



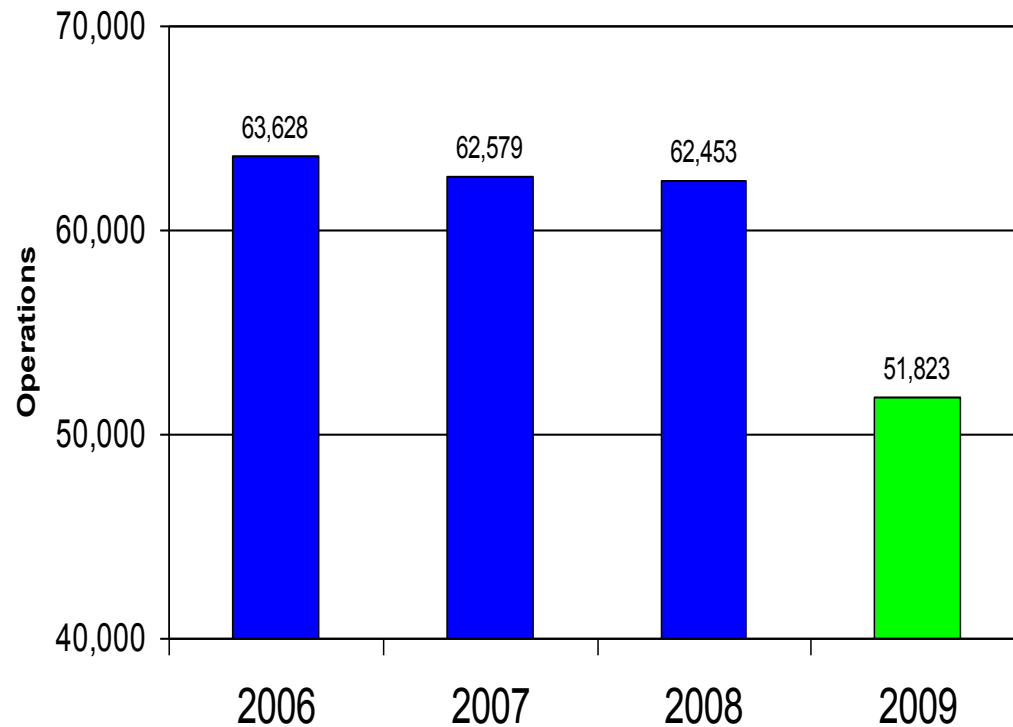
# ***Noise Compatibility Report***

**3<sup>rd</sup> Quarter 2009**

**Nov 13, 2009**

# Aircraft Operations

## 3rd Quarter Operations



Third quarter 2009 aircraft operations declined **17.0%** versus the third quarter of 2008.

# Fleet Mix



Third Quarter 2009	Landings & Takeoffs	Distribution
Air Carrier		
- Stage 2 with hush kit	78	0.15%
- Heavy (MD11, B757, etc.)	1,268	2.45%
- Other Stage 3	13,735	26.50%
Regional Jet	26,160	50.48%
Turboprop	7,863	15.17%
Air Taxi	502	0.97%
General Aviation	2,107	4.07%
Military	110	0.21%
	<b>51,823</b>	<b>100.0%</b>

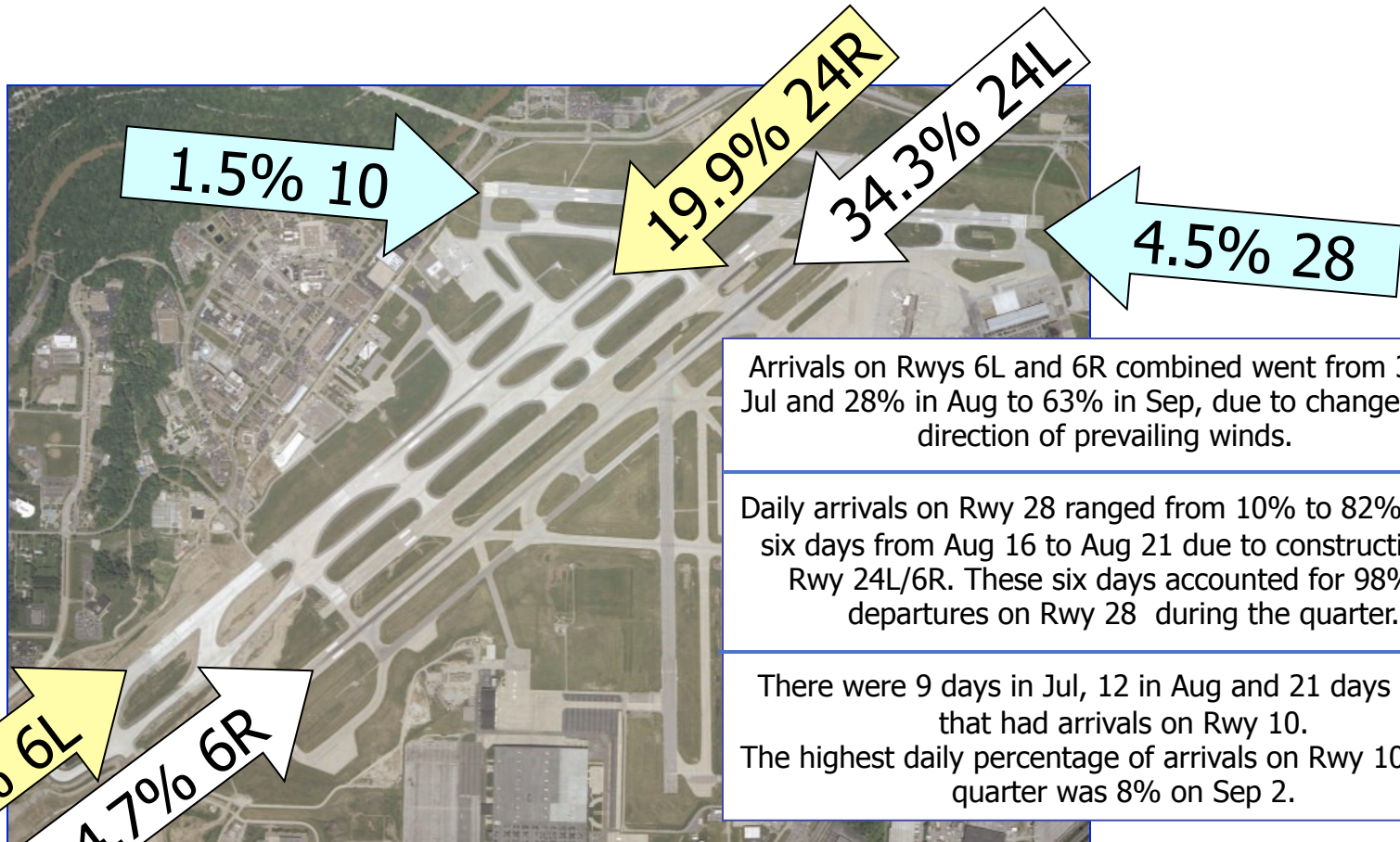
There were 128 MD11 operations during the 3<sup>rd</sup> Qtr of 2009, as compared to 124 in the 2<sup>nd</sup> Qtr.

Heavy aircraft operations increased slightly.

The number of Stage 2 (with hush kit) operations was 78, as compared to 102 in the 2<sup>nd</sup> Qtr.

Military operations increased significantly due to the Cleveland Air Show.

# Runway Use Landings



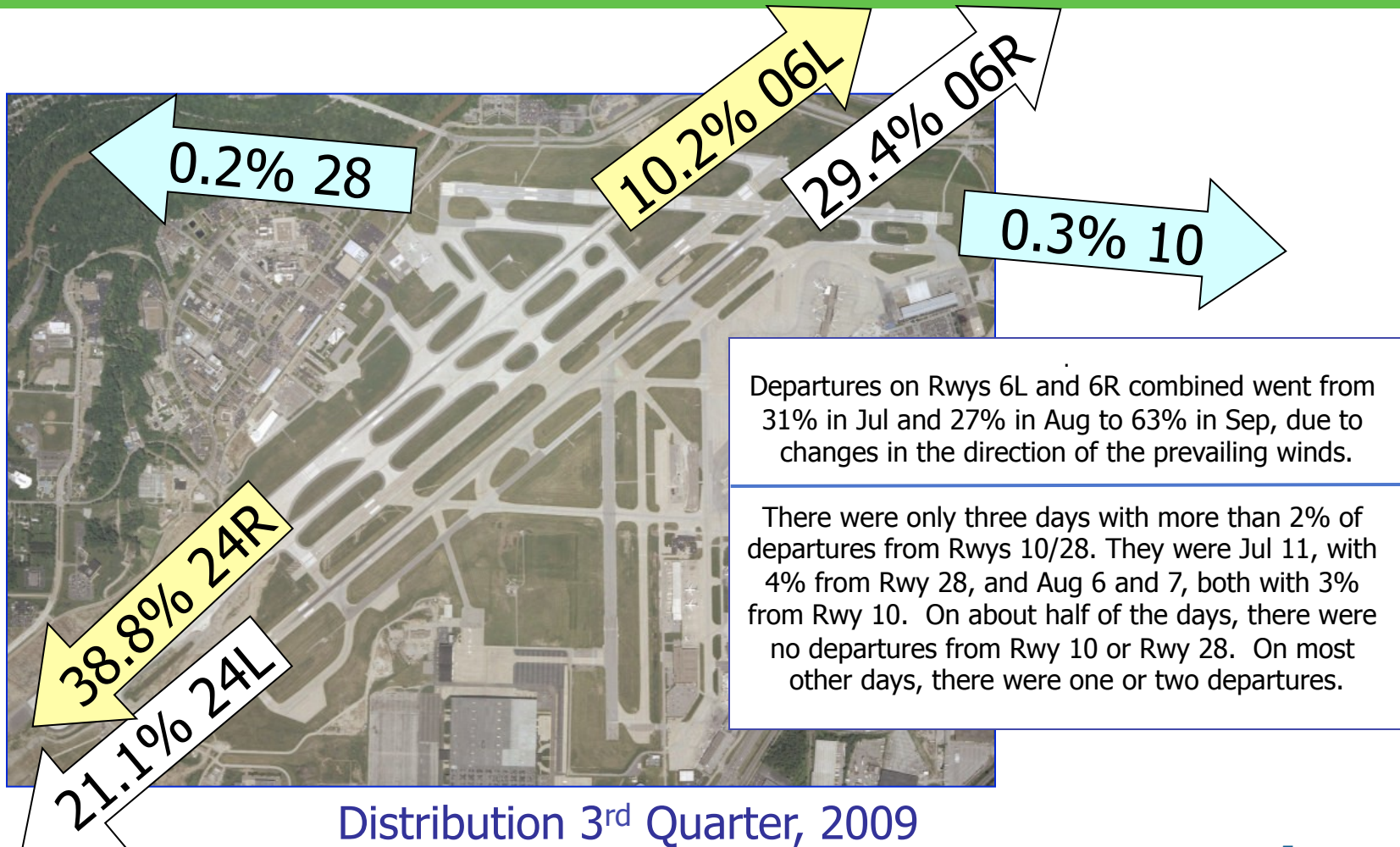
Arrivals on Rwy 6L and 6R combined went from 31% in Jul and 28% in Aug to 63% in Sep, due to changes in the direction of prevailing winds.

Daily arrivals on Rwy 28 ranged from 10% to 82% for the six days from Aug 16 to Aug 21 due to construction on Rwy 24L/6R. These six days accounted for 98% of departures on Rwy 28 during the quarter.

There were 9 days in Jul, 12 in Aug and 21 days in Sep that had arrivals on Rwy 10. The highest daily percentage of arrivals on Rwy 10 for the quarter was 8% on Sep 2.

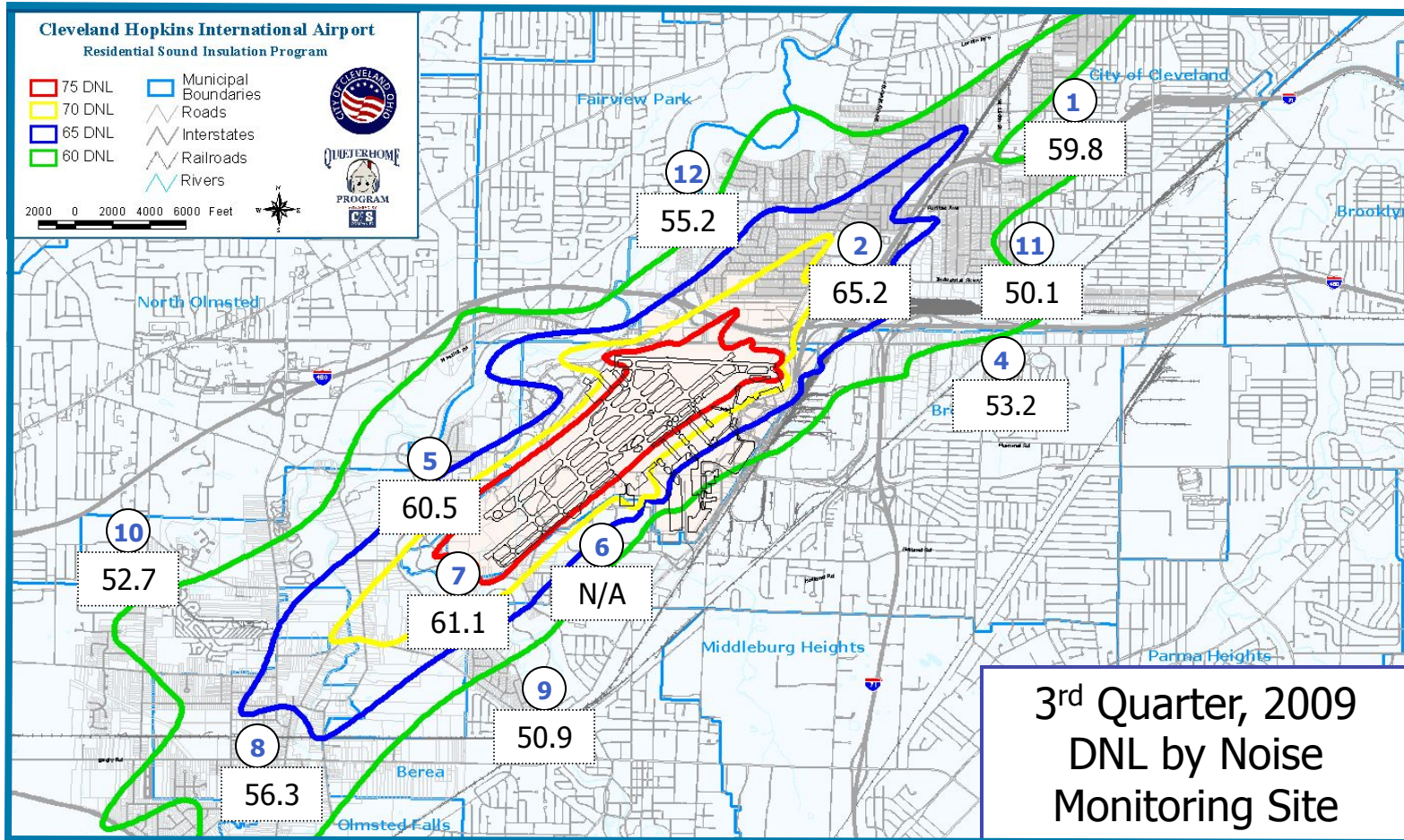
Distribution 3<sup>rd</sup> Quarter, 2009

# Runway Use Take-Offs

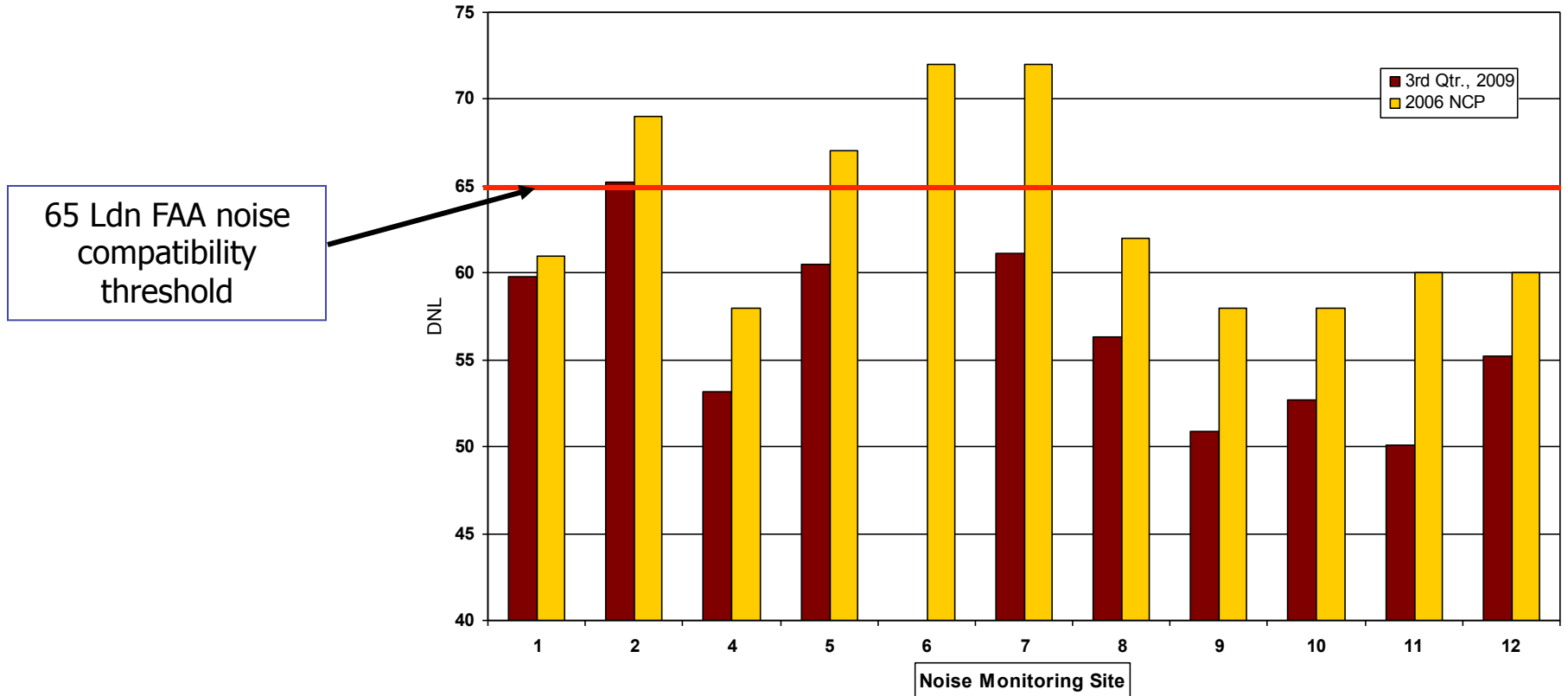




# Aircraft Noise



# DNL 3<sup>rd</sup> Quarter 2009

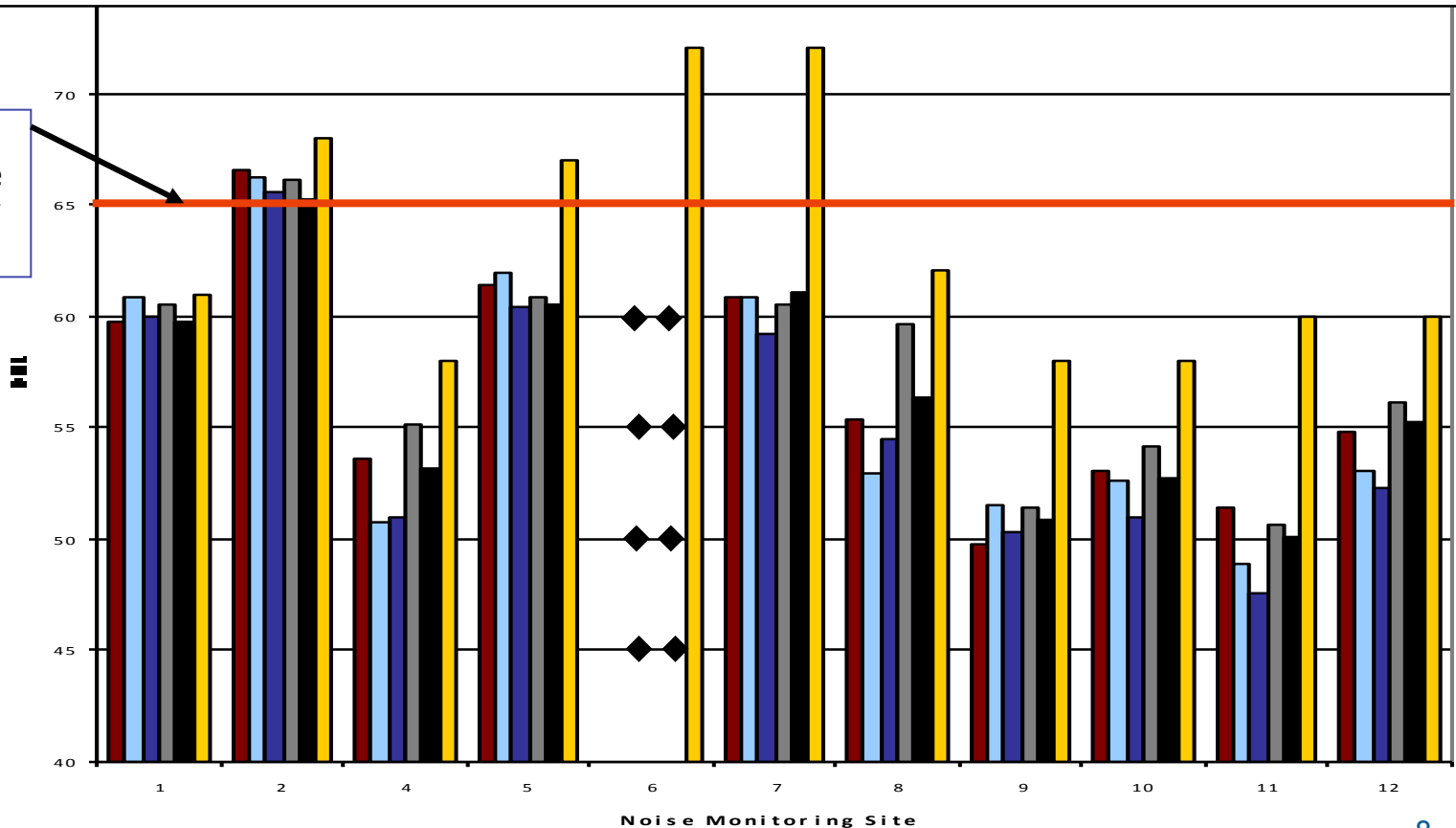


Noise Monitoring Site 3 was permanently dismantled due to relocation of Brookpark Road  
 Noise Monitoring Site 6 has been dismantled and is in storage pending relocation.

# DNL Comparison by Quarter



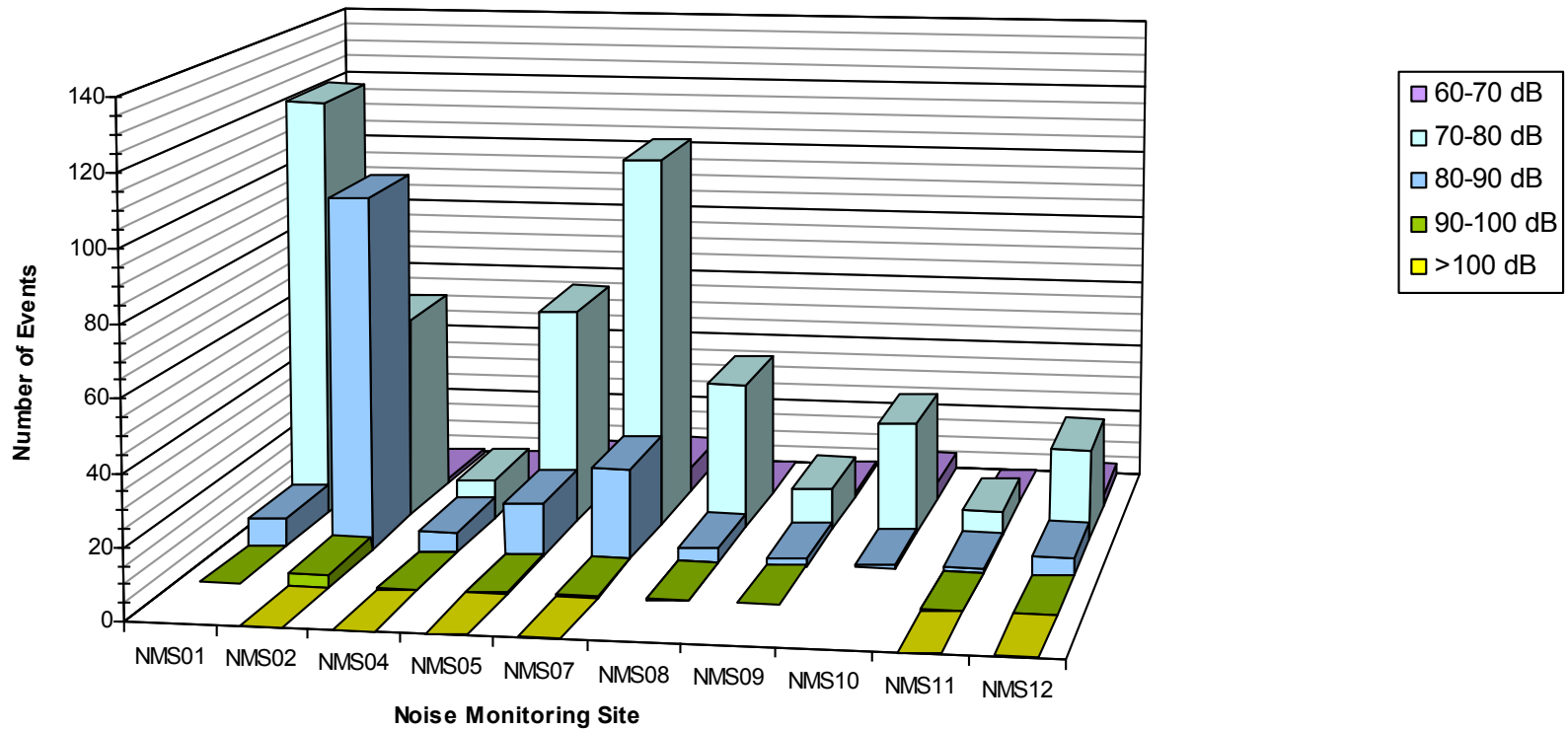
65 DNL federal noise compatibility threshold





# Distribution of Noise Events

Distribution of Lmax Averaged by Day, 3rd Quarter, 2009



## Top 3 Lmaxs at each NMS (1 of 2)

NMS	Lmax (dB)	Aircraft	Operation	Time and date	Sound Exposure Level (dB)	Duration (sec)
NMS01	93.1	Boeing 747 SP	Arrival on Rwy 24L	7/24/2009 18:49	98.3	45.0
NMS01	91.3	Possibly non-aircraft	Arrival? on Rwy 24L or R?	9/05/2009 4:18	97.0	34.0
NMS01	89.8	Military	Departure off Rwy 6L or R	9/05/2009 15:59	97.0	21.5
NMS02	107.6	Military	Departure off Rwy 6L or R	9/05/2009 15:59	111.8	16.5
NMS02	107.5	Military	Arrival on Rwy 24L or R	9/04/2009 14:00	110.1	27.0
NMS02	101.0	Military	Departure off Rwy 6R	9/05/2009 9:54	110.0	37.0
NMS04	102.1	Military	Departure off Rwy 6L or 6R	9/08/2009 15:06	108.5	37.0
NMS04	96.4	Military	Departure from Rwy 6L or R?	9/05/2009 12:23	102.6	21.0
NMS04	95.2	Military	Departure off Rwy 6R	9/13/2009 14:36	102.3	43.0
NMS05	102.3	Military	Take-off roll on Rwy 6L or R	9/08/2009 11:10	108.6	36.5
NMS05	101.2	Military	Take-off roll on Rwy 6R	9/07/2009 18:27	112.3	74.5
NMS05	99.3	Military	Take-off roll on Rwy 6R	9/03/2009 17:37	107.3	50.5
NMS07	101.6	Military (C-9)	Departure off Rwy 24R	8/06/2009 10:50	107.5	36.0
NMS07	100.3	Learjet 25	Departure off Rwy 24L or R	7/10/2009 9:27	106.3	34.0
NMS07	100.2	Learjet 25	Departure off Rwy 24R	8/16/2009 13:47	105.3	33.0

Sound Exposure Level is a measure that takes into account all noise over the entire duration of an event.

## Top 3 Lmaxs at each NMS (2 of 2)

NMS	Lmax (dB)	Aircraft	Operation	Time and date	Sound Exposure Level (dB)	Duration (sec)
NMS08	93.9	Boeing 707-300	Departure off Rwy 24L	7/03/2009 20:22	100.9	32.0
NMS08	92.9	Military	Arrival on Rwy 6L	9/11/2009 15:21	99.9	40.5
NMS08	86.0	Military	Arrival on Rwy 6L	9/04/2009 14:50	96.7	13.0
NMS09	95.2	Learjet 25	Departure off Rwy 24R	8/16/2009 13:47	102.4	33.5
NMS09	94.9	Military	Arrival on Rwy 6R	9/06/2009 13:50	99.8	13.0
NMS09	91.0	Military (C-9)	Departure off Rwy 24L or 24R	8/06/2009 10:51	98.3	27.5
NMS10	88.6	Learjet 25	Departure off Rwy 24R	7/17/2009 11:28	94.1	40.0
NMS10	85.9	Gulf 3	Departure off Rwy 24R	8/16/2009 18:58	93.2	28.5
NMS10	85.9	Learjet 25	Departure off 24R or L	8/19/2009 00:28	95.7	43.0
NMS11	103.8	Military	Departure off Rwy 6L or R	9/5/2009 15:59	108.2	65.5
NMS11	98.7	Military	Departure off Rwy 6L	9/04/2009 14:01	105.2	67.5
NMS11	94.7	Military	Departure off Rwy 6L or R	9/06/2009 15:54	99.5	27.5
NMS12	100.6	Military	Arrival on Rwy 10	9/03/2009 10:36	106.7	18.5
NMS12	92.6	Military	Departure off Rwy 6R	9/03/2009 17:38	99.2	40.5
NMS12	92.5	Military	Departure off Rwy 6L or R	9/04/2009 14:02	99.9	38.0

Sound Exposure Level is a measure that takes into account all noise over the entire duration of an event.

# Noise Hotline (216.898.5220)





City	Jul, 2009		Aug, 2009		Sep, 2009		Total Q3, 2009		Total Q3, 2008	
	Calls	Callers	Calls	Callers	Calls	Callers	Calls	Callers	Calls	Callers
Berea	1	1	0	0	0	0	<b>1</b>	<b>1</b>	1	1
Brook Park	0	0	4	3	0	0	<b>4</b>	<b>3</b>	4	4
Cleveland	30	9	37	19	57	18	<b>124</b>	<b>36</b>	131	29
Fairview Park	7	6	6	5	80	26	<b>93</b>	<b>34</b>	20	11
Lakewood	0	0	0	0	0	0	<b>0</b>	<b>0</b>	0	0
Middleburg Hts.	0	0	0	0	0	0	<b>0</b>	<b>0</b>	0	0
North Olmsted	0	0	1	1	0	0	<b>1</b>	<b>1</b>	0	0
Olmsted Falls	5	3	1	1	1	1	<b>7</b>	<b>5</b>	2	2
Olmsted Twp	1	1	6	3	8	3	<b>15</b>	<b>5</b>	10	8
Parma	0	0	15	14	0	0	<b>15</b>	<b>14</b>	3	3
Parma Heights	0	0	0	0	0	0	<b>0</b>	<b>0</b>	0	0
Rocky River	6	4	0	0	11	6	<b>17</b>	<b>9</b>	109	13
Westlake	0	0	0	0	2	2	<b>2</b>	<b>2</b>	0	0
Other	1	1	4	3	0	0	<b>5</b>	<b>4</b>	3	3
<b>Total</b>	<b>51</b>	<b>25</b>	<b>74</b>	<b>49</b>	<b>159</b>	<b>56</b>	<b>284</b>	<b>114</b>	<b>283</b>	<b>74</b>

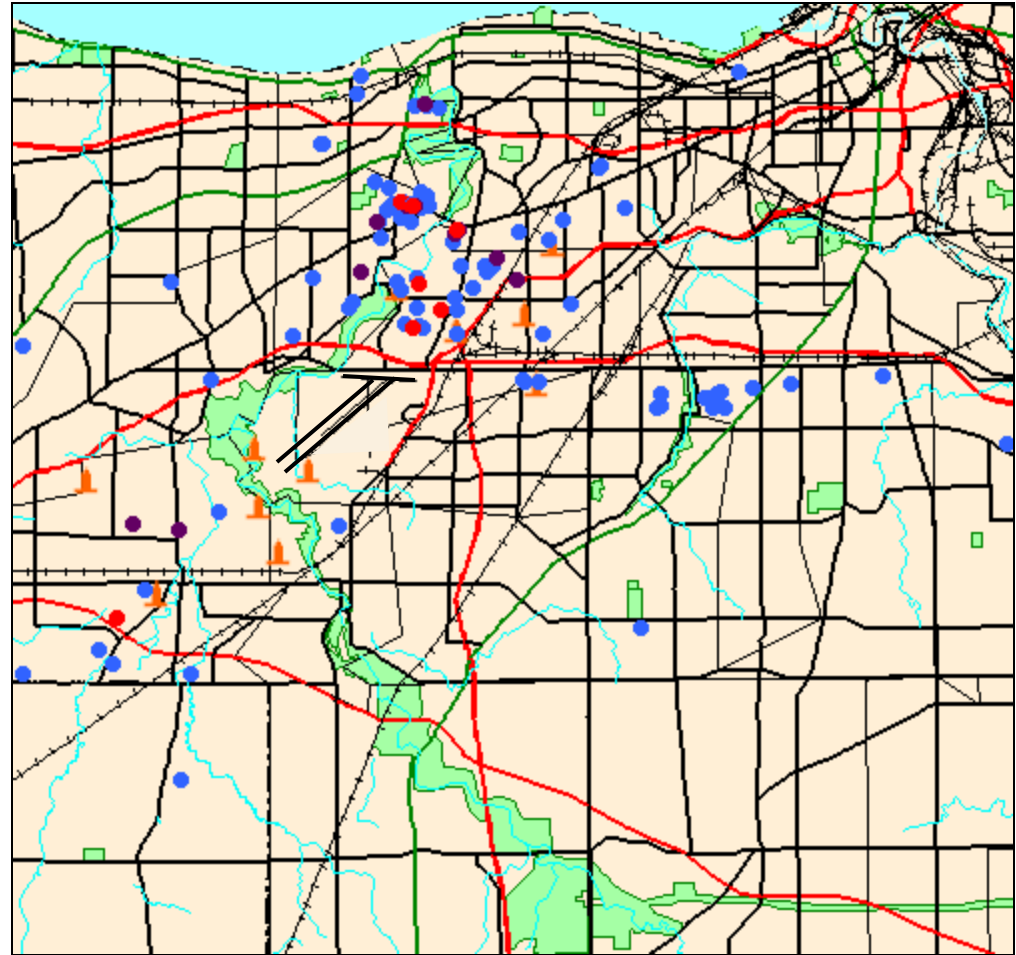
# 3<sup>rd</sup> Quarter, 2009 Complaint Map

Complaints increased along the Rwy 10 and 6R approach paths and in the Coffinberry neighborhood of Fairview Park.

## LEGEND

Complaints per household

-  1 complaint
-  2 to 5 complaints
-  6 or more
-  Noise Monitoring Station





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