



# ***Noise Compatibility***

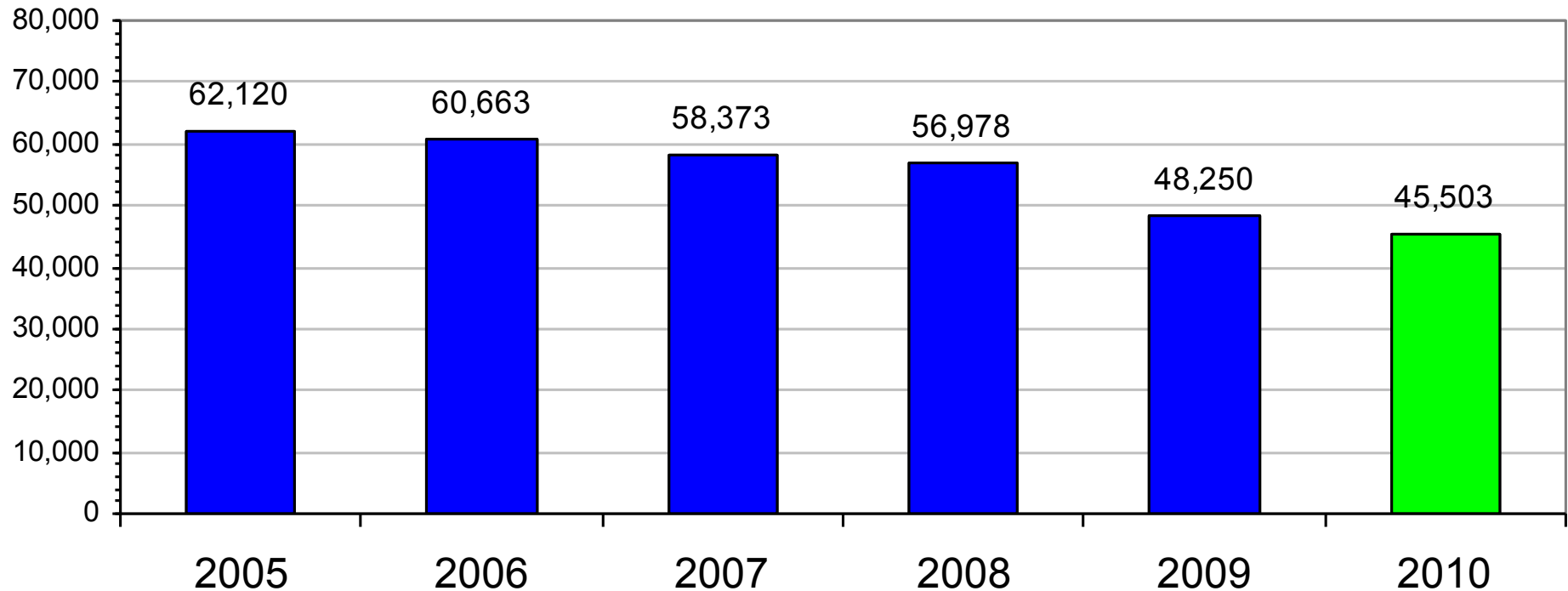
**1<sup>st</sup> Quarter 2010**

May 21, 2010

# Aircraft Operations



## Cleveland 1<sup>st</sup> Qtr. Operations 2005 - 2010



There were 45,503 landings and takeoffs in the 1<sup>st</sup> qtr. 2010; this is 5.7% below the 1<sup>st</sup> qtr. 2009.

Source: FAA Control Tower Traffic Count Reports

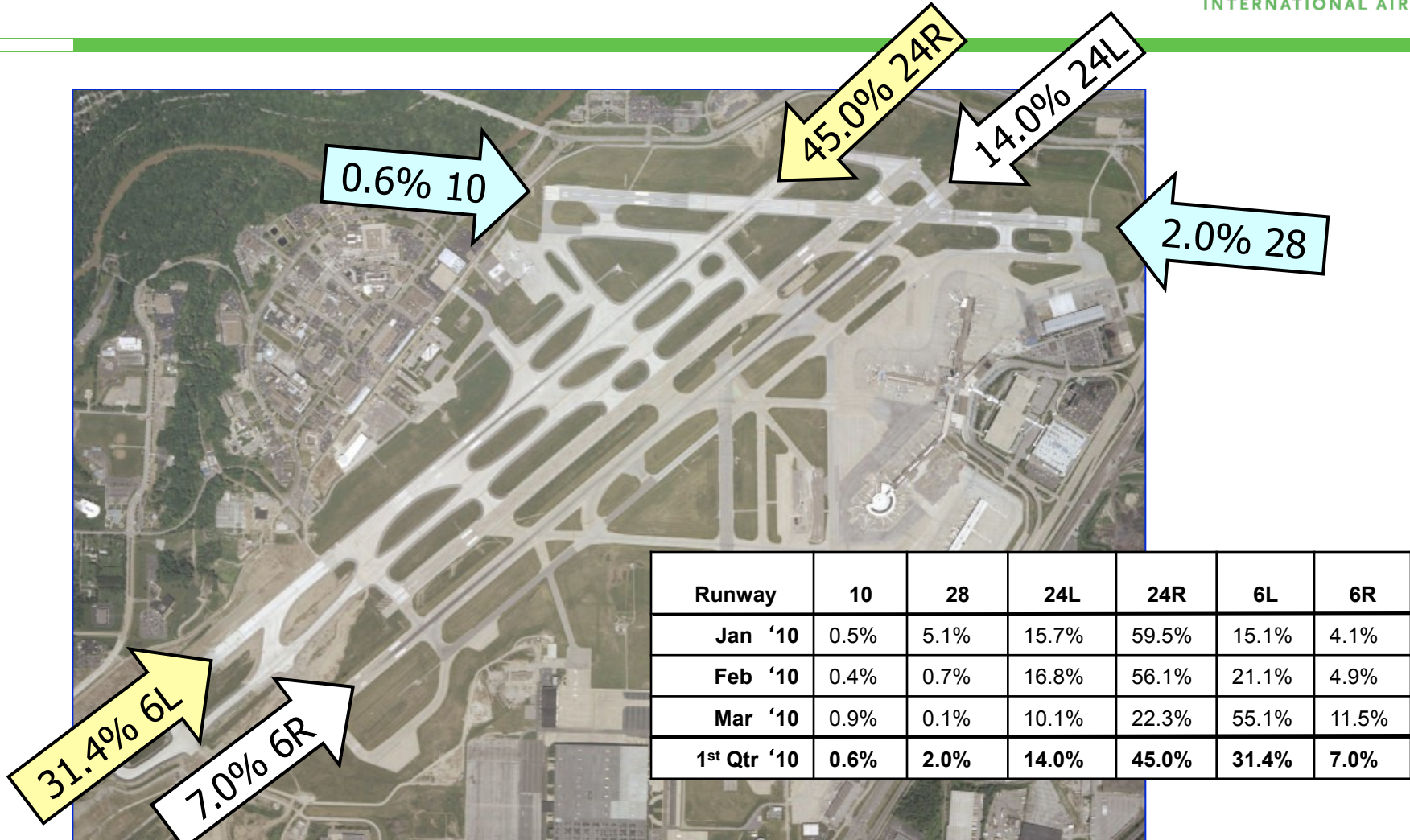
# Fleet Mix : 1<sup>st</sup> Qtr, 2010 vs. 1<sup>st</sup> Qtr, 2009



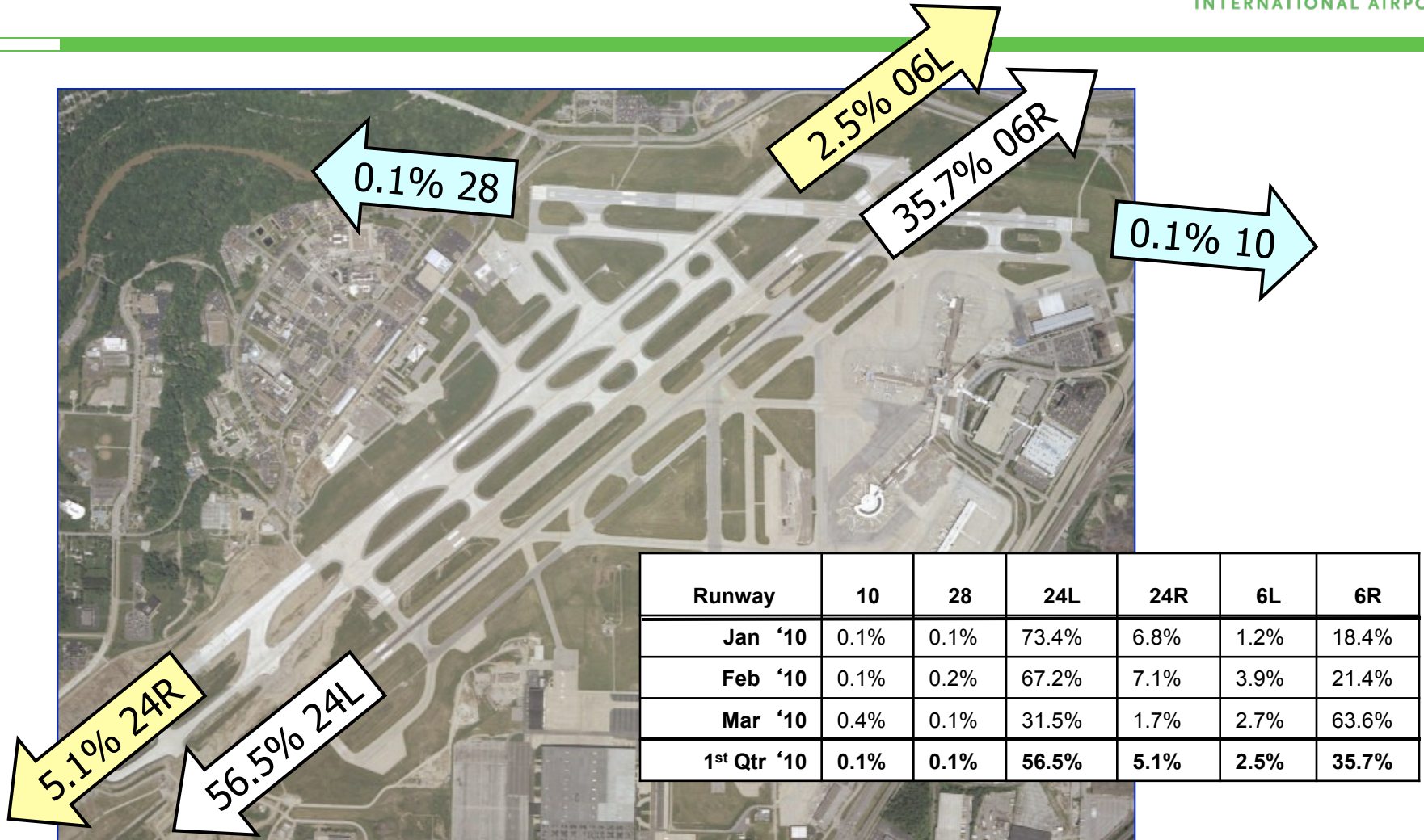
## Landings & Takeoffs

	1 <sup>st</sup> Qtr, 2010		1 <sup>st</sup> Qtr, 2009	
Commercial				
-Stage 2 with hush kit	46	0.10%	65	0.1%
-Heavy (incl all B757s)	680	1.50%	842	1.7%
-Other Stage 3	11,724	25.77%	13,737	28.5%
-Regional Jet	23,781	52.26%	23,154	48.0%
-Turboprop	6,190	13.60%	6,756	14.0%
Air Taxi	1,052	2.31%	1,987	4.1%
General Aviation	1,961	4.31%	1,668	3.5%
Military	69	0.15%	41	0.1%
<b>Total</b>	<b>45,503</b>	<b>100.00%</b>	<b>48,250</b>	<b>100.0%</b>

# Runway Use: 1<sup>st</sup> Qtr, 2010 Landings

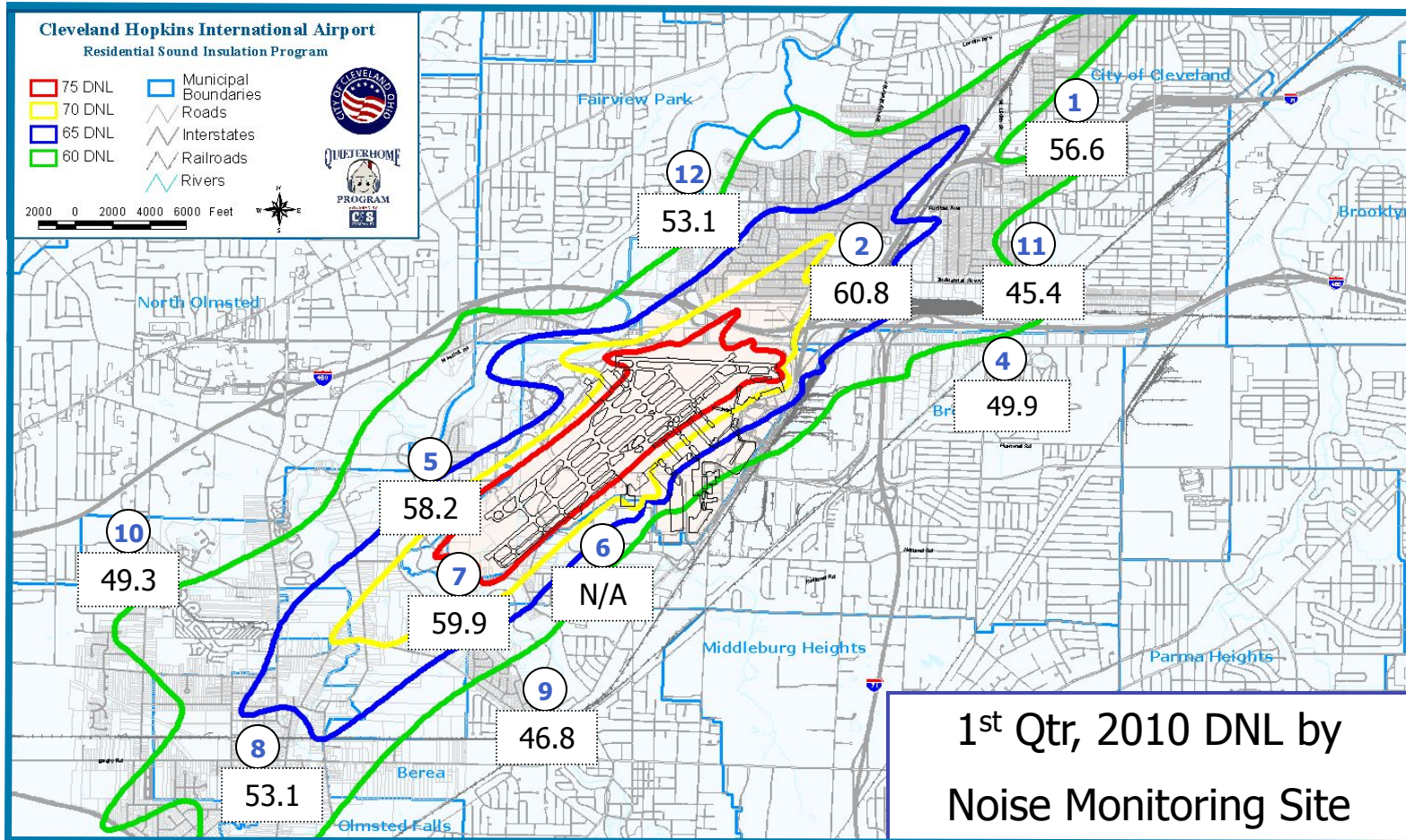


# Runway Use: 1<sup>st</sup> Qtr, 2010 Take-Offs

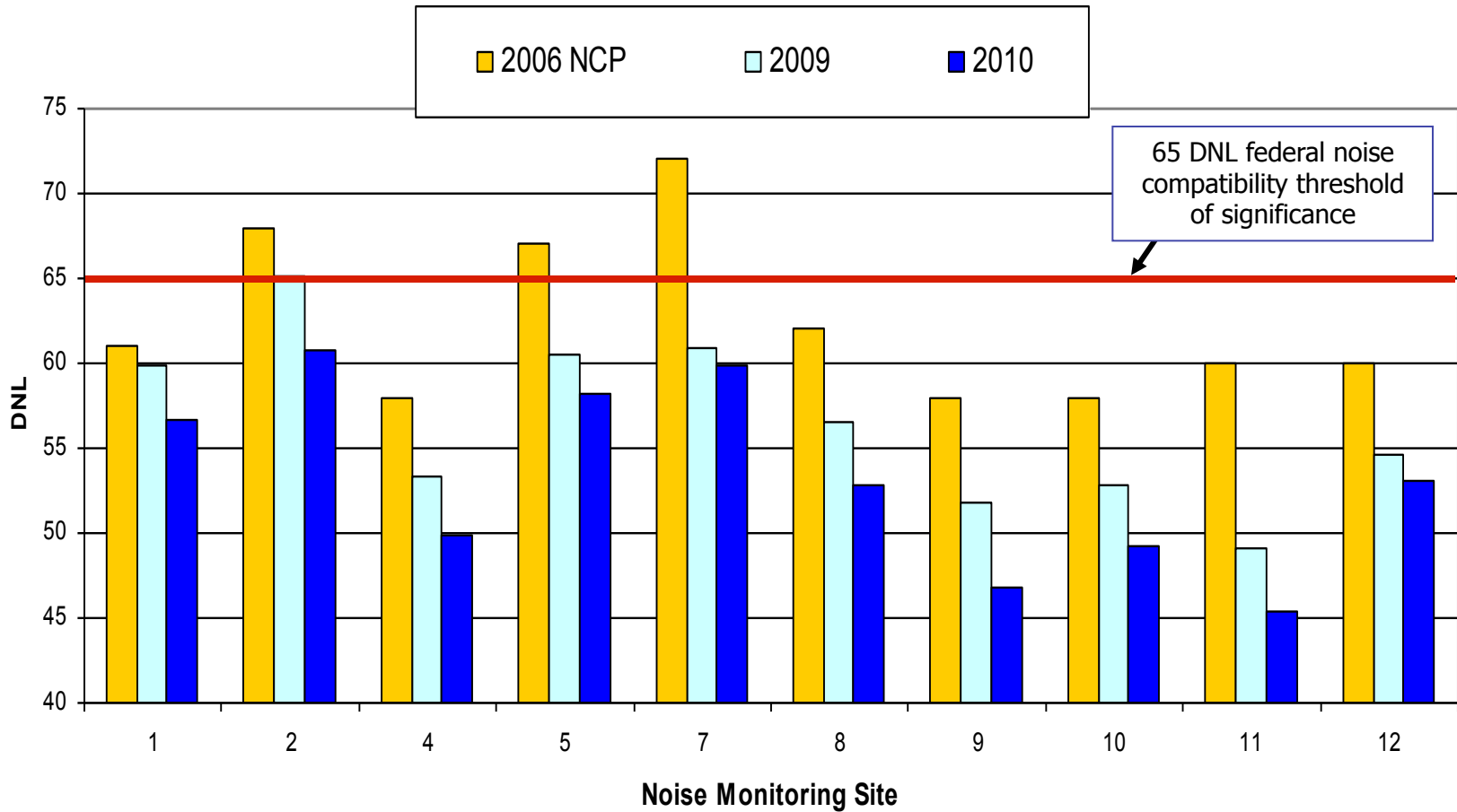




# Aircraft Noise

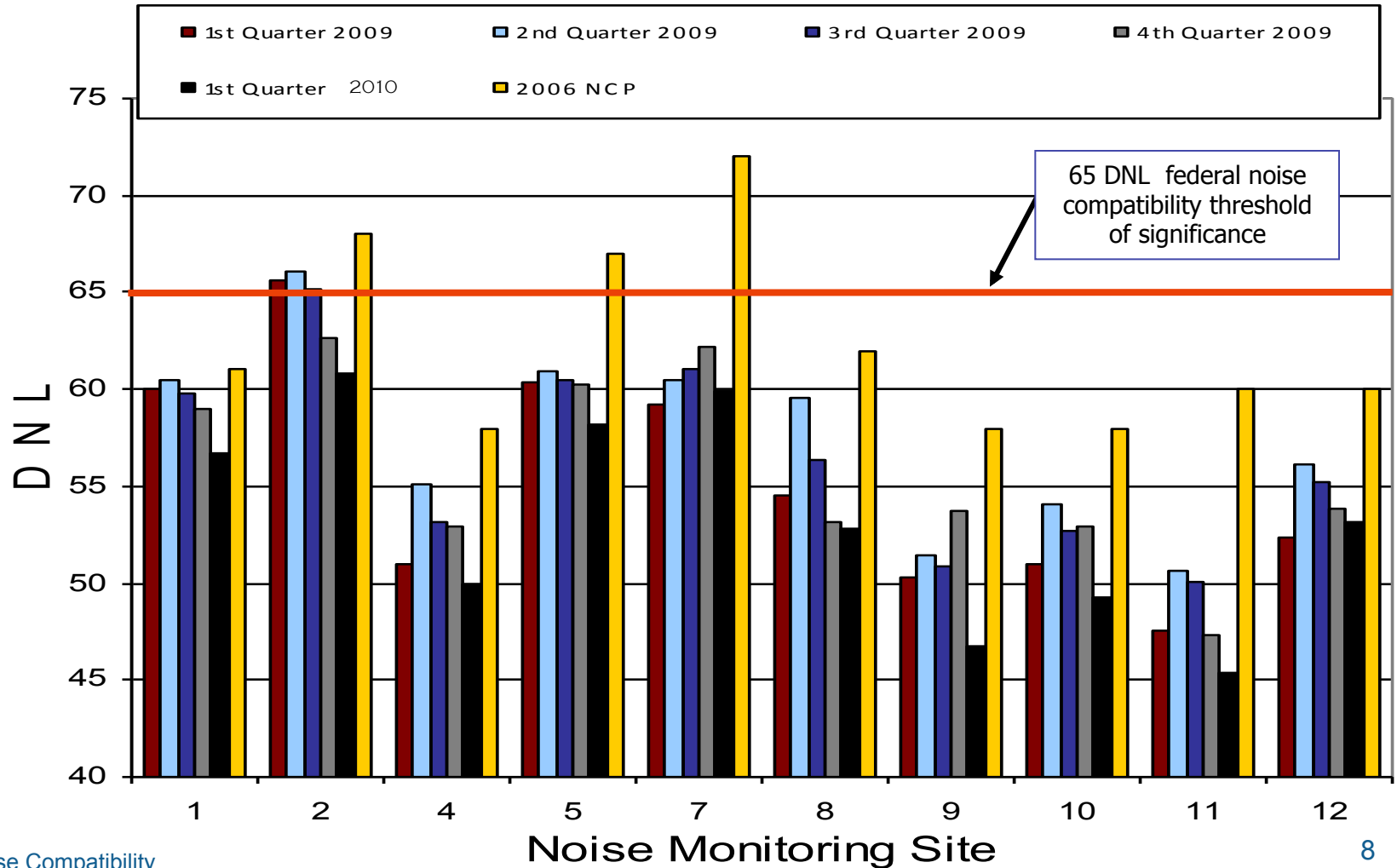


# DNL: 1<sup>st</sup> Qtr, 2010 vs. 1<sup>st</sup> Qtr, 2009



NMS06 was disconnected from power, dismantled and placed in storage in November 2008 due to runway expansion.

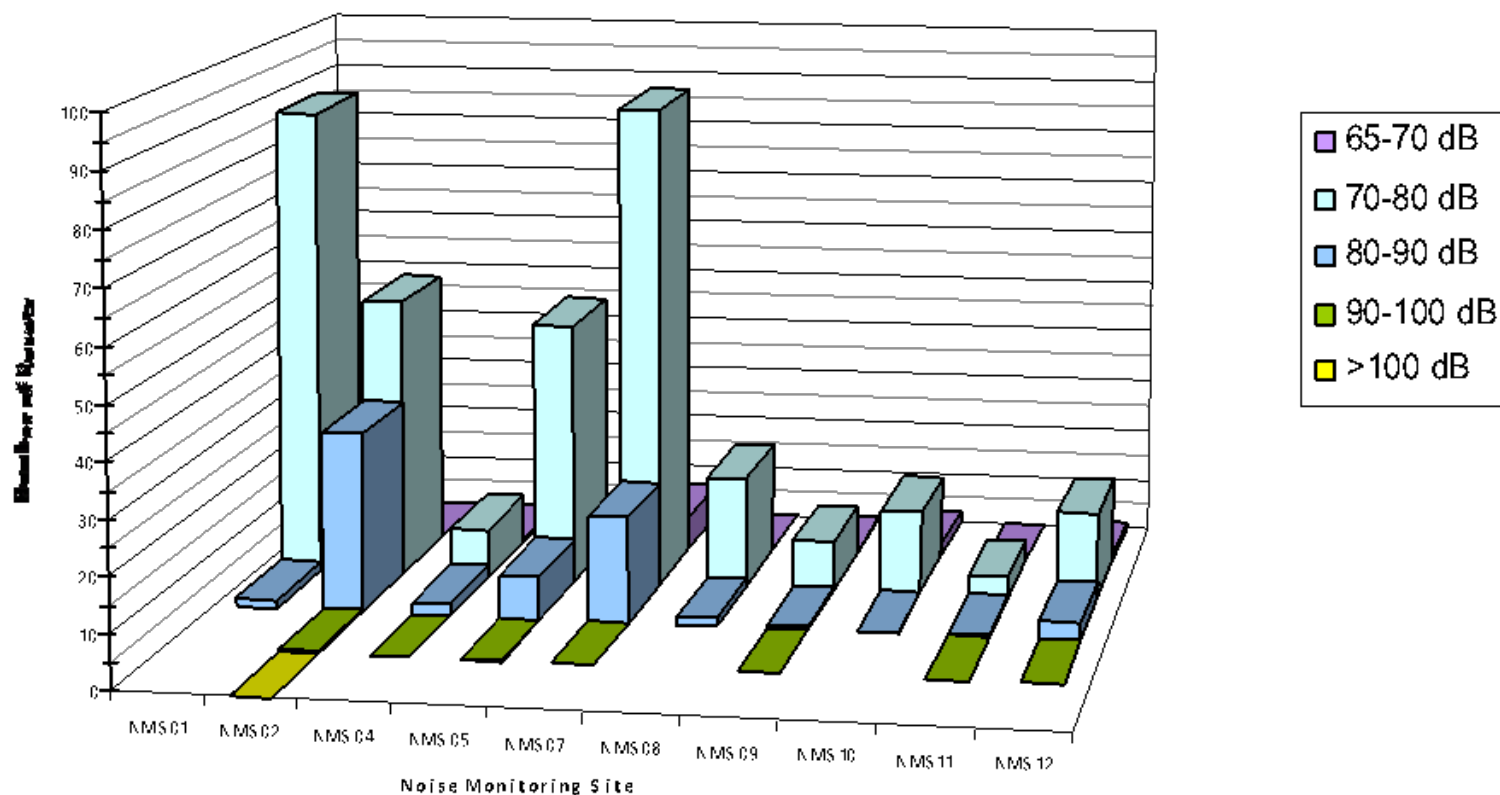
# Five Qtr DNL Comparison





# Distribution of Noise Events

Distribution of Lmax Averaged by Day, 1st Qtr, 2010



# Top 3 Lmaxs at each NMS, 1<sup>st</sup> Qtr, (1 of 2)



NMS	Lmax (dB)	Aircraft	Operation	Time and date	Sound Exposure Level (dB)	Duration (sec)
NMS01	87.1	Lear 25	Arrival on Rwy 24R	3/18/2010 18:54	93.7	25.0
NMS01	87.1	Lear 25	Arrival on Rwy 24R	3/23/2010 15:21	94.3	29.5
NMS01	86.7	Lear 25	Arrival on Rwy 24R	1/26/2010 14:48	93.4	33.5
NMS02	100.2	Lear 25	Departure off Rwy 6R	3/30/2010 12:55	106.3	49.5
NMS02	93.2	MD-11	Arrival on Rwy 24L	2/24/2010 5:53	97.8	18.5
NMS02	91.8	B737-300	Arrival on Rwy 24L	3/31/2010 22:08	94.7	14.0
NMS04	93.6	Lear 25	Arrival on Rwy 28	1/19/2010 18:34	100.2	18.0
NMS04	87.2	B737-400	Arrival on Rwy 28	1/19/2010 19:06	92.5	18.0
NMS04	87.1	B737-300	Arrival on Rwy 28	1/4/2010 15:06	93.9	38.5
NMS05	91.2	Lear 25	Departure off Rwy 6R	1/21/2010 17:36	99.9	67.0
NMS05	91.2	Lear 25	Departure off Rwy 24L	2/16/2010 14:56	99.4	54.5
NMS05	91.1	Lear 25	Departure off Rwy 24L	1/27/2010 15:11	96.9	36.0
NMS07	97.0	Lear 25	Departure off Rwy 24L	1/4/2010 11:56	103.5	42.0
NMS07	96.7	Lear 25	Departure off Rwy 24L	1/26/2010 17:20	104.9	44.0
NMS07	95.5	B737-200	Departure off Rwy 24L	3/6/2010 12:21	101.8	42.0

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, 1<sup>st</sup> Qtr, (2 of 2)



NMS	Lmax (dB)	Aircraft	Operation	Time and date	Sound Exposure Level (dB)	Duration (sec)
NMS08	88.1	Lear 25	Departure off Rwy 24L	1/4/2010 11:56	95.0	47.0
NMS08	86.5	Helicopter	Arrival at Hopkins	3/29/2010 17:21	95.3	46.5
NMS08	86.3	Lear 25	Departure off Rwy 24R	3/18/2010 10:14	95.5	43.0
NMS09	90.3	Lear 25	Departure off Rwy 24L	3/18/2010 21:42	98.5	42.0
NMS09	89.9	B737-200	Departure off Rwy 24L	1/17/2010 8:38	98.6	35.5
NMS09	88.6	B737-200	Departure off Rwy 24L	1/16/2010 10:01	97.2	37.5
NMS10	83.6	DC-9 Series 30	Departure off Rwy 24R	2/11/2010 1:11	92.1	29.0
NMS10	83.2	B737-900	Departure off Rwy 24L	1/7/2010 17:44	90.9	27.0
NMS10	82.4	MD-11	Departure off Rwy 24R	1/25/2010 22:32	90.4	25.5
NMS11	91.3	Lear 25	Departure off Rwy 10	3/25/2010 13:01	99.9	40.5
NMS11	90.0	MD-82	Departure off Rwy 6L	2/25/2010 12:20	95.8	23.5
NMS11	86.4	Lear 25	Departure off Rwy 6R	3/30/2010 12:55	95.3	40.0
NMS12	91.7	MD-11	Departure off Rwy 6R	3/11/2010 22:32	97.6	25.5
NMS12	89.0	Helicopter	Departure from Hopkins	3/12/2010 17:17	94.5	25.5
NMS12	87.8	MD-11	Departure off Rwy 6L	3/30/2010 22:39	94.4	25.5

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

# Noise Hotline (216.898.5220)



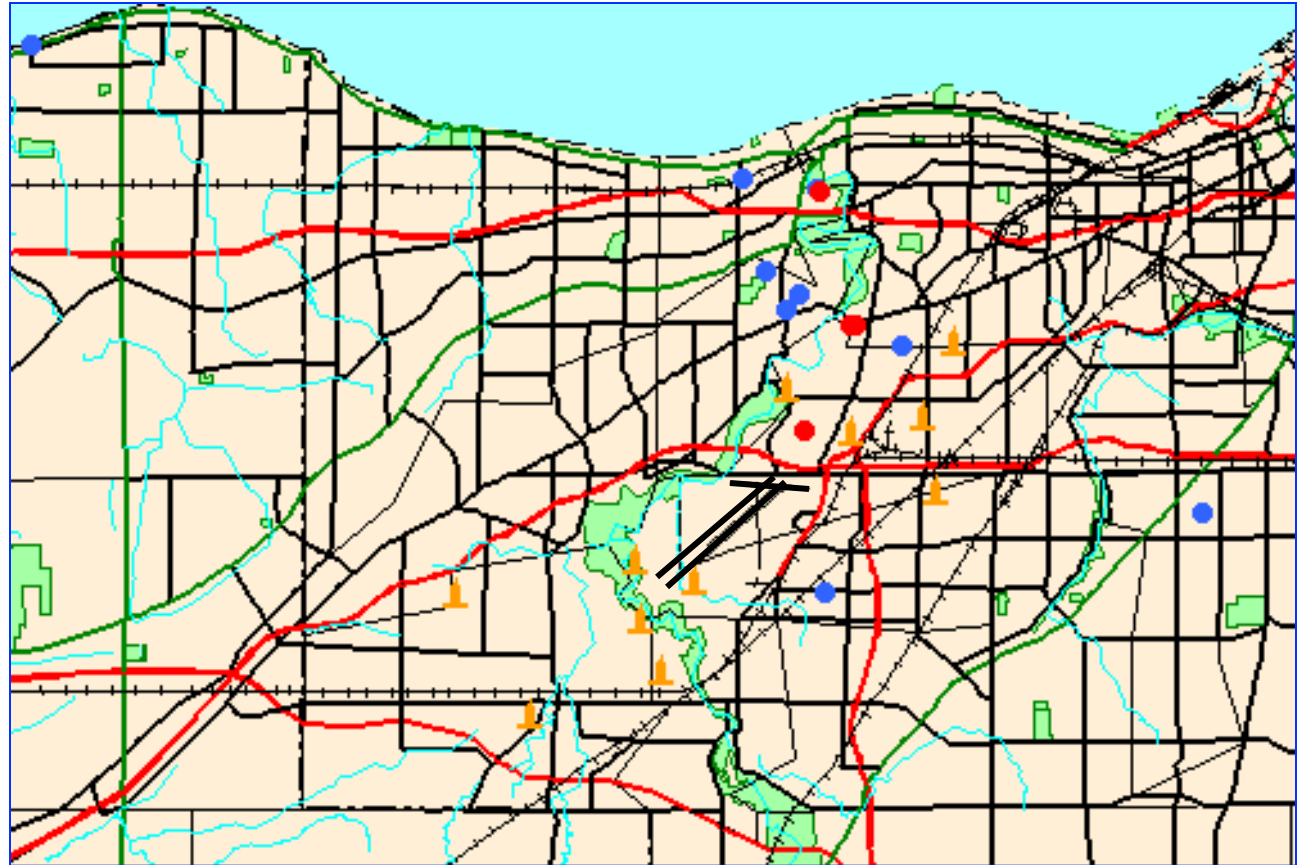
	Jan	Feb	Mar	1st Qtr	%	Callers	%
Berea	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
Brook Park	0	0	1	<b>1</b>	1.89%	<b>1</b>	8.33%
Cleveland	10	4	20	<b>34</b>	64.15%	<b>4</b>	33.33%
Fairview Park	0	0	2	<b>2</b>	3.77%	<b>2</b>	16.67%
Lakewood	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
Middleburg Hts.	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
North Olmsted	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
Olmsted Falls	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
Olmsted Twp	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
Parma	1	0	0	<b>1</b>	1.89%	<b>1</b>	8.33%
Parma Heights	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
Rocky River	2	1	11	<b>14</b>	26.42%	<b>3</b>	25.00%
Westlake	0	0	0	<b>0</b>	0.00%	<b>0</b>	0.00%
Other	1	0	0	<b>1</b>	1.89%	<b>1</b>	8.33%
<b>Total (2010)</b>	<b>14</b>	<b>5</b>	<b>34</b>	<b>53</b>	<b>100.00%</b>	<b>12</b>	<b>100.00%</b>
<b>Total (2009)</b>	<b>6</b>	<b>10</b>	<b>36</b>	<b>52</b>	<b>100.00%</b>	<b>17</b>	<b>100.00%</b>

# Complaint Location Map: 1<sup>st</sup> Qtr, 2010

## LEGEND

Complaints per household

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





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