



Noise Compatibility

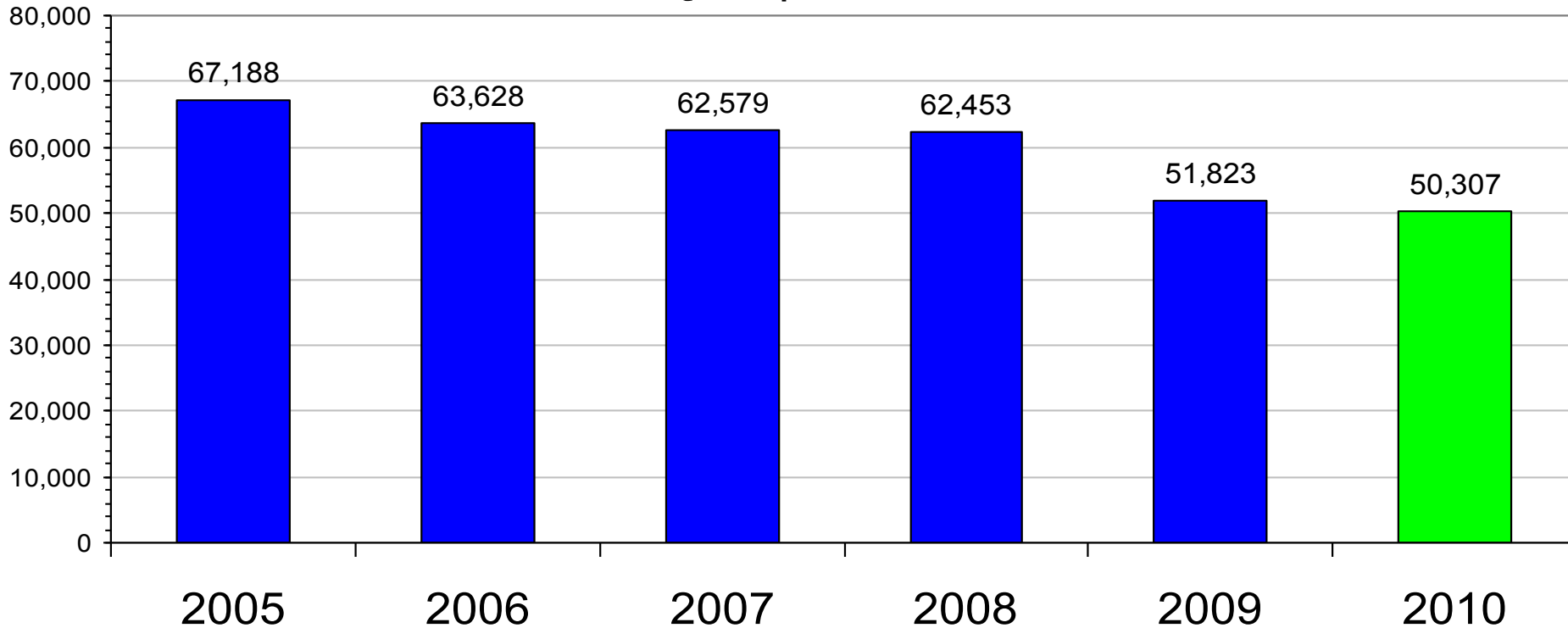
3rd Quarter 2010

November 16, 2010

Aircraft Operations



Cleveland 3rd Qtr. Operations 2005 - 2010



There were 50,307 landings and takeoffs in the 3rd qtr. 2010; this is 2.9% below the 3rd qtr. 2009.

Source: FAA Control Tower Traffic Count Reports

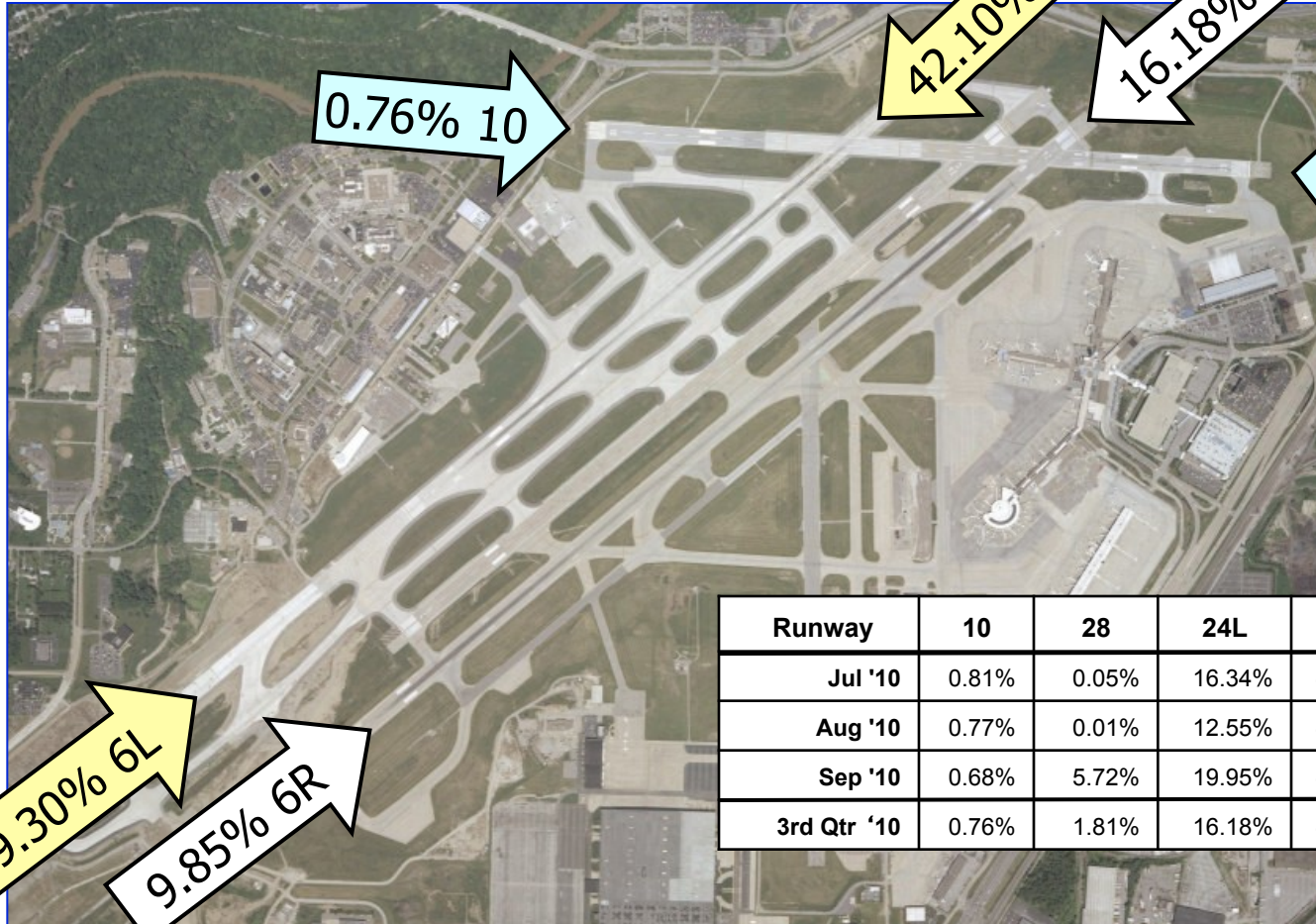
Fleet Mix: 3rd Qtr, 2010 vs. 3rd Qtr, 2009



Landings & Takeoffs

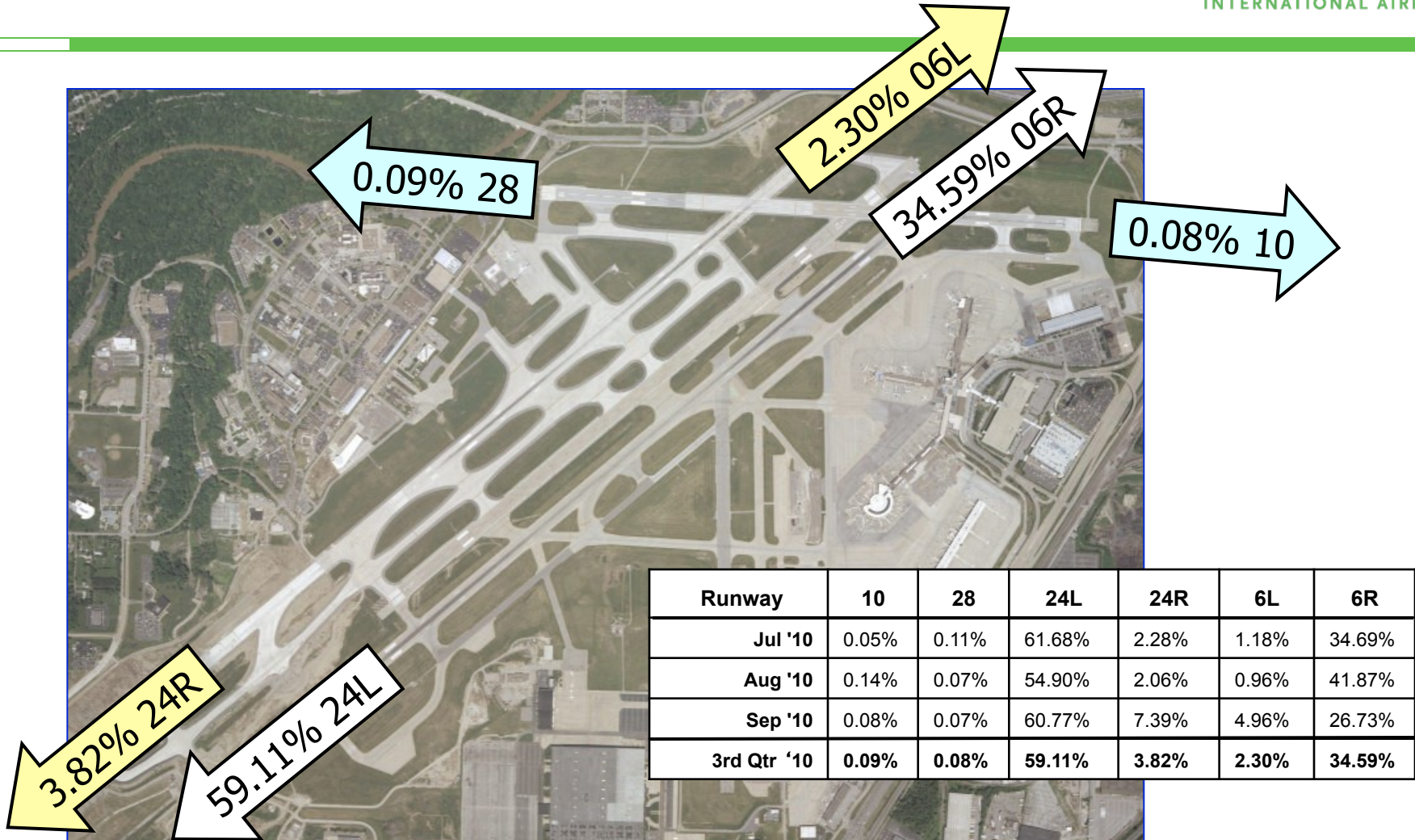
	3 rd Qtr, 2010		3 rd Qtr, 2009	
Commercial				
-Stage 2 with hush kit	174	0.35%	78	0.15%
-Heavy (incl all B757s)	1,041	2.07%	1,268	2.45%
-Other Stage 3	12,688	25.22%	13,735	26.50%
-Regional Jet	25,793	51.27%	25,160	50.48%
-Turboprop	7,345	14.60%	7,863	15.17%
Air Taxi	880	1.75%	502	0.97%
General Aviation	2,268	4.51%	2,107	4.07%
Military	118	0.23%	110	0.21%
Total	50,307	100.0%	51,823	100.0%

Runway Use: 3rd Qtr, 2010 Landings

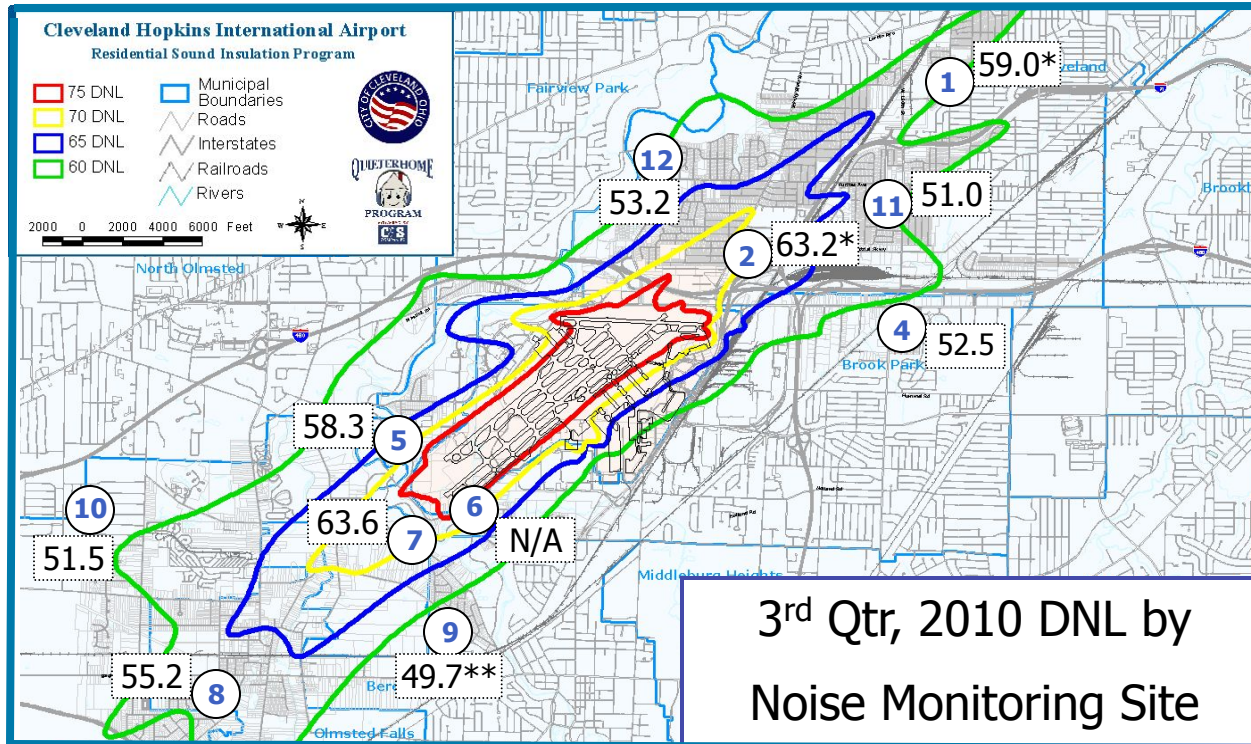


Runway	10	28	24L	24R	6L	6R
Jul '10	0.81%	0.05%	16.34%	43.77%	29.74%	9.29%
Aug '10	0.77%	0.01%	12.55%	40.65%	35.90%	10.12%
Sep '10	0.68%	5.72%	19.95%	41.81%	21.66%	10.18%
3rd Qtr '10	0.76%	1.81%	16.18%	42.10%	29.30%	9.85%

Runway Use: 3rd Qtr, 2010 Take-Offs



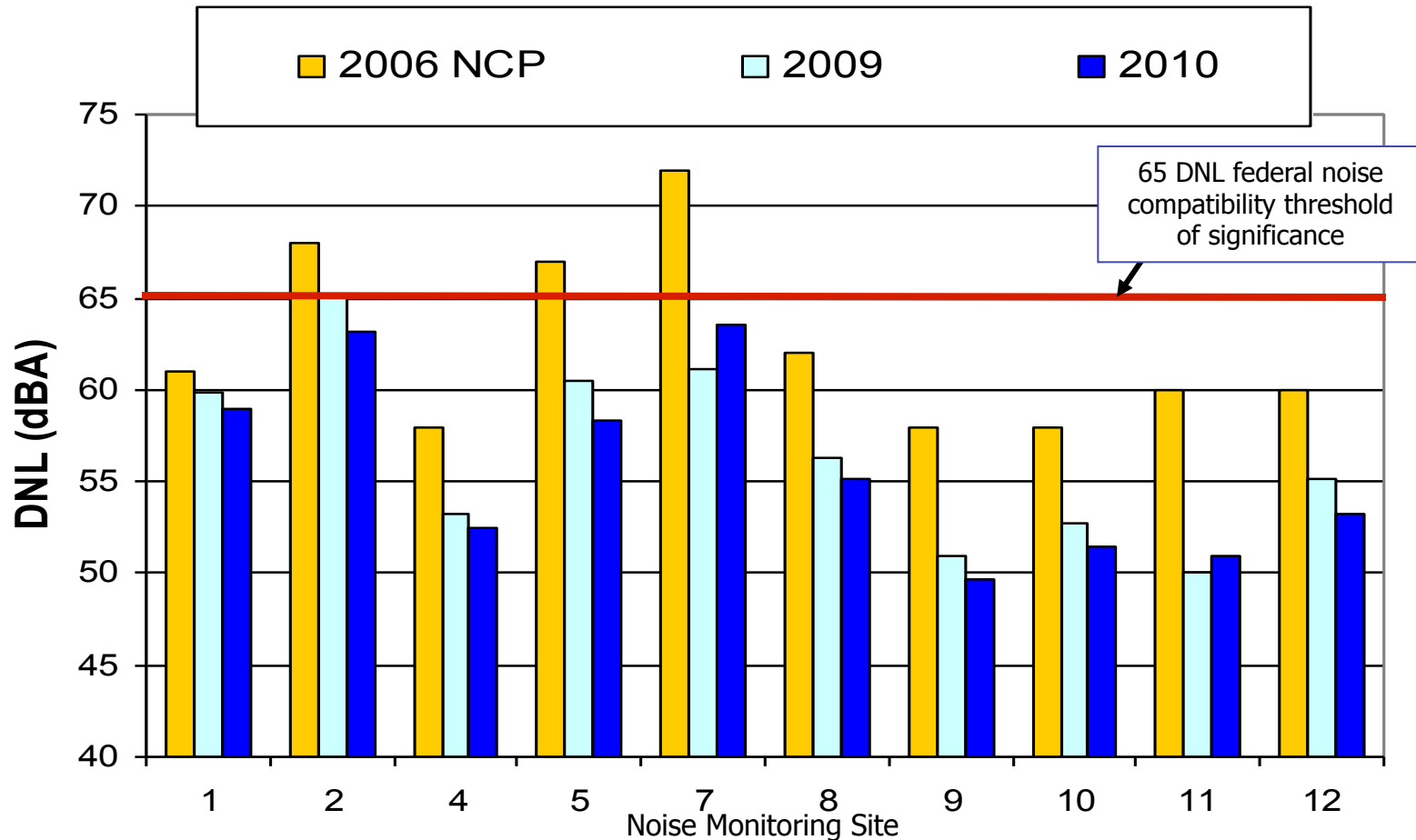
Aircraft Noise



**Due to mechanical problems, NMS09 data was available only intermittently. Aircraft within 6,000 feet of NMS09 were assigned noise values using existing noise data, together with aircraft type, lateral distance, and altitude. Aircraft were assigned zero noise when sufficiently distant. DNL is defined to include an additional 10 dB for flights between 10 PM and 7 AM. DNL was calculated after adding this.

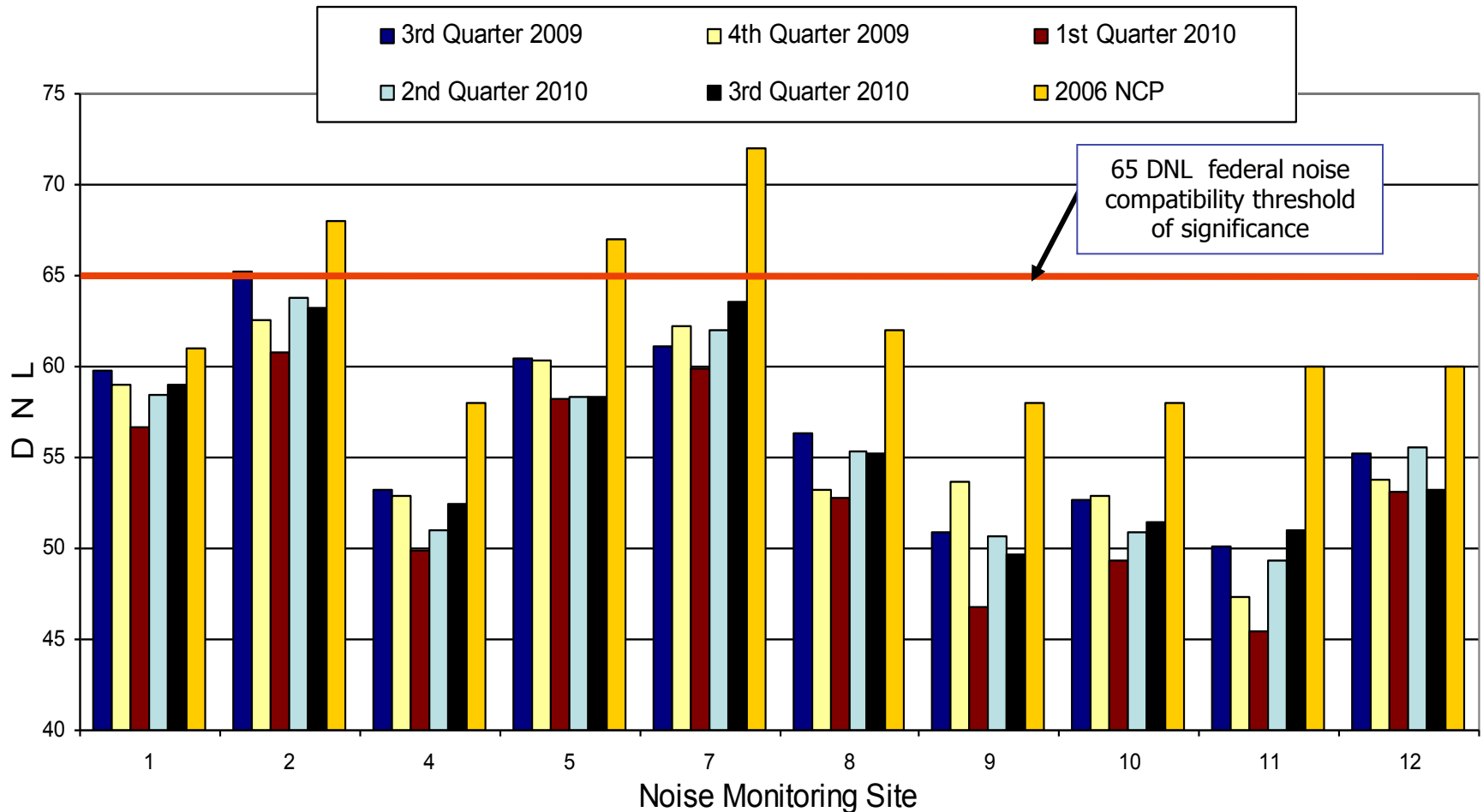
*The signal from NMS01 was lost between Jul 21 and Sep 8. Reported DNL is over the 42 remaining days. NMS02 was out of calibration for most of the quarter and the reported DNL may be off by as much as 2 dB.

DNL: 3rd Qtr, 2010 vs. 3rd Qtr, 2009



NMS09 data was available only intermittently. DNL was calculated to include flight data of aircraft within 6,000 feet. The signal from NMS01 was lost from Jul 21 to Sep 8. Reported DNL is for the 42 remaining days. Most of the quarter, NMS02 was out of calibration and the reported DNL may be off by as much as 2 dB.

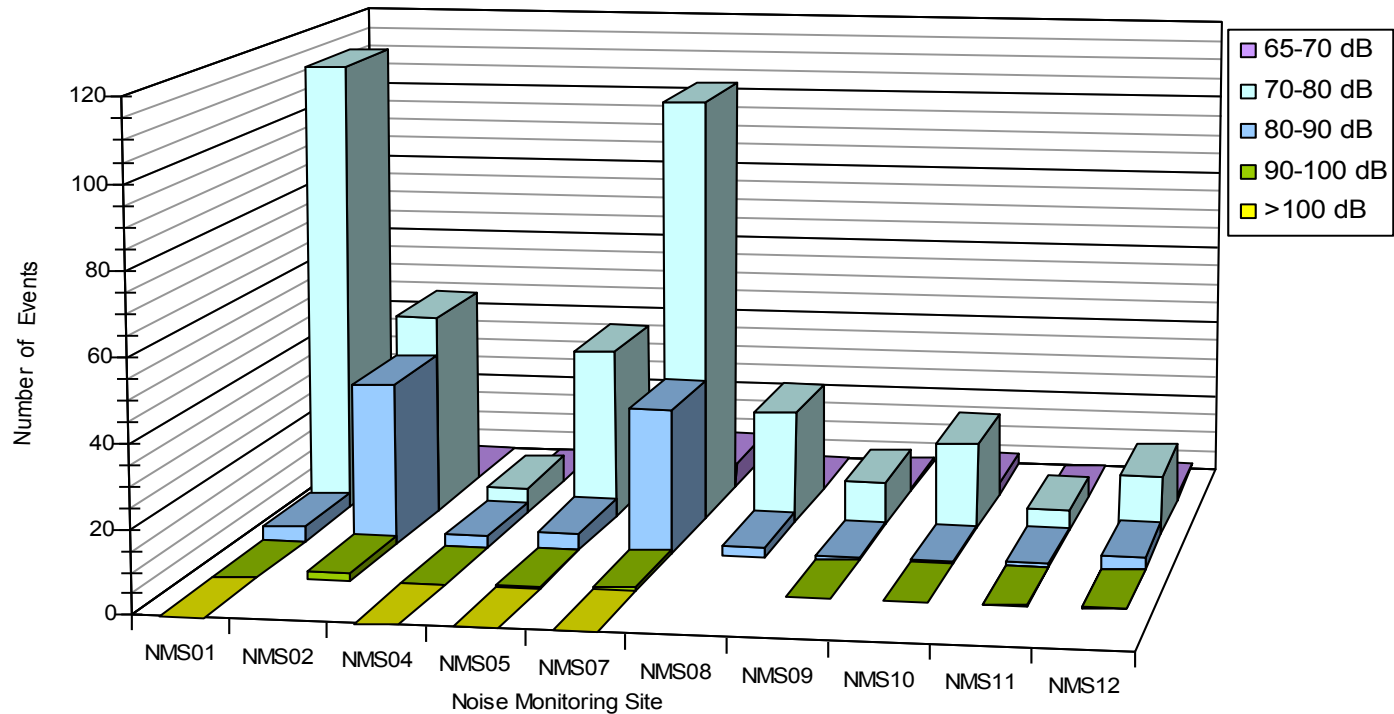
Five Qtr DNL Comparison



NMS09 data was available only intermittently. DNL was calculated to include flight data of aircraft within 6,000 feet. The signal from NMS01 was lost from Jul 21 to Sep 8. Reported DNL is for the 42 remaining days. Most of the quarter, NMS02 was out of calibration and the reported DNL may be off by as much as 2 dB.

Distribution of Noise Events

Distribution of Lmax Averaged by Day, 3rd Qtr, 2010



All sites are based on the number of days of valid data. NMS01 and NMS02 were not sending data for consecutive days, accordingly the chart reflects the average daily measurements over the days when data was available. For NMS09, where malfunctions were intermittent, values reported in this chart are estimated.

Top 3 Lmaxs at each NMS, 3rd Qtr, (1 of 2)



NMS	Lmax (dB)	Aircraft	Operation	Time and date	Sound Exposure Level (dB)	Duration (sec)
NMS01	98.4	Military Jet	Arrival on Rwy 24R	9/24/2010 11:24	103.0	54.5
NMS01	90.5	B727-200	Departure off Rwy 6R	9/22/2010 22:55	97.9	30.0
NMS01	87.5	B727-200	Arrival on Rwy 24L	7/13/2010 4:46	94.0	23.0
NMS02	100.4	B727-100	Departure off Rwy 6R	9/17/2010 19:29	108.7	39.0
NMS02	99.8	B727-200	Departure off Rwy 6R	7/27/2010 23:06	105.3	27.0
NMS02	98.2	B727-200	Departure off Rwy 6R	8/2/2010 23:09	105.5	34.0
NMS04	102.8	Military Jet	Departure off Rwy 6R	9/19/2010 12:16	108.0	38.0
NMS04	92.1	Lear 25	Departure off Rwy 6L	7/26/2010 12:28	99.3	39.0
NMS04	91.4	B727-200	Departure off Rwy 6R	7/12/2010 23:15	98.6	29.0
NMS05	104.1	Military Jet	Departure off Rwy 24R	9/6/2010 13:44	109.6	24.5
NMS05	102.8	Military Jet	Departure off Rwy 24L	9/4/2010 13:33	107.4	21.0
NMS05	101.5	Lear 25	Departure off Rwy 24R	7/21/2010 10:48	107.1	41.5
NMS07	106.3	Military Jet	Departure off Rwy 24L	9/24/2010 12:49	110.2	36.5
NMS07	105.6	Military Jet	Departure off Rwy 24L	9/5/2010 13:12	110.0	31.5
NMS07	100.9	B727-200	Departure off Rwy 24L	9/2/2010 2:22	107.3	32.0

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, 3rd Qtr, (2 of 2)



NMS	Lmax (dB)	Aircraft	Operation	Time and date	Sound Exposure Level (dB)	Duration (sec)
NMS08	88.7	Lear 25	Departure off Rwy 24R	7/6/2010 12:40	97.5	33.5
NMS08	88.1	Lear 25	Departure off Rwy 24L	7/13/2010 12:42	97.8	46.0
NMS08	87.9	B757-200	Arrival on Rwy 6L	9/28/2010 5:00	93.6	37.5
NMS09	96.1	Lear 25	Departure off Rwy 24L	9/24/2010 17:29	100.7	40.5
NMS09	93.0	DC9-50	Departure off Rwy 6R	7/28/2010 18:55	100.5	39.5
NMS09	88.7	Lear 25	Departure off Rwy 24R	8/5/2010 14:32	96.3	37.0
NMS10	90.1	B727-200	Departure off Rwy 24L	8/9/2010 23:05	96.5	29.5
NMS10	90.0	Lear 25	Departure off Rwy 24R	7/21/2010 10:48	96.4	39.5
NMS10	89.6	B727-200	Departure off Rwy 24L	8/16/2010 23:19	97.2	29.5
NMS11	93.0	B727-200	Departure off Rwy 6R	7/27/2010 23:06	99.8	31.0
NMS11	91.3	B727-200	Departure off Rwy 6R	8/2/2010 23:09	100.0	39.0
NMS11	90.5	B737-200	Departure off Rwy 6R	8/13/2010 10:13	98.4	32.5
NMS12	99.8	Military Jet	Arrival on Rwy 24R	9/6/2010 13:43	105.7	16.5
NMS12	98.5	Unknown	Arrival on Rwy 24R	9/3/2010 13:30	100.5	17.5
NMS12	95.5	Military Jet	Departure off Rwy 6R	9/20/2010 9:59	101.5	34.0

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

Noise Hotline (216.898.5220)



	Jul	Aug	Sep	3rd Qtr	%	Callers	%
Berea	0	0	0	0	0.00%	0	0.00%
Brook Park	0	0	0	0	0.00%	0	0.00%
Cleveland	11	11	16	38	51.35%	14	46.67%
Fairview Park	4	2	1	7	9.46%	7	23.33%
Lakewood	0	0	0	0	0.00%	0	0.00%
Middleburg Hts.	0	0	0	0	0.00%	0	0.00%
North Olmsted	0	0	1	1	1.35%	1	3.33%
Olmsted Falls	0	0	0	0	0.00%	0	0.00%
Olmsted Twp	3	0	0	3	4.05%	3	10.00%
Parma	0	0	0	0	0.00%	0	0.00%
Parma Heights	0	0	0	0	0.00%	0	0.00%
Rocky River	10	11	3	24	32.43%	4	13.33%
Westlake	0	0	0	0	0.00%	0	0.00%
Other	0	0	1	1	1.35%	1	3.33%
Total (2010)	28	24	22	74	100.00%	30	100.00%
Total (2009)	51	74	159	284	100.00%	114	100.00%

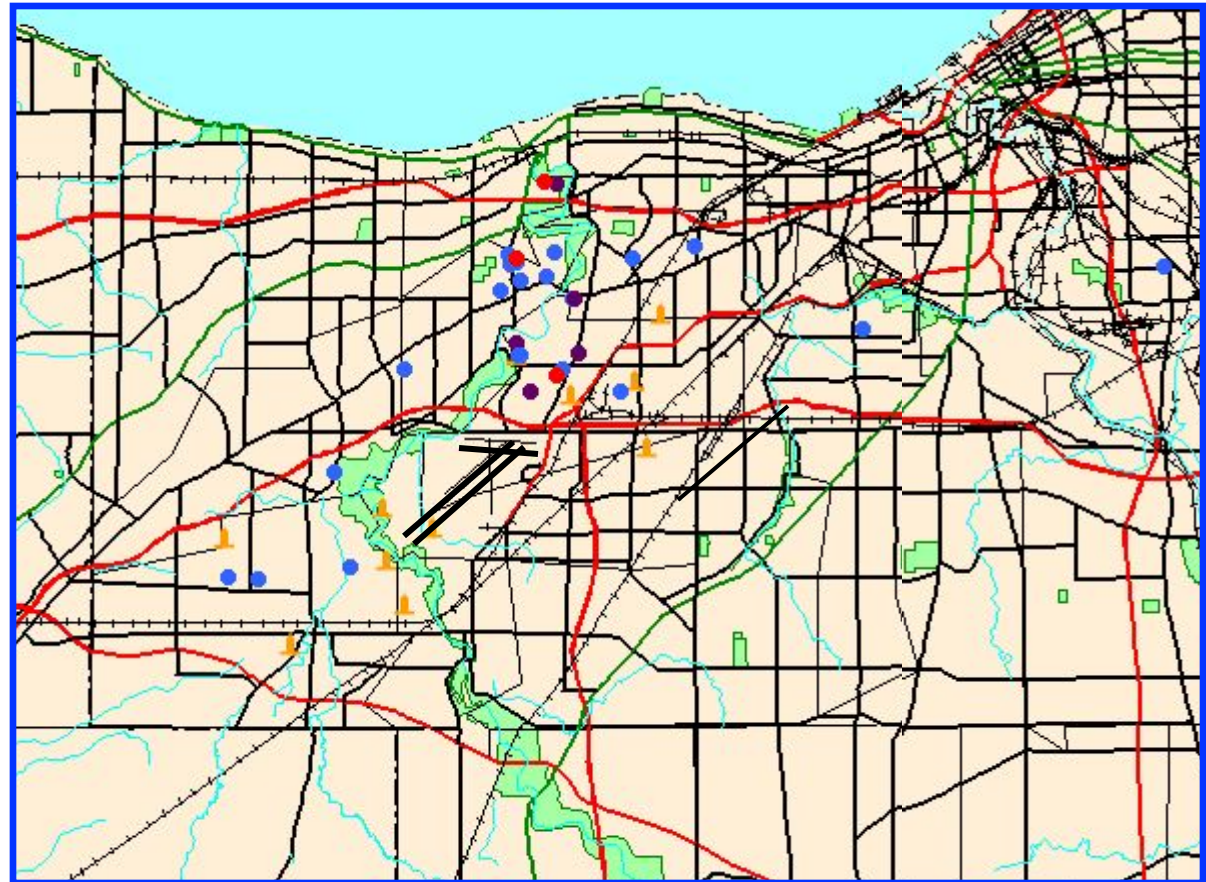
Due to rounding, percentages may not add to 100%

Complaint Location Map: 3rd Qtr, 2010

LEGEND

Complaints per household

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



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