



# ***Noise Compatibility Report***

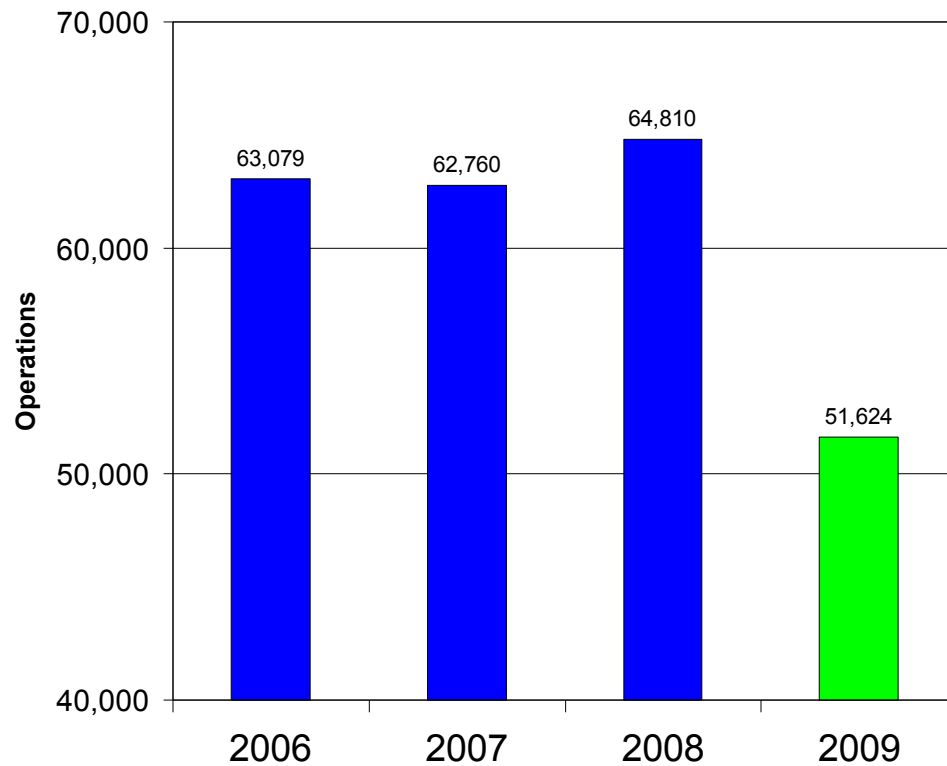
**2<sup>nd</sup> Quarter 2009**

**September 4, 2009**

# Aircraft Operations

Second quarter 2009 aircraft operations declined **20.3%** versus the second quarter 2008.

## 2nd Quarter Operations



# Fleet Mix

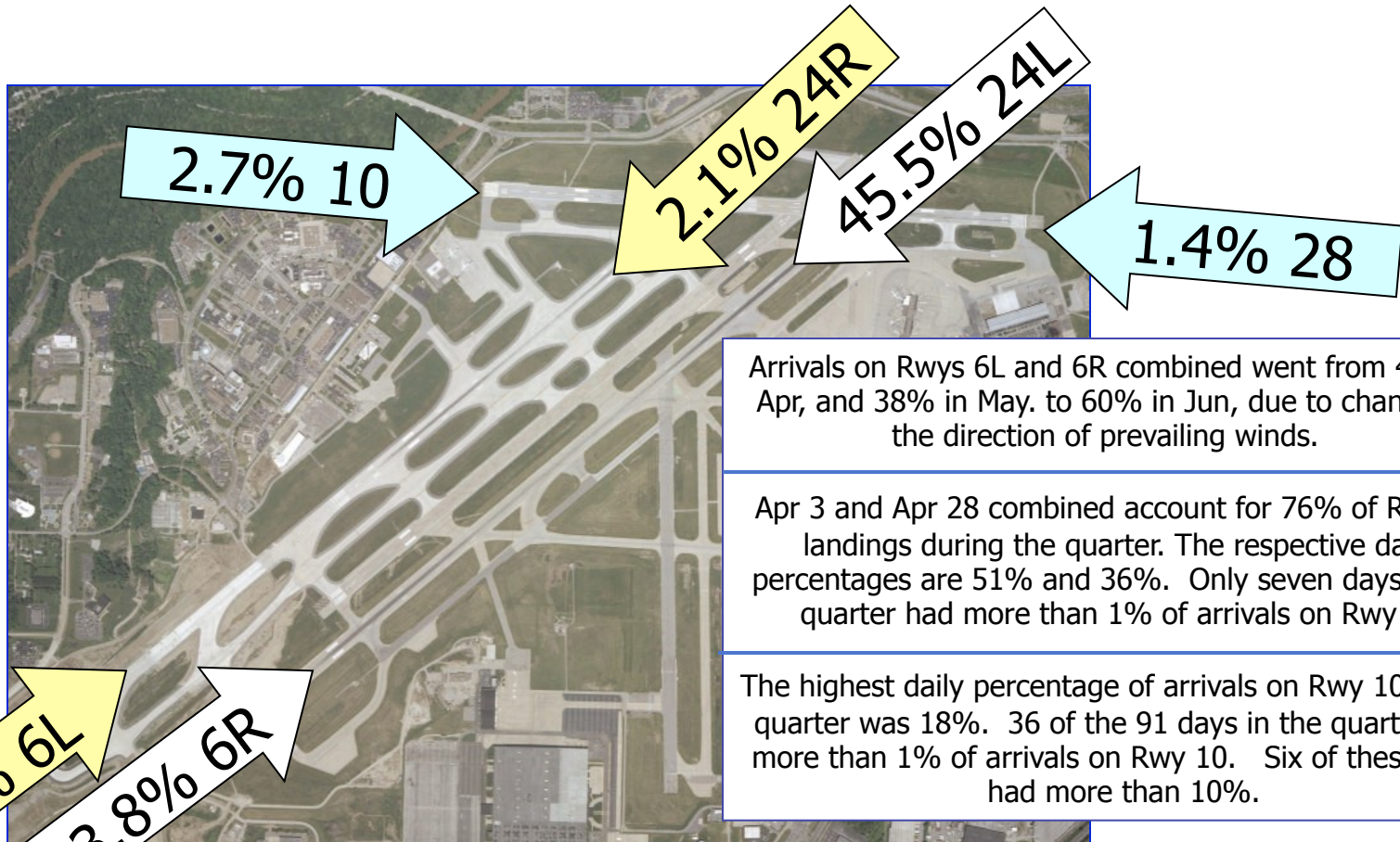


Second Quarter 2009	Landings & Takeoffs	Distribution
Air Carrier		
- Stage 2 with hush kit	102	0.2%
- Heavy (MD11, B757, etc.)	1,090	2.1%
- Other Stage 3	14,457	28.0%
Regional Jet	25,276	49.0%
Turboprop	7,892	15.3%
Air Taxi	680	1.3%
General Aviation	2,062	4.0%
Military	65	0.1%
	<b>51,624</b>	<b>100.0%</b>

MD11 operations increased to 124 during the 2<sup>nd</sup> Qtr, as compared to 62 in the 1<sup>st</sup> Qtr of 2009. There were only two during the entire 2008 calendar year.

During the 2<sup>nd</sup> quarter of 2009, the number of Stage 2 (with hush kit) operations was 102, as compared to 560 in the 1<sup>st</sup> quarter of 2008.

# Runway Use Landings



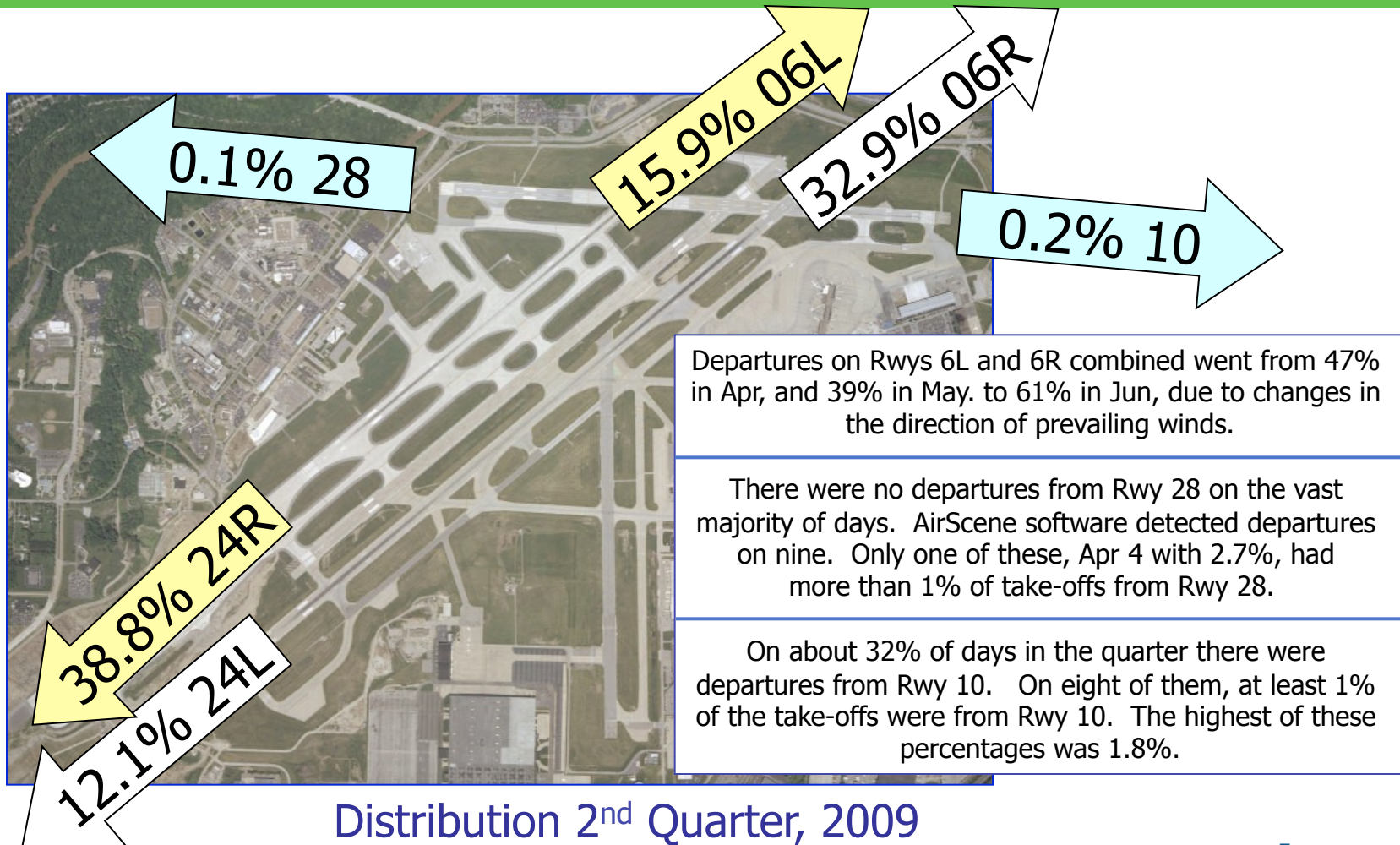
Arrivals on Rwy 6L and 6R combined went from 46% in Apr, and 38% in May, to 60% in Jun, due to changes in the direction of prevailing winds.

Apr 3 and Apr 28 combined account for 76% of Rwy 28 landings during the quarter. The respective daily percentages are 51% and 36%. Only seven days in the quarter had more than 1% of arrivals on Rwy 28.

The highest daily percentage of arrivals on Rwy 10 for the quarter was 18%. 36 of the 91 days in the quarter had more than 1% of arrivals on Rwy 10. Six of these days had more than 10%.

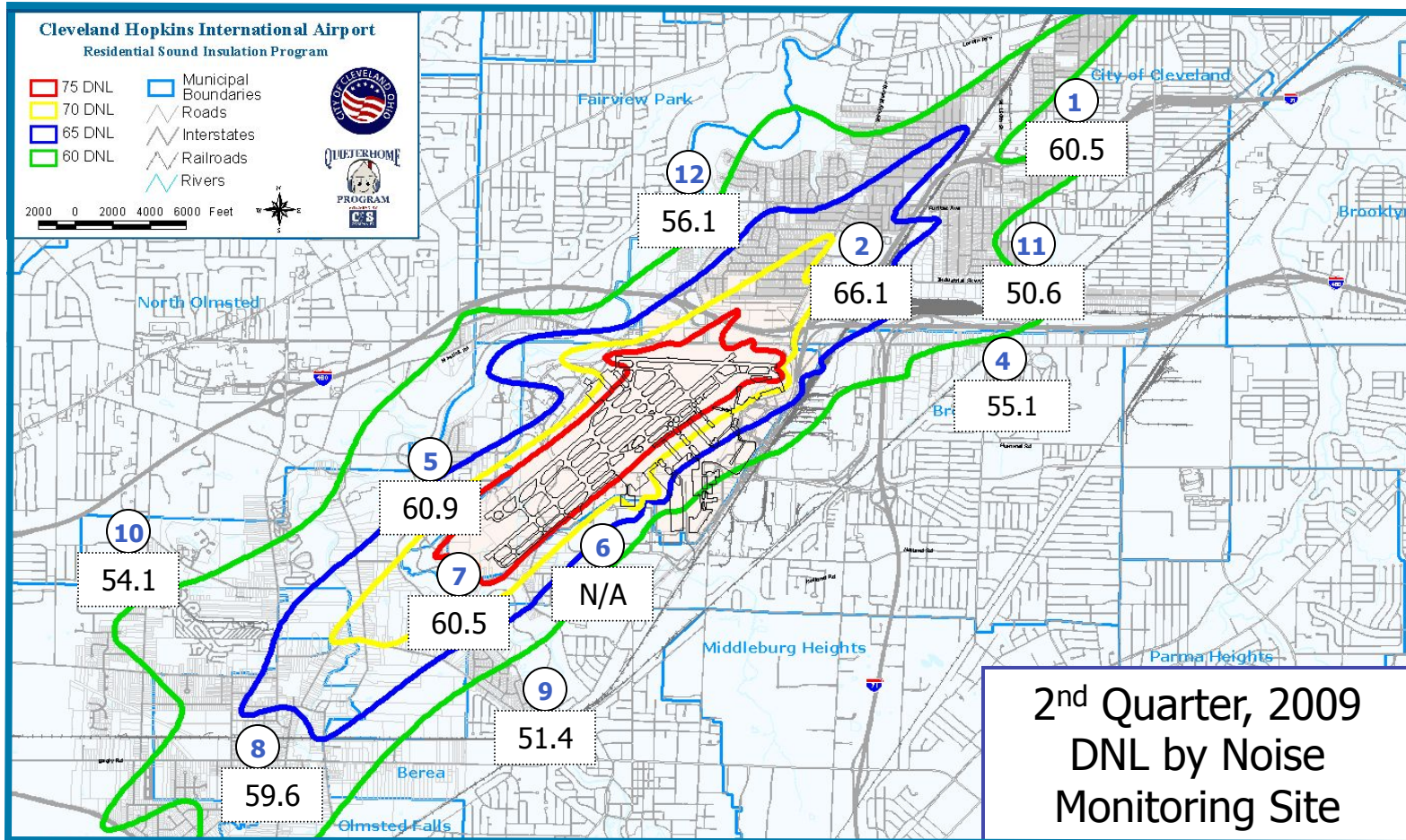
Distribution 2<sup>nd</sup> Quarter, 2009

# Runway Use Take-Offs



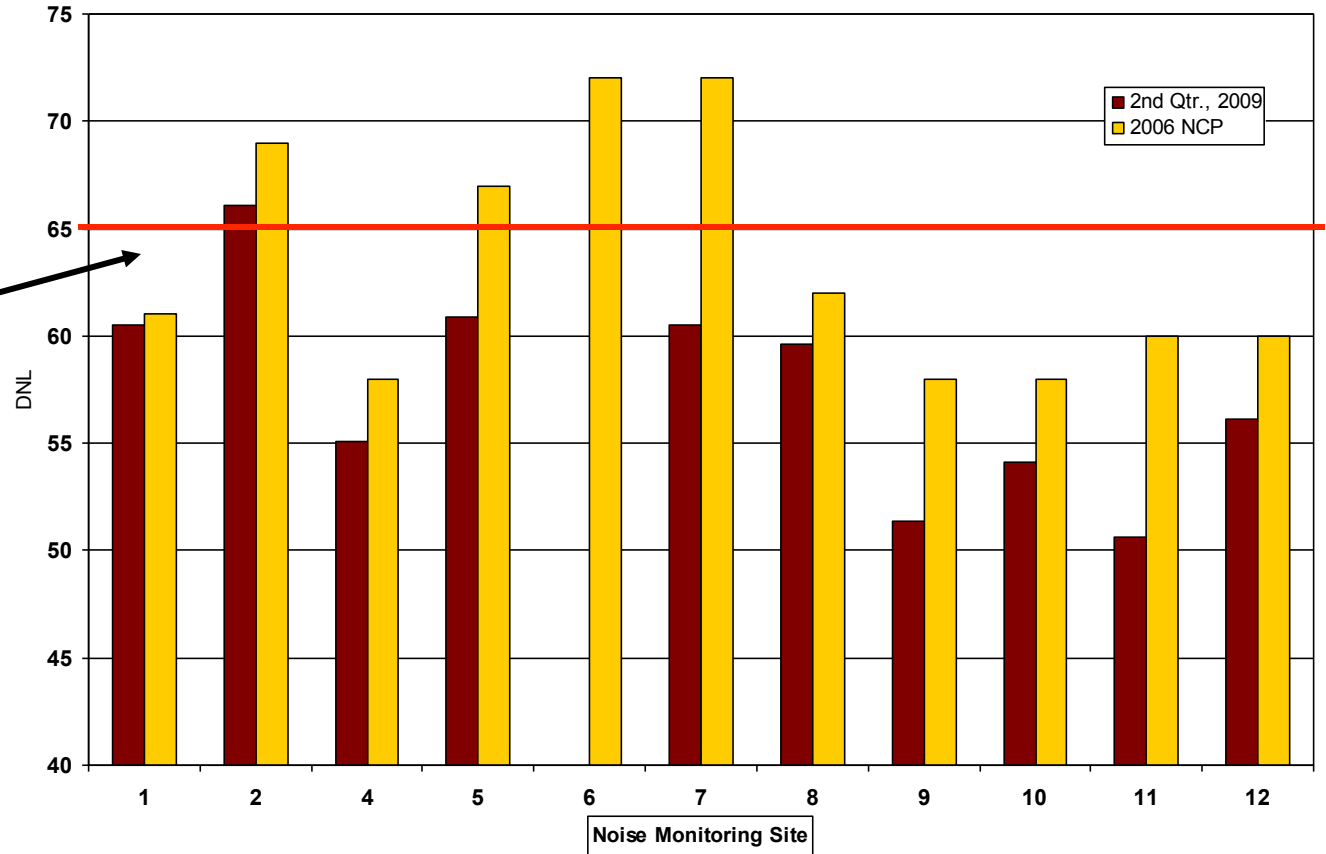


# Aircraft Noise

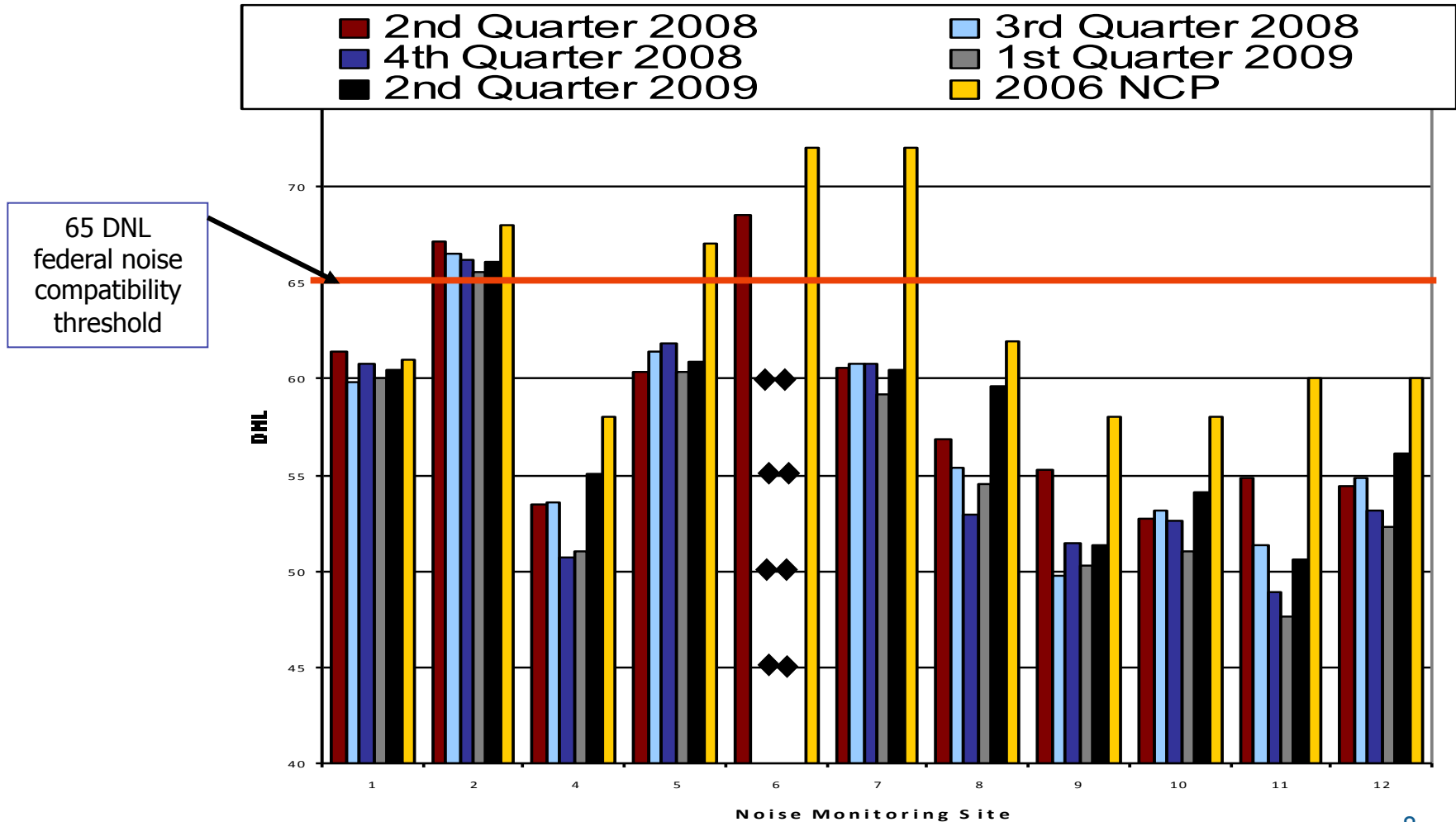


# DNL 2<sup>nd</sup> Quarter 2009

65 Ldn FAA noise compatibility threshold



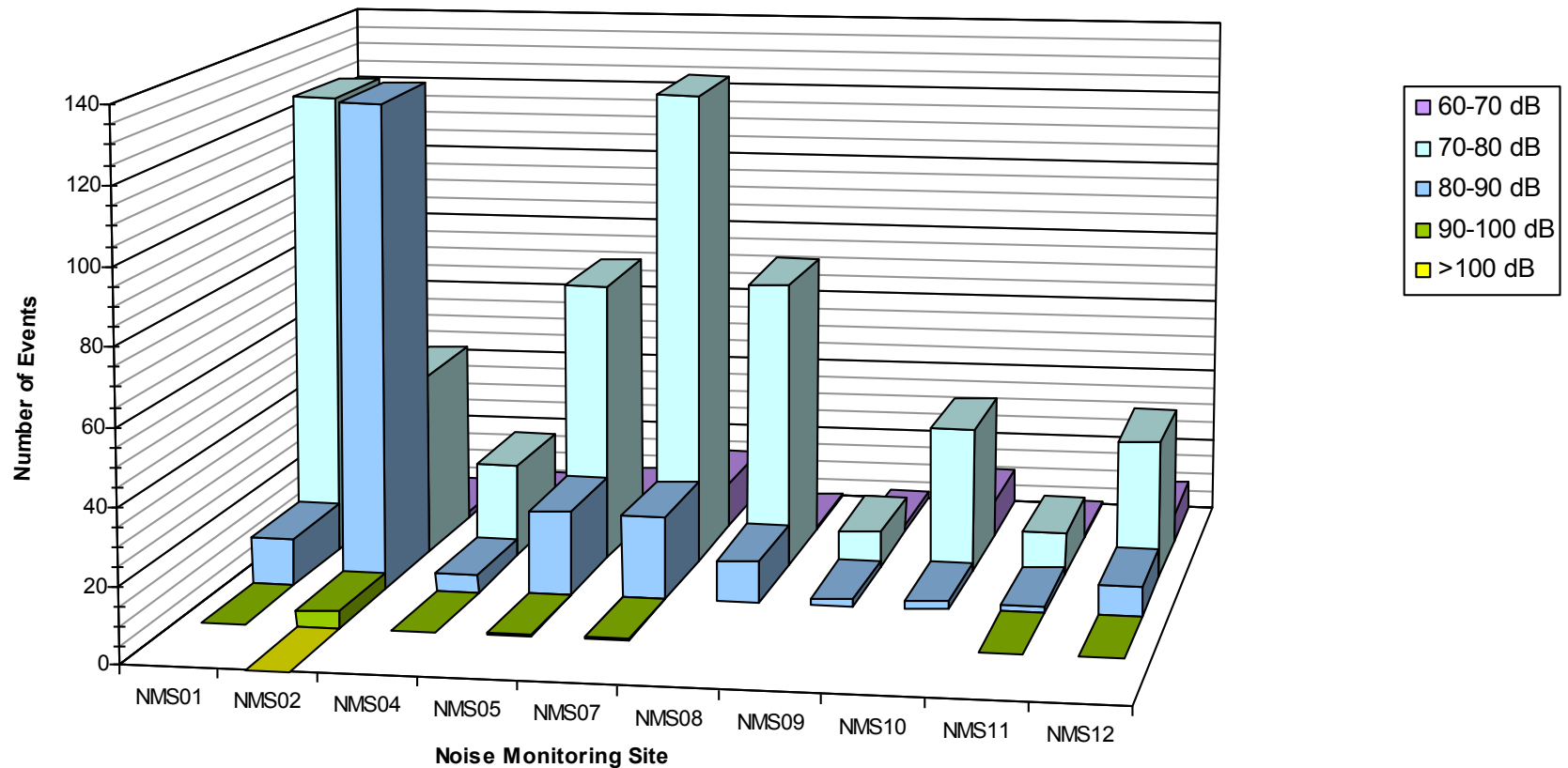
# DNL Comparison by Quarter





# Distribution of Noise Events

Distribution of Lmax Averaged by Day, 2nd 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	90.3	Gulfstream III	Arrival on Rwy 24L	4/21/2009 0:34	96.6	39.5
NMS01	88.4	MD11	Arrival on Rwy 24L	5/16/2009 6:10	96.7	31.0
NMS01	88.0	MD11	Arrival on Rwy 24L	4/20/2009 16:15	94.0	34.5
NMS02	100.6	MD11	Arrival on Rwy 24L	5/14/2009 5:57	103.0	23.0
NMS02	99.1	MD11	Arrival on Rwy 24L	5/16/2009 6:11	102.4	24.5
NMS02	97.6	DC9-50	Arrival on Rwy 24L	4/24/2009 16:16	100.7	15.5
NMS04	96.1	Learjet 25	Arrival on Rwy 28	6/15/2009 13:36	103.5	37.0
NMS04	90.9	B737-300	Arrival on Rwy 28	4/3/2009 14:55	96.5	27.5
NMS04	90.3	Learjet 25	Departure off Rwy 10	6/22/2009 11:03	99.8	34.5
NMS05	94.8	Gulfstream III	Departure off Rwy 24R	4/21/2009 18:20	99.1	27.5
NMS05	93.9	DC9-50	Departure off Rwy 24L or 24R	4/6/2009 17:24	103.1	47.5
NMS05	93.8	DC9-50	Departure off Rwy 24R	5/1/2009 17:10	101.7	27.5
NMS07	98.0	Learjet 25	Departure off Rwy 24R	6/29/2009 10:31	104.3	29.0
NMS07	95.6	B737-200	Departure off Rwy 24L	6/19/2009 8:57	102.7	38.0
NMS07	92.7	B737-200	Departure off Rwy 24L	5/9/2009 9:56	100.2	34.5

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	86.1	unknown	unknown - could be non-aircraft	4/7/2009 3:20	92.6	31.5
NMS08	86.1	MD11	Arrival on Rwy 6R	6/25/2009 5:43	92.4	20.0
NMS08	86.0	MD11	Arrival on Rwy 6R	6/17/2009 5:49	94.0	24.0
NMS09	88.0	unknown	Possible departure off Rwy 24R	4/24/2009 12:50	92.8	18.0
NMS09	86.5	B757-300	Departure off Rwy 24R	6/19/2009 8:59	92.2	34.0
NMS09	86.0	B737-700	Departure off Rwy 24L or 24R	5/2/2009 8:12	93.5	24.0
NMS10	89.6	Gulfstream III	Departure off Rwy 24R	4/21/2009 18:21	97.7	42.0
NMS10	87.2	DC9-50	Departure off 24L	4/26/2009 17:22	96.6	41.5
NMS10	83.9	DC9-50	Departure off 24R	4/09/2009 17:12	91.2	22.0
NMS11	90.8	unknown aircraft	Departure off Rwy 6L or 6R	4/2/2009 17:54	99.2	44.5
NMS11	90.1	B737-200	Departure off Rwy 6R	5/24/2009 13:09	97.1	26.5
NMS11	88.7	B707-300	Departure off UNK	5/17/2009 17:39	96.6	36.0
NMS12	93.7	DC9-50	Departure off Rwy 6L	4/13/2009 17:19	99.9	27.0
NMS12	89.0	DC9-50	Departure off Rwy 6R	4/10/2009 17:47	97.2	34.0
NMS12	87.6	B737-300	Departure off Rwy 6R	4/29/2009 16:57	92.2	18.0

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	Apr, 2009		May, 2009		Jun, 2009		Total Q2, 2009		Total Q2, 2008	
	Calls	Callers	Calls	Callers	Calls	Callers	Calls	Callers	Calls	Callers
Berea	0	0	0	0	0	0	<b>0</b>	<b>0</b>	1	1
Brook Park	0	0	0	0	0	0	<b>0</b>	<b>0</b>	4	4
Cleveland	25	6	15	3	67	16	<b>107</b>	<b>17</b>	171	24
Fairview Park	1	1	1	1	10	10	<b>12</b>	<b>12</b>	12	8
Lakewood	0	0	0	0	0	0	<b>0</b>	<b>0</b>	1	1
Middleburg Hts.	0	0	0	0	0	0	<b>0</b>	<b>0</b>	0	0
North Olmsted	0	0	2	1	0	0	<b>2</b>	<b>1</b>	0	0
Olmsted Falls	0	0	2	1	2	2	<b>4</b>	<b>3</b>	1	1
Olmsted Twp	0	0	1	1	6	2	<b>7</b>	<b>2</b>	3	3
Parma	0	0	1	1	1	1	<b>2</b>	<b>2</b>	1	1
Parma Heights	0	0	0	0	0	0	<b>0</b>	<b>0</b>	0	0
Rocky River	5	2	9	3	19	5	<b>33</b>	<b>5</b>	35	6
Westlake	0	0	1	1	0	0	<b>1</b>	<b>1</b>	0	0
Other	0	0	0	0	1	1	<b>1</b>	<b>1</b>	1	1
<b>Total</b>	<b>31</b>	<b>9</b>	<b>32</b>	<b>12</b>	<b>106</b>	<b>37</b>	<b>169</b>	<b>44</b>	<b>230</b>	<b>50</b>

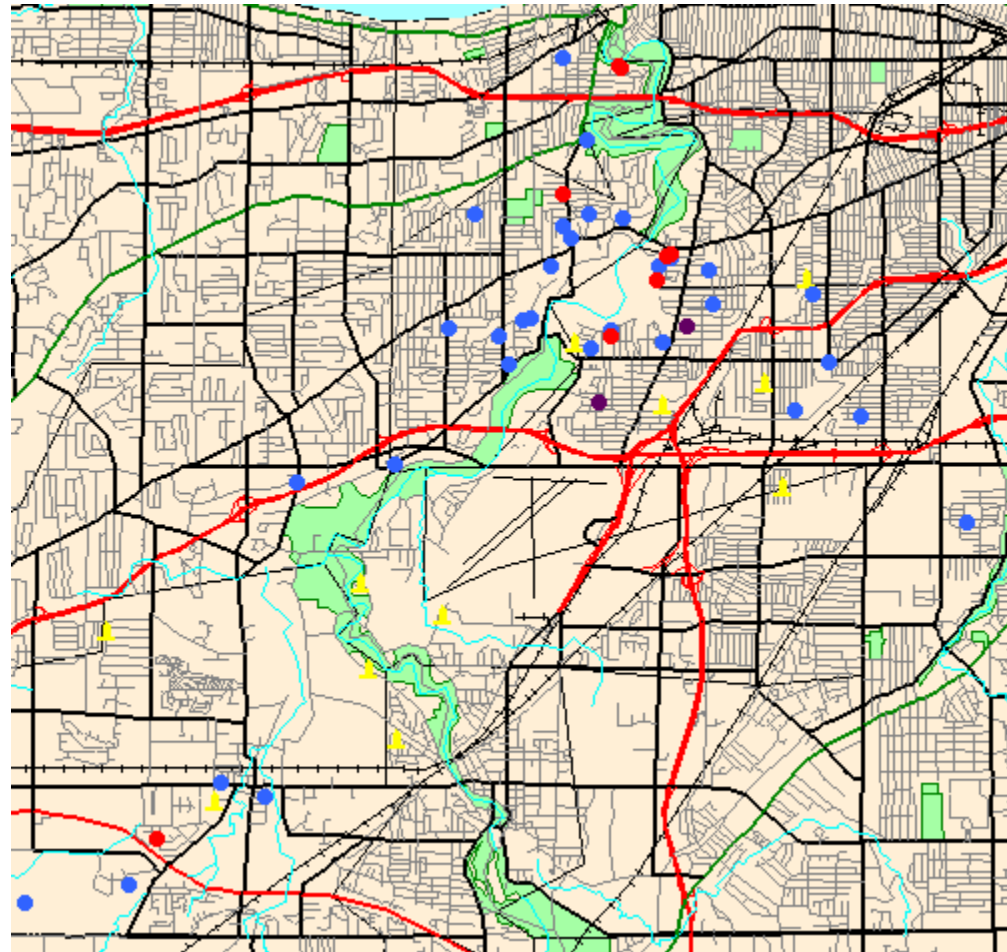
## 2<sup>nd</sup> Quarter, 2009 Complaint Map

Nearly all complaints this quarter are under arrival and departure routes for Runways 6L or 6R.

### LEGEND

Complaints per household

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





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