

# GTAA

## 2008 NOISE MANAGEMENT REPORT

Toronto Pearson International Airport



# Annual Percentage of Specific Movements by Aircraft Type

Operations by the Airbus A320 series, the Boeing 737 new generation (NG), Canadair Regional Jet (CRJ) and Embraer Regional Jet (ERJ) totalled just under 50 per cent of all aircraft movements. These aircraft were all manufactured to meet Chapter 3 requirements and are among the quietest aircraft that operate at the airport.

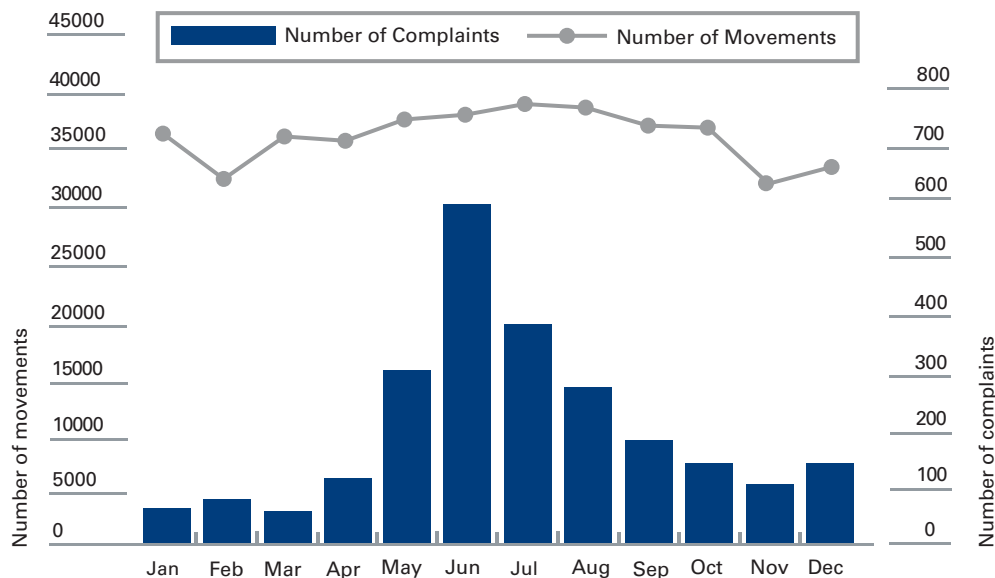
Figure 1



Non-jet aircraft operations accounted for 16 per cent of total aircraft movements in 2008. The most common turboprop aircraft operating at Toronto Pearson was the twin engine De Havilland Dash 8, representing 10 per cent of all movements at the airport.

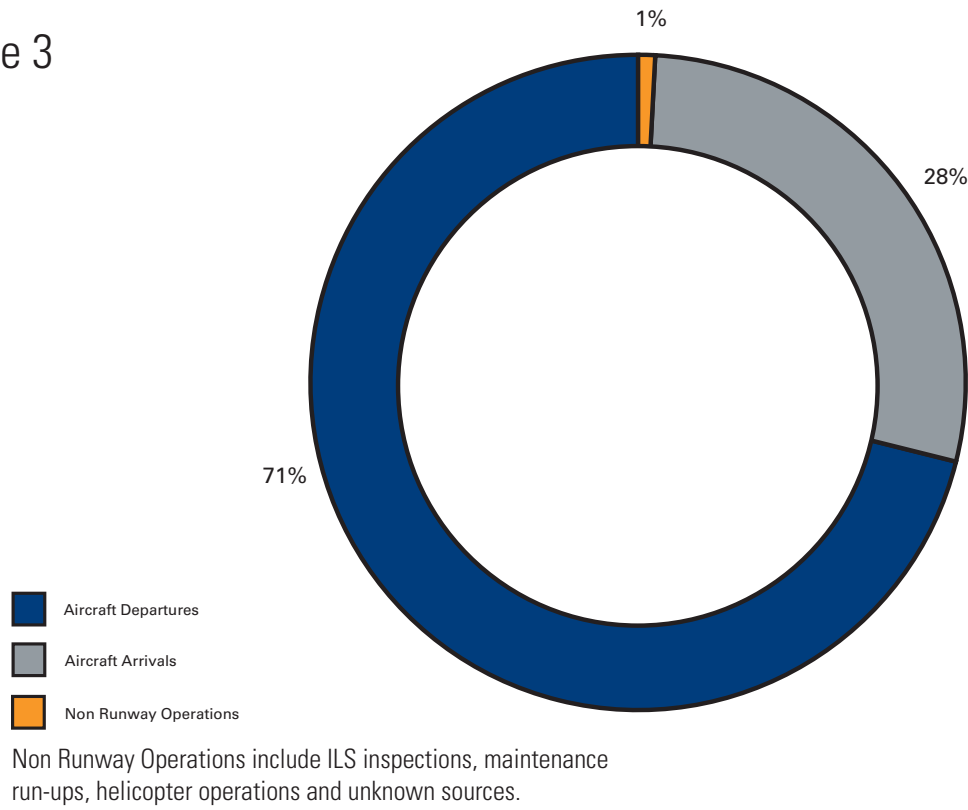
# Monthly Comparison of Runway Movements and Noise Complaints

Figure 2



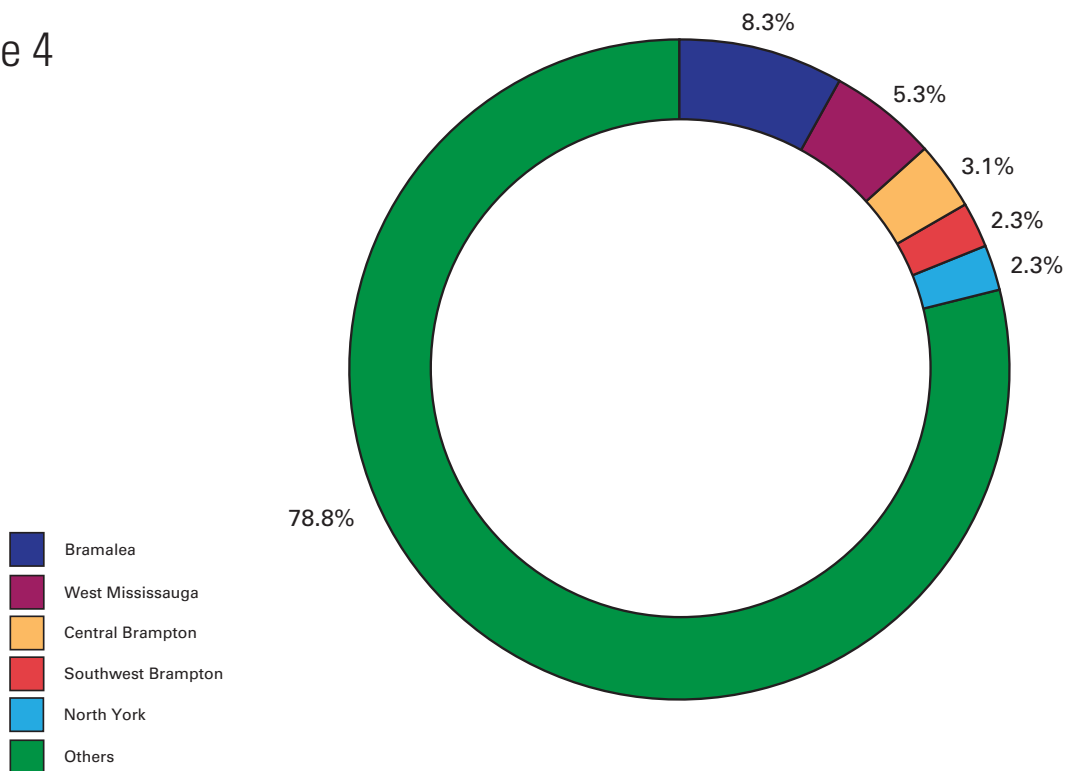
# Noise Complaints by Operation

Figure 3



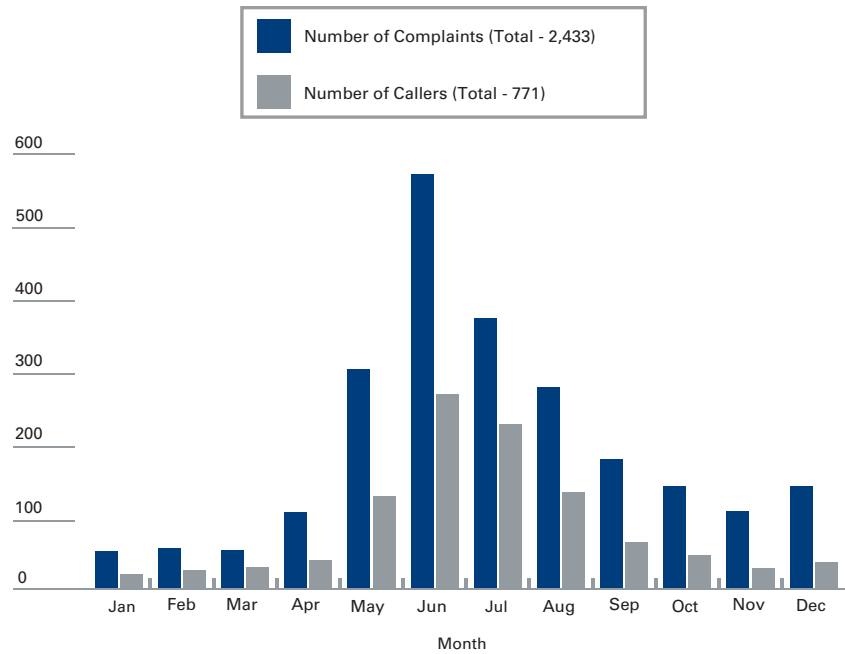
# Top Five Callers vs. All Other Callers

Figure 4



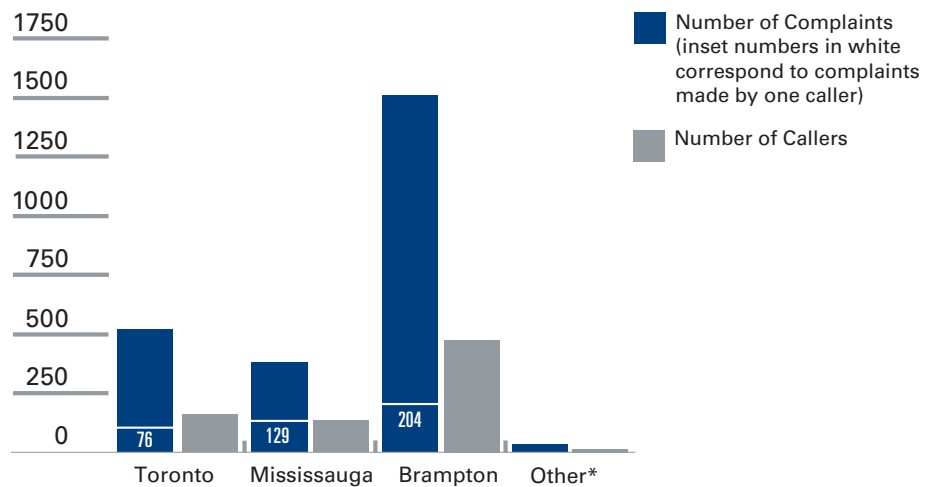
# Monthly Comparison of Noise Complaints and Callers

Figure 5



# Comparison of Noise Complaints by Municipality

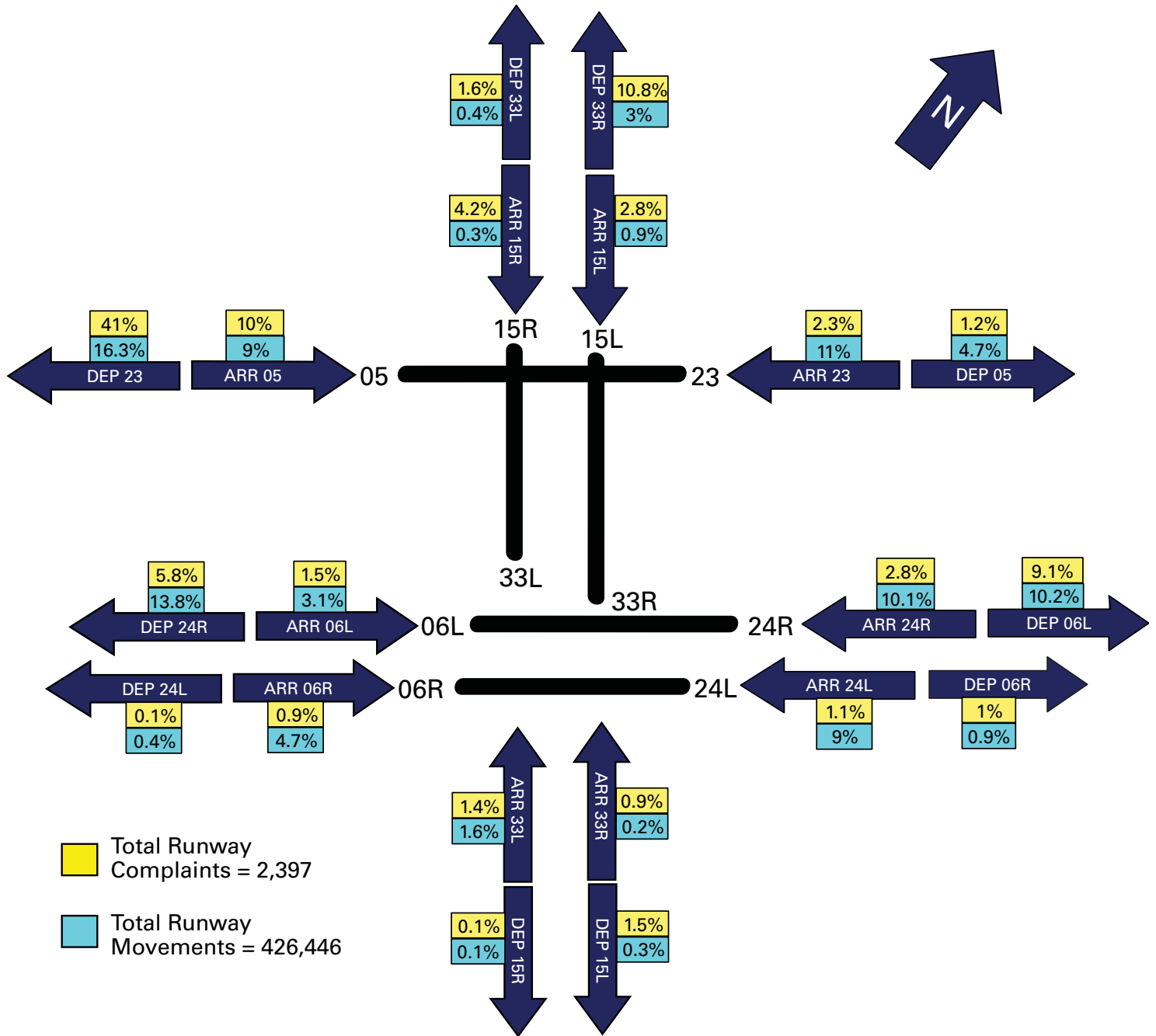
Figure 6



\* 30 other complaints registered from: Halton Hills - 22, Milton - 1, Oakville - 2, Vaughan - 5

# Comparison of Noise Complaints by Runway Operation

Figure 7



**Note: Non Runway Complaints**

16 missed approaches, 6 flight inspections, 5 helicopter, 1 maintenance run-up, 8 unknown.

# Comparison of Aircraft Movement and Noise Complaints by Runway Operation

Figure 8

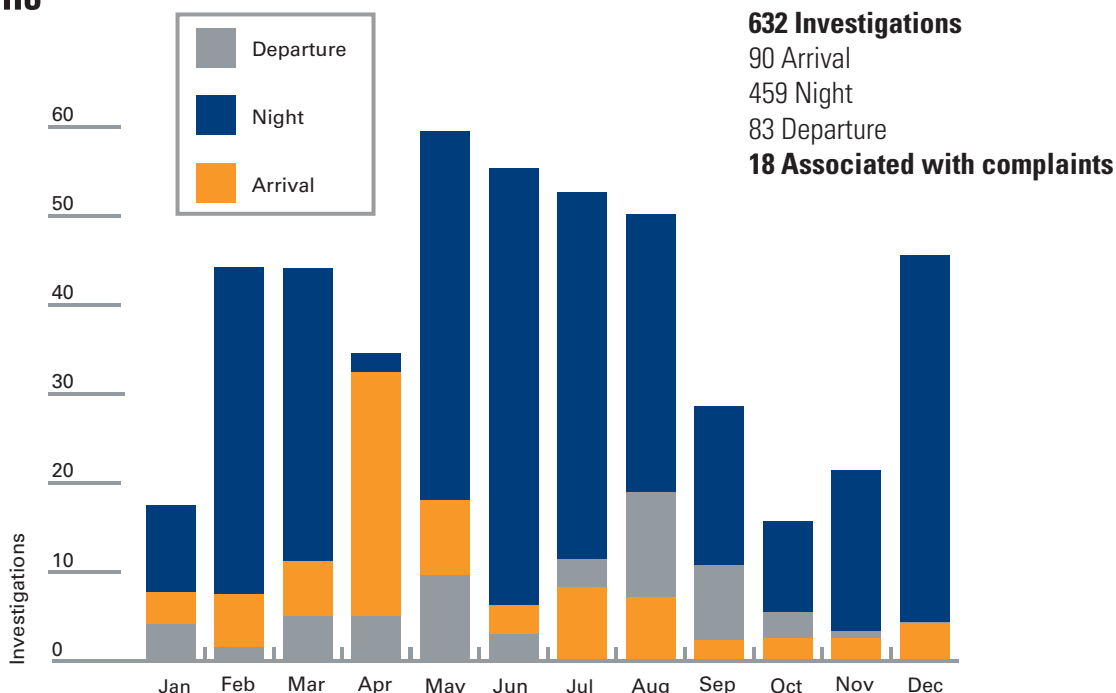
ARRIVALS			DEPARTURES		
Runway	Movements	Complaints	Runway	Movements	Complaints
Arrive 23	47073	55	Depart 05	19963	28
Arrive 24R	42965	67	Depart 06L	43709	217
Arrive 24L	38290	27	Depart 06R	3911	24
Arrive 33R	843	21	Depart 15L	1374	37
Arrive 33L	6937	33	Depart 15R	305	2
Arrive 06R	19964	22	Depart 24L	1663	2
Arrive 06L	13401	36	Depart 24R	58766	139
Arrive 05	38526	240	Depart 23	69358	982
Arrive 15R	1221	101	Depart 33L	1501	38
Arrive 15L	3727	68	Depart 33R	12949	258
<b>Total Arr</b>	<b>212947</b>	<b>670</b>	<b>Total Dep</b>	<b>213499</b>	<b>1727</b>
<b>Total All Runways</b>				<b>426446</b>	<b>2397</b>
<b>Non Runway Complaints*</b>					<b>36</b>
<b>Total Complaints</b>					<b>2433</b>

2,397 complaints were registered against a particular runway operation.

\*The remaining 36 complaints were registered against missed approaches, ILS inspections, maintenance run-ups, helicopter operations and unknown sources.

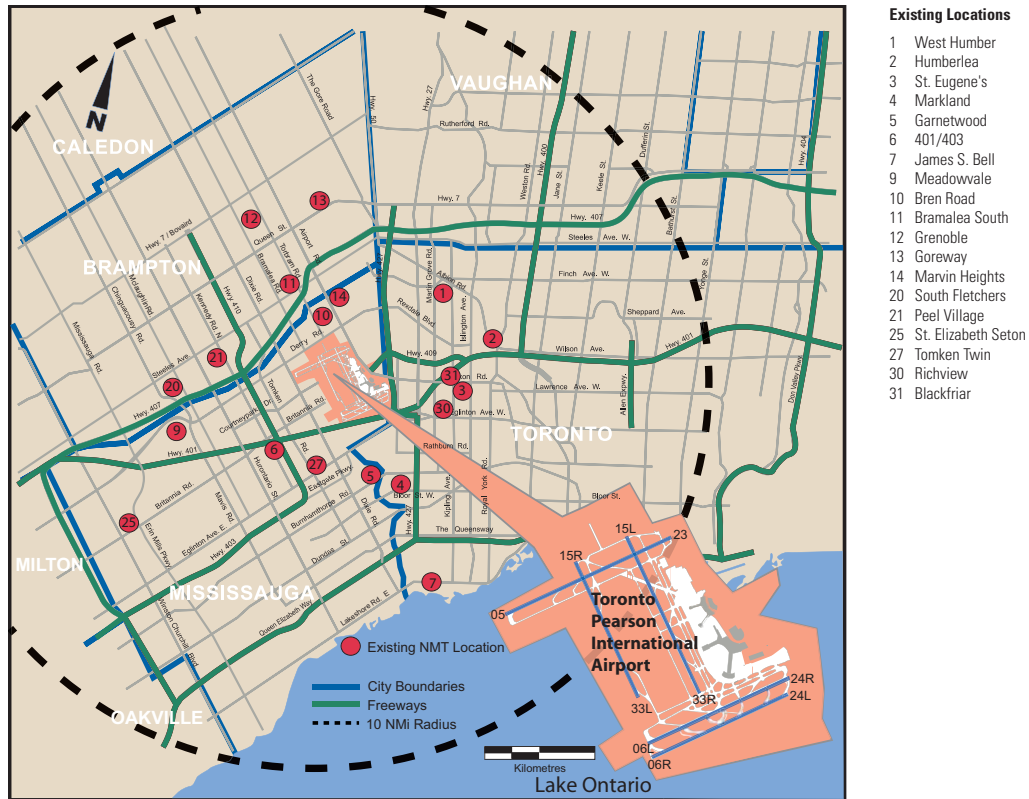
## Monthly Enforcement Investigations

Figure 9



# Noise Monitor Terminal Locations

Figure 10



# Noise Monitoring Terminal Monthly LEQ (dBA) 2008

Figure 11

NMT	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Toronto</b>													
1	West Humber	60.0	57.5	58.4	58.9	59.8	60.5	-	-	-	59.8	-	60.2
2	Humberlea	58.9	57.6	57.4	58.8	-	58.9	61.6	-	60.8	59.2	59.3	-
3	St. Eugene's	59.5	56.5	56.0	57.3	56.9	57.0	53.7	54.1	55.0	56.3	56.0	59.1
4	Markland	-	54.9	-	-	-	-	-	-	-	-	-	56.1
7	James S. Bell	55.6	54.3	54.9	56.1	55.7	58.2	59.0	58.2	57.5	56.3	55.1	56.1
30	Richview	59.8	57.6	57.8	59.1	59.3	57.9	57.1	57.0	57.3	-	63.7	57.9
31	Blackfriar	65.0	63.9	64.7	65.1	65.6	-	-	-	-	-	65.0	-
<b>Mississauga</b>													
5	Garnetwood	57.5	55.1	55.9	55.4	56.1	54.4	-	-	53.0	57.2	54.8	57.9
6	Hwy 401 & Hwy 403	62.3	60.3	62.0	68.0	63.5	-	-	-	62.0	62.7	66.2	61.6
9	Meadowvale	57.3	56.1	56.8	58.4	58.9	58.9	58.4	-	-	59.3	58.4	56.5
10	Bren Road	62.7	62.2	63.3	67.6	-	63.7	64.4	64.3	64.0	63.9	66.8	64.3
14	Marvin Heights	58.9	56.7	56.9	57.7	-	56.5	-	-	-	-	57.9	57.4
25	St. Elizabeth Seton	59.8	58.4	-	-	-	-	-	-	-	-	-	-
27	Tomken Twin	63.1	61.4	60.2	61.2	59.9	-	59.8	58.9	59.7	60.1	67.4	62.9
<b>Brampton</b>													
11	Bramalea South	54.9	54.2	-	56.0	55.4	55.2	56.4	58.1	56.0	56.6	56.2	56.1
12	Grenoble	58.5	56.0	54.1	55.8	53.6	53.1	52.8	52.5	52.3	54.5	53.7	59.4
13	Goreway	56.6	53.8	54.5	58.8	55.9	55.0	58.0	55.3	55.4	57.4	55.7	-
20	South Fletchers	63.3	61.7	62.1	62.0	62.1	61.8	61.4	61.4	62.0	62.4	62.6	62.5
21	Peel Village	55.8	-	-	56.2	-	56.2	57.6	56.6	54.5	55.6	54.0	56.9

**Notes:**

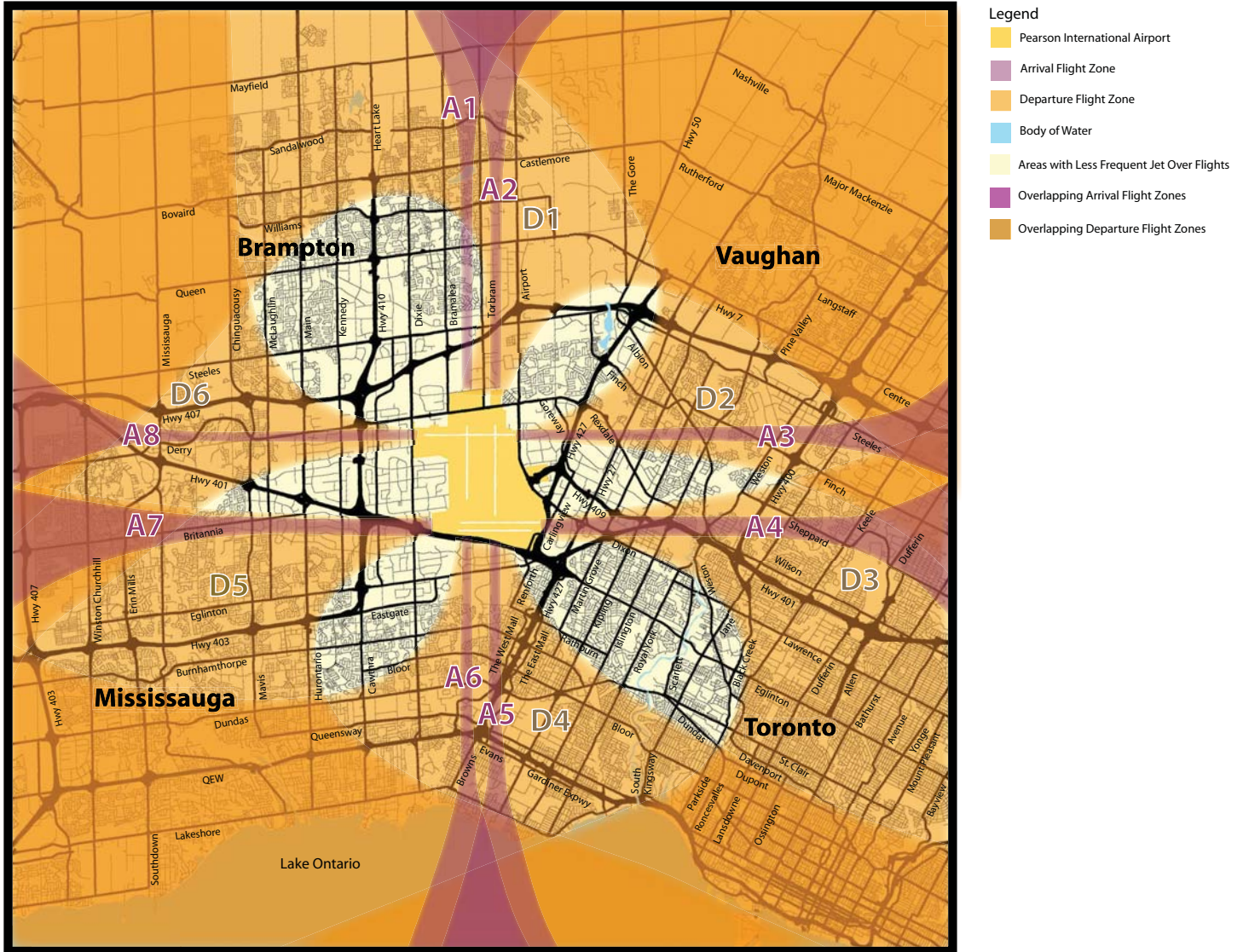
1. Noise level data provided for NMTs that were active over 75% of the time.
2. NMT #25 analyzer removed in March 2008.

Figure 11 shows the measured monthly average noise levels at each Noise Monitoring Terminal (NMT). Noise data represented includes the contribution of all noise sources, and not simply aircraft generated. The varying locations of the NMTs in the community contribute to the variation in noise levels, where some NMTs may be closer than others to regular arrival and departure flight paths.

# Jet Flight Path Movements Chart

Figure 12

In an effort to better communicate with local residents and provide tools that describe aircraft activity near Toronto Pearson, the GTAA has developed a Jet Flight Path Movements Chart to illustrate the general flight patterns of the majority of Toronto Pearson's jet aircraft operations. While this chart does not indicate the level of noise generated by aircraft activity in an area nor the level of community annoyance, it does provide valuable information when used in conjunction with other traditional aircraft noise maps and resources.



Flight Zone Names	Daily Average Movements	Percentage of All Movements	Daily Range of Movements	Days With No Movements	Associated Runway(s)
A1	3	3.0%	0-131	338	15R
A2	9	1.0%	0-181	180	15L
A3	112	11.4%	0-301	65	23
A4	182	18.6%	0-397	93	24L & 24R
A5	2	0.2%	0-89	311	33R
A6	16	1.6%	0-440	286	33L
A7	76	7.8%	0-366	145	06L & 06R
A8	88	9.0%	0-413	106	05
D1	28	2.8%	0-467	117	33L & 33R
D2	47	4.8%	0-251	150	05
D3	111	11.3%	0-426	153	06L & 06R
D4	4	0.4%	0-150	298	15L & 15R
D5	140	14.4%	0-332	80	24L & 24R
D6	161	16.5%	0-472	38	23
Arrivals (A1-A8)	488	49.9%			
Departures (D1-D6)	490	50.1%			
Total Jet Movements	978	100.0%			

Notes:

- 1) The flight zones illustrated are intended to reflect the general flight path patterns of the majority of Pearson's jet aircraft operations. Some jet operations do occur outside these zones.
- 2) The information presented excludes non-jet aircraft (piston and turboprop) using Pearson, and any over flights unrelated to Pearson (en route aircraft flying through the area) to maximize the clarity of the presentation and to focus on the types of operations with the most significant noise impact.
- 3) The arrival flight zones reflect primarily the final approach phase of the arrival, excluding any earlier phases that may pass through the airport vicinity prior to joining the final approach path.
- 4) The departure flight zones do not reflect the flight paths of the smaller, quieter jet aircraft that are permitted to conduct early departure turns (similar to non-jet aircraft), although these operations are included in the table.
- 5) Although the yellow map areas, 'Areas with Less Frequent Jet Over Flights' are not within arrival or departure flight zones, they are not completely free of over flights. These areas may be over flown by jet aircraft operating outside of the general jet flight zones (see Note 1), non-jet and over flights not associated with Pearson (see Note 2), arrivals prior to joining the final approach path (see Note 3), and early turn jet departures (see Note 4).
- 6) The information reflects traffic levels and flight zones for the year 2008 only. It does not project future airport operations. Long term traffic volumes are expected to increase as demand for air travel services increases.
- 7) This map only presents the general location and number of jet aircraft operations at Pearson and is provided for general information purposes only. It does not quantify the noise impacts associated with those operations. The noise associated with operations within any of the flight zones may be heard outside of the zone itself. This information does not replace the Noise Exposure Forecast system used for land use planning purposes.

