustrates the nature of the complaints during the current quarter. Complaints include all complaints made within the State of Illinois to the O'Hare Noise Hotline toll-free number or on-line feature.

Ground Run-ups

Ground run-ups are aircraft engine tests that are performed to ensure that the engines are working properly after maintenance is performed. Ground run-ups typically occur at night and generate high levels of noise for extended periods of time. In 1997, the Chicago Department of Aviation constructed a ground run-up enclosure (GRE) at O'Hare to help reduce the noise impacts of ground run-ups on the communities surrounding the airport. This facility was the first of its kind in the United States. When it is not possible to use the GRE, run-ups are performed on the hold pads adjacent to Runways 10 and 32L.

The *Airline Ground Run-up Report* displays the total number of ground run ups from the current quarter by airline. The *Aircraft Ground Run-up Report* displays the total number of ground run ups from the current quarter by aircraft. Both reports compare the percent utilization of the GRE facility to the percent utilization of the 32L and 10 hold pads for ground run-ups. It also compares the current quarter's GRE usage to the 12-month average and to the same quarter of the previous year.

Aircraft Noise

The *Nighttime Aircraft Noise Report* summarizes noise measurements from each of the 33 noise monitors located around O'Hare. The data presented summarizes the Equivalent Sound Level (Leq). Leq is used to identify the average sound level over a given period of time (in this case 10 p.m. to 7 a.m.) and is the metric used for this analysis as it is the most appropriate noise measure for periods of time less than 24 hours.

The data in this report displays the average Leq for the current quarter and its comparison to the previous four quarters. It also compares the current quarter's Leq to the 12-month average. Numbers displayed in **red** represent an increase of at least 1 dB over the aircraft Leq from the same quarter of the previous year whereas numbers displayed in **green** represent a decrease of at least 1 dB from the aircraft Leq from the same quarter of the previous year.



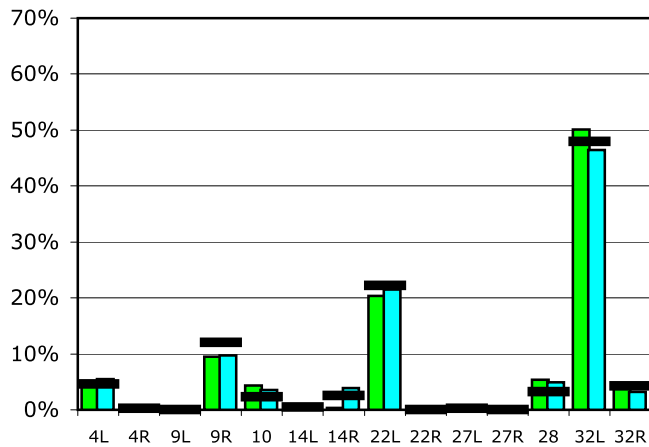
Runway Use

Source: Airport Noise Management System (ANMS)

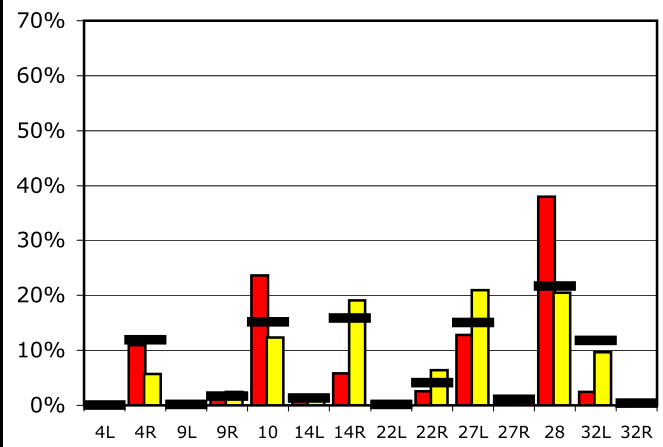
Runway Utilization

	4L	4R	9L	9R	10	14L	14R	22L	22R	27L	27R	28	32L	32R
Average Daily Departures														
1Q 2010	4	0	0	7	3	0	0	16	0	0	0	4	39	3
4Q 2009	4	0	0	7	3	1	3	16	0	0	0	4	34	2
12 Month Avg.	4	0	0	10	2	0	2	18	0	0	0	3	39	3
Average Daily Arrivals														
1Q 2010	0	12	0	2	25	2	6	0	3	14	0	40	3	0
4Q 2009	0	6	0	3	13	1	20	0	7	22	1	22	10	0
12 Month Avg.	0	13	0	2	17	2	18	0	5	17	1	25	13	0

Departures

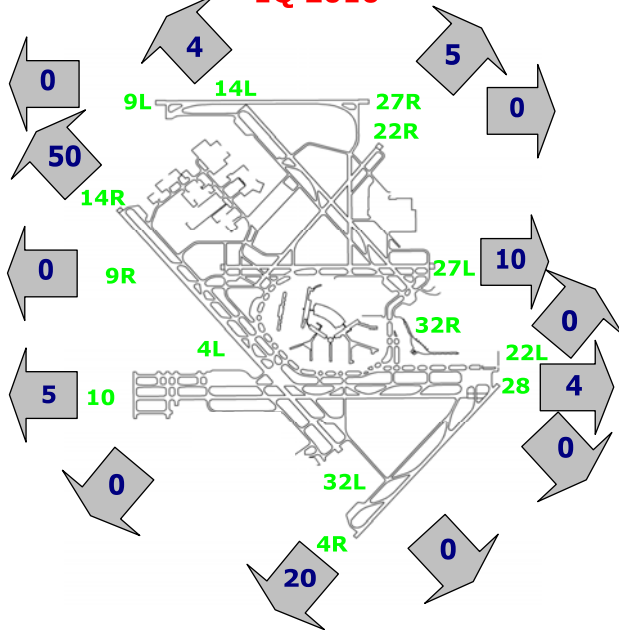


Arrivals



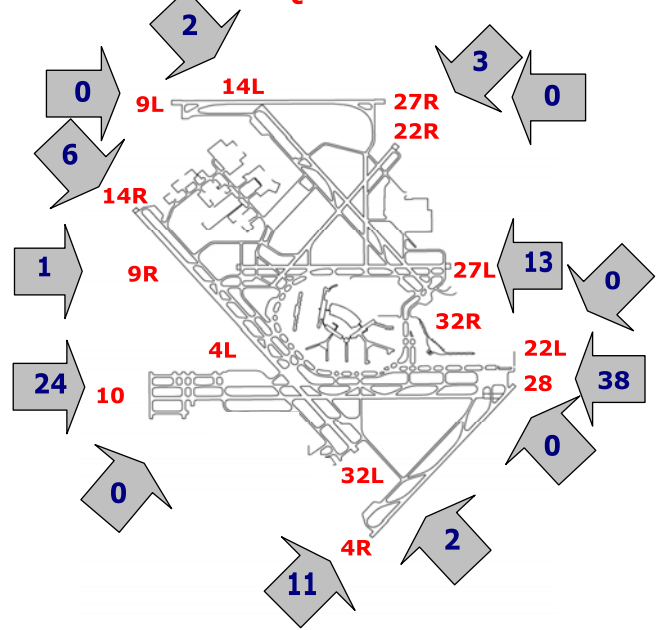
Percentage Departure Utilization

1Q 2010



Percentage Arrival Utilization

1Q 2010



Nighttime Hourly Operations Report

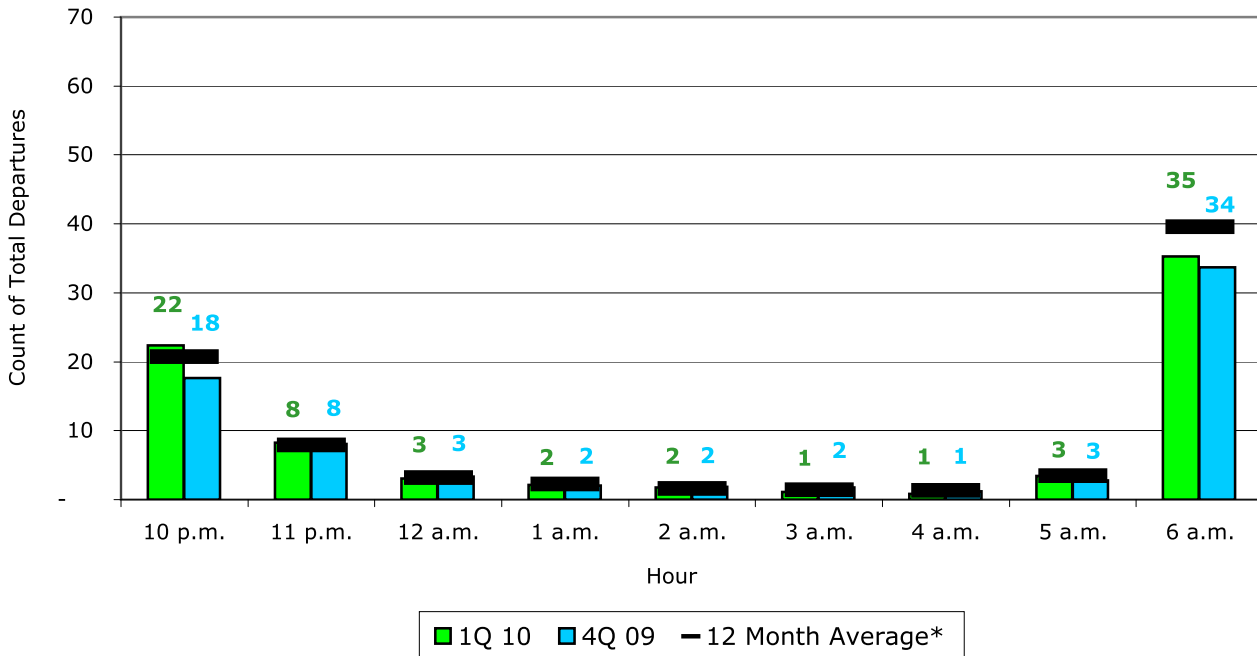
Chicago O'Hare International Airport

Period: 1st Quarter 2010

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



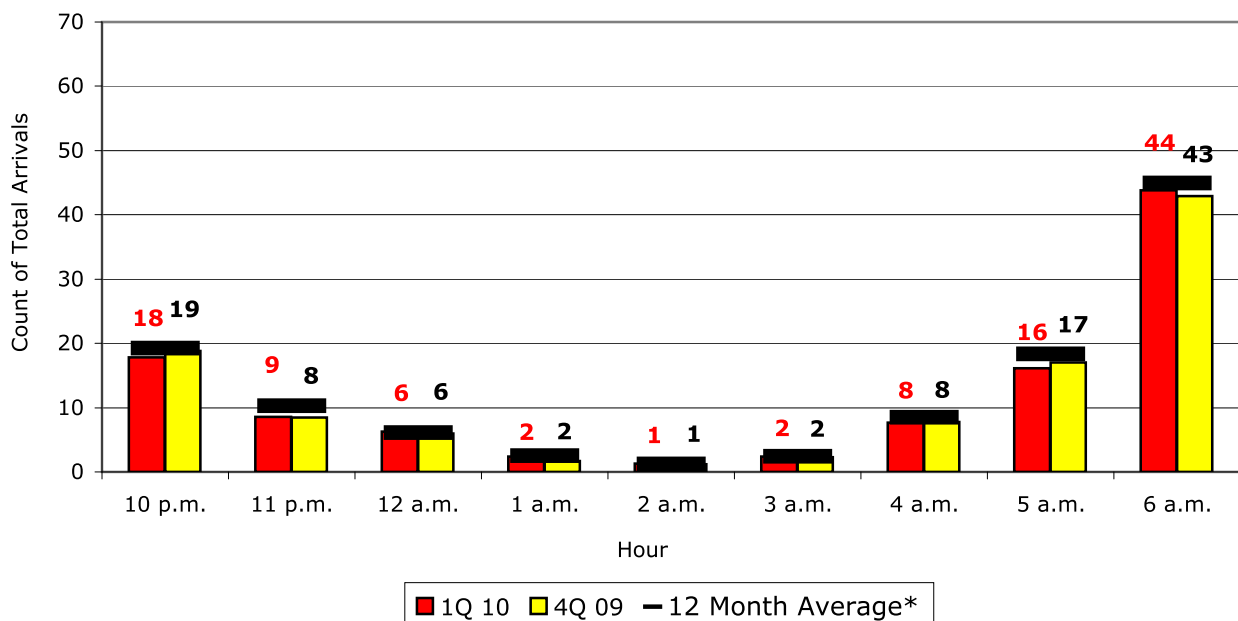
Average Departures by Hour



Operations by Hour (%)

	10 p.m.	11 p.m.	12 a.m.	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	Total
1Q 2010										
Departures	28.6%	10.6%	4.0%	2.7%	2.3%	1.4%	1.0%	4.4%	45.1%	100%
Arrivals	16.7%	8.1%	5.9%	2.3%	1.3%	2.3%	7.2%	15.1%	41.1%	100%

Average Arrivals by Hour



* 12 Month Average equals the average of 2Q 2009, 3Q 2009, 4Q 2009 and 1Q 2010.

Nighttime Preferential Flight Track Summary



























Chicago O'Hare International Airport

Period: 1st Quarter 2010

Time of Day: 11:00 p.m. to 6:00 a.m.



Runway 32L Departures

Airline	1st Quarter 2010		1st Quarter 2009	
	Departures	Average Deviation (nautical miles)	Departures	Average Deviation (nautical miles)
American Airlines 	49	0.72	33	0.69
Asiana Airlines 	45	0.28	60	0.31
Air Jamaica 	1	0.28	---	---
Mesa Airlines/United Express 	21	0.67	42	0.86
Atlantic Southeast Airlines 	3	0.75	---	---
ExpressJet 	20	1.15	2	1.55
Continental Airlines 	40	0.44	56	0.46
Cathay Pacific 	34	0.52	39	0.58
Delta Air Lines 	3	0.13	2	0.60
DHL 	15	0.47	51	0.51
American Eagle 	70	1.08	113	0.58
Federal Express 	104	0.68	136	0.47
Lufthansa 	3	0.93	3	0.85
GoJet Airlines/United Express 	15	0.51	15	1.11
USA 3000 Airlines 	1	0.42	1	0.21
Trans States/United Express 	23	0.91	14	0.67
Mexicana 	49	0.32	29	0.58
Nippon Cargo Airlines 	37	0.20	35	0.14
Spirit Airlines 	4	1.18	3	1.47
Shanghai Airlines Cargo 	11	0.27	---	---
SkyWest/United Express 	38	0.67	28	0.64
TACA 	13	0.40	6	0.77
Shuttle America/United Express 	9	1.25	21	0.87
United Airlines 	55	0.79	114	0.79
UPS 	16	0.52	15	0.12
US Airways 	47	0.48	86	0.48
Overall	679	0.62	818	0.67

Green represents a deviation of less than 0.5 nautical miles

Orange represents a deviation between 0.5 and 1.0 nautical miles

Red represents a deviation greater than 1.0 nautical mile



















Nighttime Preferential Flight Track Summary

Chicago O'Hare International Airport

Period: 1st Quarter 2010

Time of Day: 11:00 p.m. to 6:00 a.m.



Runway 22L Departures	1st Quarter 2010		1st Quarter 2009	
	Airline	Departures	Average Deviation (nautical miles)	Departures
American Airlines 	25	0.26	6	0.86
Atlantic Southeast Airlines 	1	0.20	---	---
ExpressJet 	3	0.68	---	---
Continental Airlines 	1	0.00	---	---
DHL 	7	0.33	2	1.24
American Eagle 	5	1.00	4	1.63
Federal Express 	27	0.40	1	0.08
GoJet Airlines/United Express 	2	1.58	1	0.40
USA 3000 Airlines 	1	0.37	5	0.41
Trans States/United Express 	1	0.00	2	0.78
Mexicana 	10	0.32	1	0.02
Shanghai Airlines Cargo 	1	0.23	---	---
SkyWest/United Express 	10	0.61	13	0.44
TACA 	2	1.07	---	---
Shuttle America/United Express 	2	1.30	1	1.82
United Airlines 	10	1.19	4	0.88
UPS 	4	0.32	---	---
US Airways 	5	1.01	12	0.44
Overall	112	0.58	40	0.78

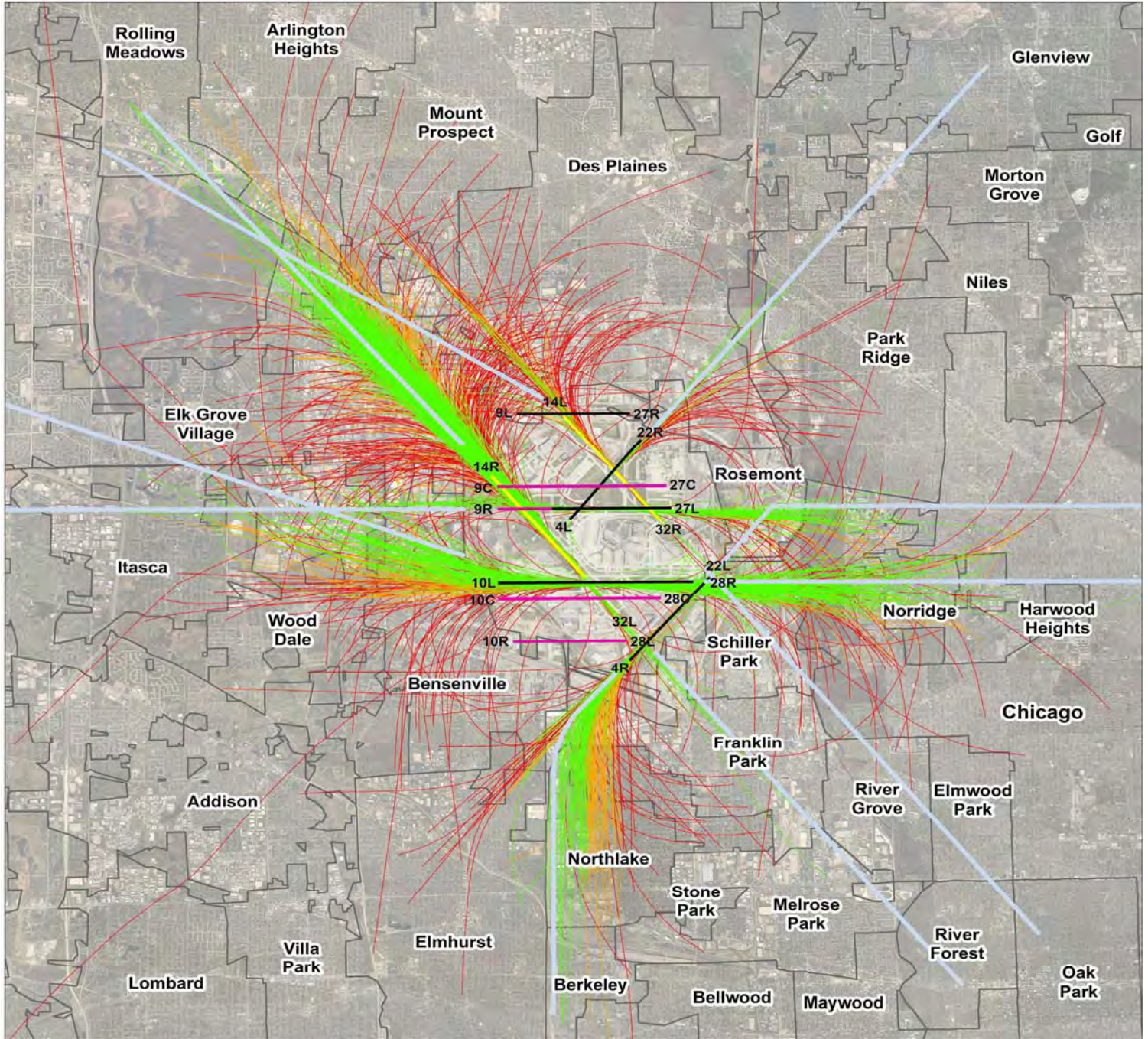
Green represents a deviation of less than 0.5 nautical miles
Orange represents a deviation between 0.5 and 1.0 nautical miles
Red represents a deviation greater than 1.0 nautical mile

Nighttime Flight Track Report

Chicago O'Hare International Airport

Period: 1st Quarter 2010

Time of Day: 11:00 p.m. to 6:00 a.m.



————— Preferential Flight Track
 ————— Existing Runways to be Decommissioned
 ————— Existing Runways
 ————— Future Runways

Runway Departures (in %) versus Deviation (in nautical miles)														
Deviation	4L	4R	9L	9R	10	14L	14R	22L	22R	27L	27R	28	32L	32R
< 0.5	22%	33%	n/a	59%	72%	60%	53%	38%	n/a	86%	n/a	44%	65%	12%
0.5 < 1.0	5%	67%	n/a	16%	11%	0%	18%	38%	n/a	0%	n/a	27%	14%	26%
> 1.0	73%	0%	n/a	25%	17%	40%	29%	24%	n/a	14%	n/a	29%	21%	62%

n/a = not applicable

Flight tracks shown until 3,000' Mean Sea Level (MSL)

Nighttime Noise Complaint Report

Chicago O'Hare International Airport

Period: 1st Quarter 2010

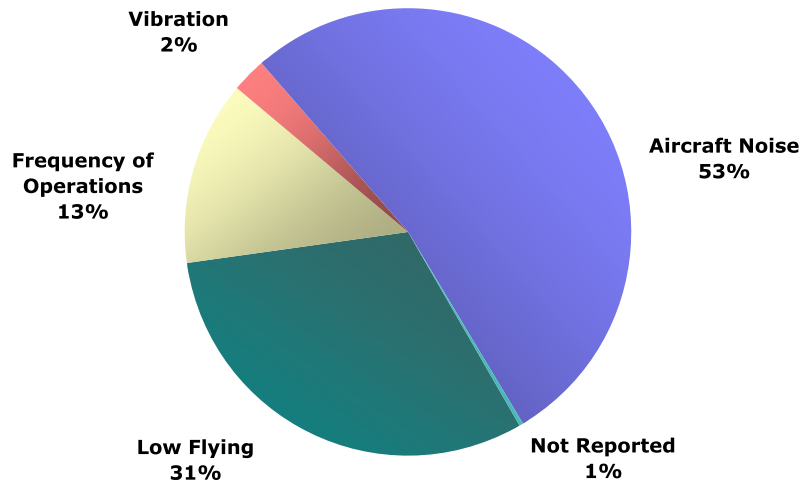
Time of Day: 10:00 p.m. to 7:00 a.m.



Complaints by Community¹

Community	Total Complaints	Number of Complainants	Total Complaints						
			0	25	50	75	100	125	150
Arlington Heights	14	3	[Bar chart showing 14 total complaints]						
Bensenville	13	8	[Bar chart showing 13 total complaints]						
Chicago	169	47	[Bar chart showing 169 total complaints]						
Des Plaines	169	10	[Bar chart showing 169 total complaints]						
Elgin	26	4	[Bar chart showing 26 total complaints]						
Elmhurst	127	113	[Bar chart showing 127 total complaints]						
Gilberts	1	1	[Bar chart showing 1 total complaint]						
Hillside	9	3	[Bar chart showing 9 total complaints]						
Itasca	30	13	[Bar chart showing 30 total complaints]						
Kildeer	3	3	[Bar chart showing 3 total complaints]						
Medinah	1	1	[Bar chart showing 1 total complaint]						
Melrose Park	1	1	[Bar chart showing 1 total complaint]						
Morton Grove	23	11	[Bar chart showing 23 total complaints]						
Niles	5	5	[Bar chart showing 5 total complaints]						
Norridge	8	6	[Bar chart showing 8 total complaints]						
Palatine	1	1	[Bar chart showing 1 total complaint]						
Park Ridge	169	91	[Bar chart showing 169 total complaints]						
Rolling Meadows	1	1	[Bar chart showing 1 total complaint]						
Roselle	1	1	[Bar chart showing 1 total complaint]						
Schaumburg	1	1	[Bar chart showing 1 total complaint]						
Schiller Park	6	2	[Bar chart showing 6 total complaints]						
Wood Dale	6	4	[Bar chart showing 6 total complaints]						
1Q 2010 Total	784	330							
4Q 2009 Total	1,003	350							
12 Month Average ²	1,139	497							

Nature of Noise Complaints



¹ Only includes calls made from the State of Illinois.

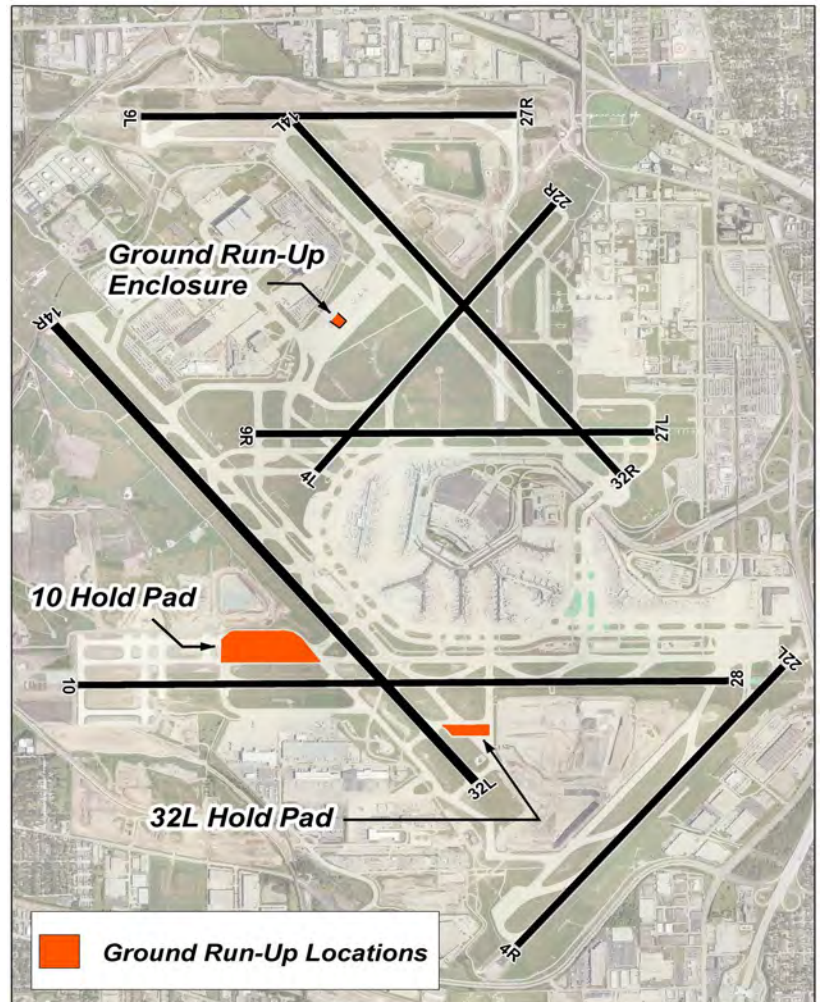
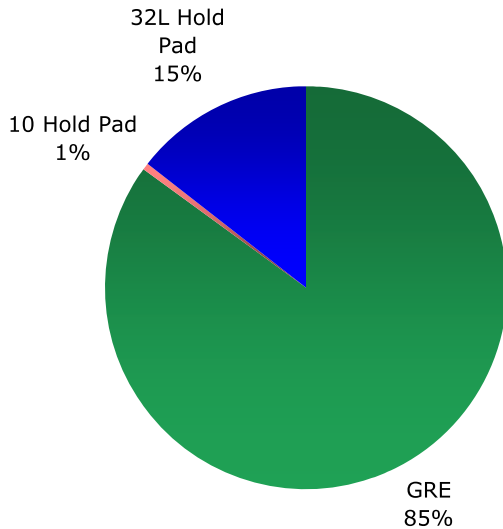
² 12 Month Average equals average of: 2Q 2009, 3Q 2009, 4Q 2009 and 1Q 2010.

Airline Ground Run-Up Report
 Chicago O'Hare International Airport
 Period: 1st Quarter 2010
 Time of Day: 24 Hours













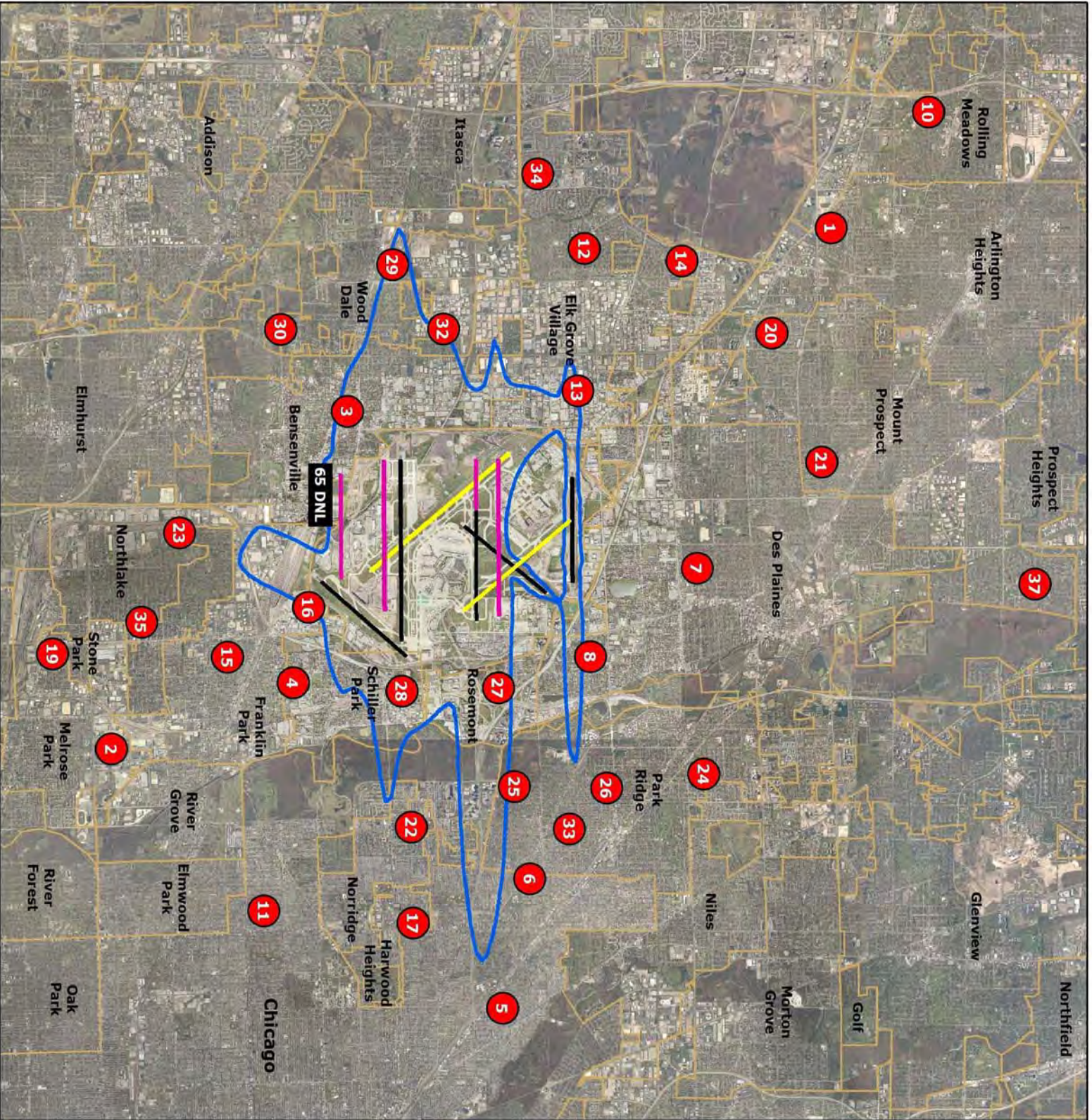
All Airlines	Location	1st Quarter 2010		4th Quarter 2009		12 Month Avg. ¹	
		Run-ups	Percentage	Run-ups	Percentage	Run-ups	Percentage
	GRE	158	85%	238	83%	210	85%
	10 Hold Pad	1	1%	0	0%	1	0%
	32L Hold Pad	27	15%	50	17%	36	15%
	Total	186	100%	288	100%	247	100%
	GRE	32	70%	51	82%	48	79%
	10 Hold Pad	0	0%	0	0%	0	0%
	32L Hold Pad	14	30%	11	18%	12	20%
	Total	46	100%	62	100%	61	100%
	GRE	58	100%	94	162%	66	99%
	10 Hold Pad	0	0%	0	0%	0	0%
	32L Hold Pad	0	0%	1	2%	1	1%
	Total	58	100%	95	164%	66	100%
	GRE	12	86%	27	87%	38	90%
	10 Hold Pad	0	0%	0	0%	0	0%
	32L Hold Pad	2	14%	4	13%	4	10%
	Total	14	100%	31	100%	42	100%
	GRE	19	63%	33	110%	33	65%
	10 Hold Pad	1	3%	0	0%	0	1%
	32L Hold Pad	10	33%	31	103%	17	35%
	Total	30	100%	64	213%	50	100%
Others	GRE	37	97%	33	92%	27	95%
	10 Hold Pad	0	0%	0	0%	0	0%
	32L Hold Pad	1	3%	3	8%	2	5%
	Total	38	100%	36	100%	28	100%

**Ground Run-up Locations
1Q 2010**



¹12 Month Average equals the average of:
 2Q 2009, 3Q 2009, 4Q 2009 and 1Q 2010

Aircraft	1st Quarter 2010			1st Quarter 2009		
	Run-ups Total	Run-ups in GRE	Percentage Use of GRE	Run-ups Total	Run-ups in GRE	Percentage Use of GRE
A319 	11	9	82%	19	14	74%
A320 	16	15	94%	16	12	75%
B737 	5	5	100%	6	3	50%
B747 	3	0	0%	3	1	33%
B757 	16	7	44%	17	8	47%
B767 	11	3	27%	8	2	25%
B777 	4	1	25%	1	0	0%
DC9Q 	2	2	100%	2	2	100%
E135/145 	52	52	100%	27	26	96%
MD80 	24	22	92%	37	32	86%
Regional Jet (unspecified type)	39	39	100%	29	27	93%
Other	3	3	100%	3	3	100%
TOTAL	186	158	85%	168	130	77%



O'Hare International Airport

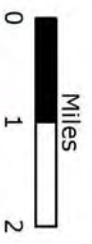
Remote Monitoring Terminals (RMTs)

City of Chicago
 Richard M. Daley
 Mayor

Department of Aviation
 Rosemarie S. Andolino
 Commissioner

Legend

- Existing RMT Sites (33)
- Existing Runways
- Existing Runways to be Decommissioned
- Future Runways
- O'Hare Modernization Program Full Build Out Noise Contour (65 DNL)
- Community Boundaries



Nighttime Aircraft Noise Report
 Chicago O'Hare International Airport
 Period: 1st Quarter 2010
 Time of Day: 10:00 p.m. to 7:00 a.m.
 Metric: Aircraft Leq



RMT #	Community	Last 4 Quarters Monitored Noise Levels ¹				1Q 2010	1Q 2009	12 Month Avg.
		2Q 2009	3Q 2009	4Q 2009	1Q 2010			
1	Arlington Heights	52.3	51.9	51.6	48.8	50.2	51.4	
2	Melrose Park	49.7	49.8	49.9	45.2	47.0	49.0	
3	Bensenville	47.3	46.0	49.9	49.5	49.6	48.5	
4	Schiller Park	47.8	48.6	48.9	43.9	45.1	47.7	
5	Chicago	49.4	50.1	50.9	48.4	47.2	49.8	
6	Chicago	48.8	47.4	48.6	47.1	46.2	48.0	
7	Des Plaines	45.1	44.0	42.6	42.7	44.3	43.7	
8	Des Plaines	51.8	49.3	51.6	49.2	52.1	50.7	
10	Rolling Meadows	52.3	53.5	51.8	47.0	50.2	51.7	
11	Chicago	49.6	46.1	46.8	45.1	46.0	47.3	
12	Elk Grove Village	48.8	48.6	49.6	47.9	48.4	48.8	
13	Elk Grove Village	66.9	66.5	66.1	60.0	64.3	65.6	
14	Elk Grove Village	53.9	54.2	53.7	52.2	51.9	53.5	
15	Franklin Park	51.4	52.3	52.6	46.4	50.8	51.2	
16	Franklin Park	55.5	55.9	56.0	53.3	55.0	55.3	
17	Harwood Heights	55.1	52.8	56.1	58.0	58.1	55.9	
19	Stone Park	41.2	45.6	45.6	43.0	44.3	44.2	
20	Mount Prospect	52.3	51.6	62.4	52.9	50.4	57.5	
21	Mount Prospect	47.8	46.2	45.8	45.0	44.9	46.3	
22	Norridge	55.8	54.4	57.0	55.0	60.3	55.7	
23	Northlake	49.6	54.5	53.8	55.0	49.9	53.7	
24	Park Ridge	45.8	43.2	44.3	43.4	43.2	44.3	
25	Park Ridge	48.7	45.2	48.9	48.7	45.3	48.1	
26	Park Ridge	43.4	44.5	46.5	46.2	41.8	45.3	
27	Rosemont	55.0	52.2	55.0	54.6	51.3	54.3	
28	Schiller Park	55.9	60.9	67.6	69.2	59.9	65.9	
29	Wood Dale	54.8	53.2	56.9	58.2	53.0	56.2	
30	Wood Dale	43.8	45.2	44.8	42.6	44.3	44.2	
32	Wood Dale	43.9	47.8	52.3	53.1	44.0	50.6	
33	Park Ridge	49.0	46.3	47.1	43.0	45.8	46.8	
34	Elk Grove Village	45.5	45.9	46.7	47.4	46.3	46.4	
35	Unincorporated Cook	44.1	42.3	43.3	41.2	46.3	42.9	
37	Mount Prospect	44.8	43.4	44.5	42.8	42.3	44.0	

¹ Leq (Equivalent Sound Level): The average sound energy level during a stated period of time.

Red represents an increase of 1 dB or more from same quarter of the previous year (10 monitors).

Green represents a decrease of 1 dB or more from same quarter of the previous year (14 monitors).



Chicago
Department of Aviation
O'Hare Noise Hotline: 1-800-435-9569
www.flychicago.com