

UNDERSTANDING NOISE COMPLAINTS

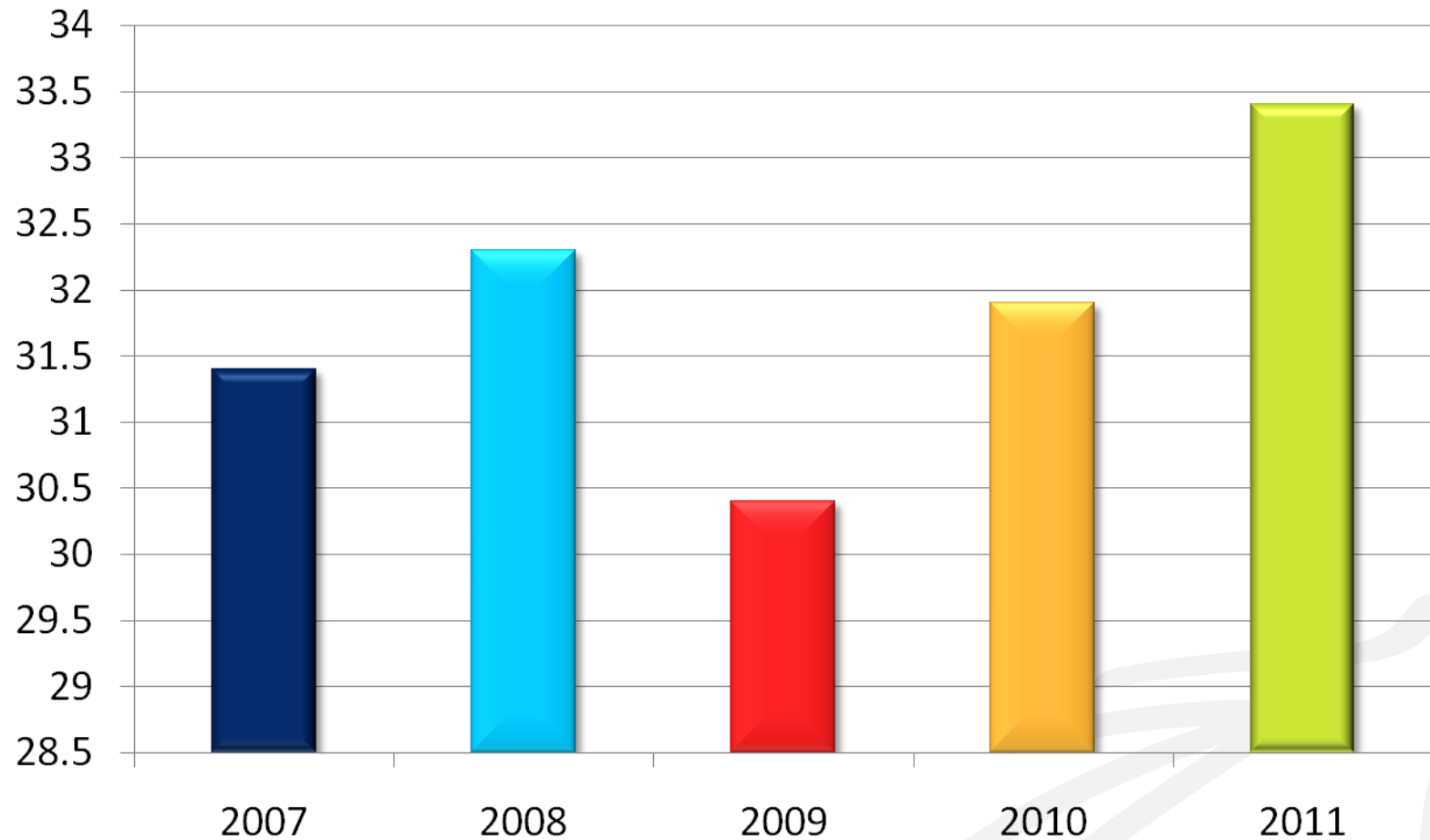
Agenda

- Objective of Meeting
 - Toronto Pearson – We are Growing
 - Mitigating our Impacts
 - Where Complaints Fit
 - Toronto Pearson's Noise Complaint Process
 - What's next
- 

Objective of this session

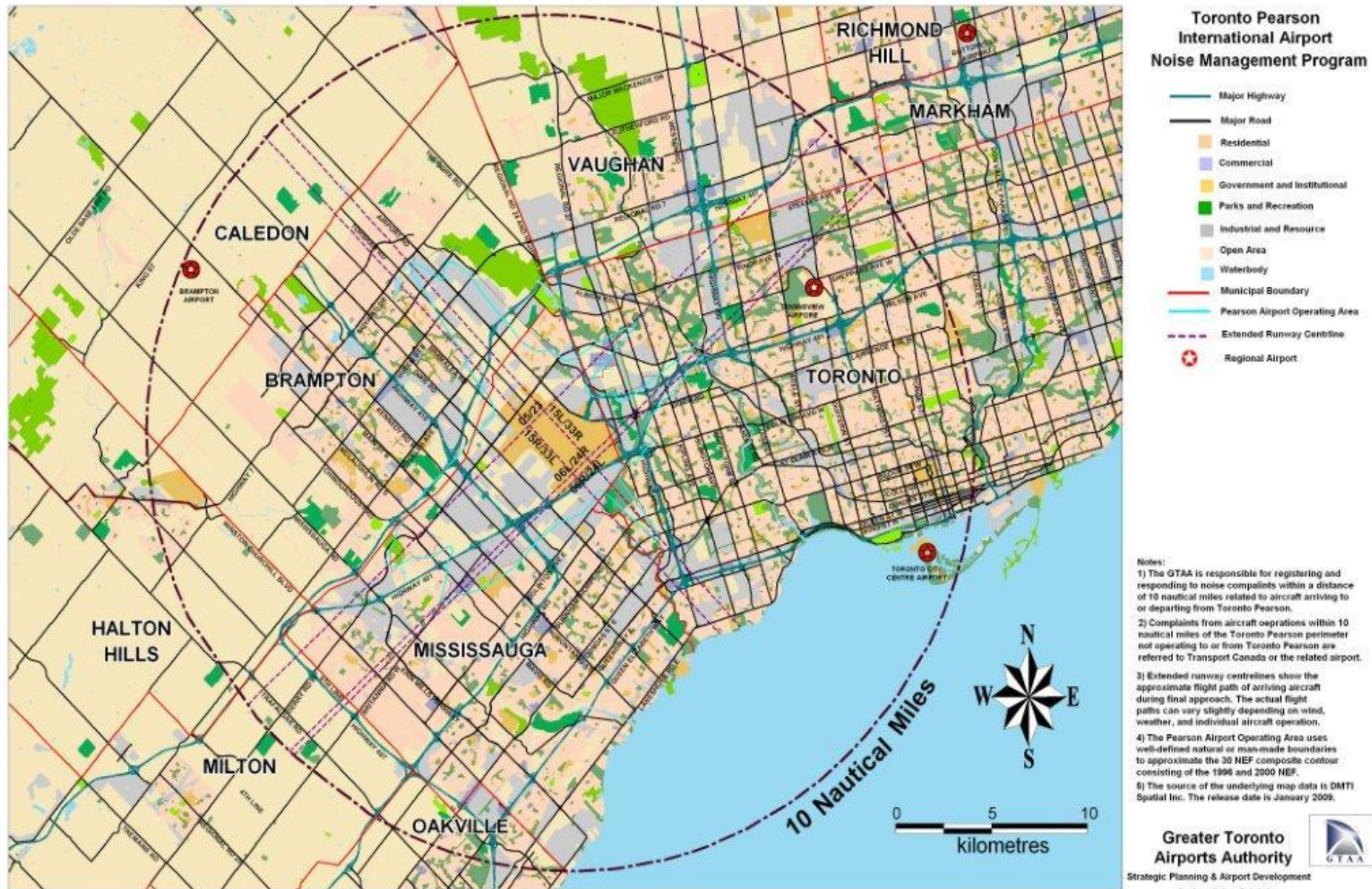
- Situate complaints as one tool in our kit of mitigation measures
- Share the process, build understanding
- Get feedback - are we tracking and reporting on the trends that matter to the community?
- Improve complaint collection and usage

Passenger Traffic (millions)



MITIGATING OUR IMPACT

Our Area of Responsibility



Our Industry

- Noise management is a complex issue that balances variables:
 - Safety
 - Travellers want better connections to more destinations
 - Airlines want to
 - improve overall operational efficiencies
 - reduce fuel consumption and greenhouse gas emissions
 - Understanding that we operate in an intensely urban area
 - Airport's mandate to provide aviation services to meet the demands of Southern Ontario

These factors are considered when working to strike a balance between operating a growing airport and regional economic engine and the impact on our neighbours

Our Toolbox


- Noise Management Program
 - Noise certification, Night Flight Restriction Program, Standard arrival and departure procedures
- Operate a Noise Management Office
- Establish and enforce noise mitigation measures
- Host Community Environment & Noise Advisory Committee (CENAC)
- Coordinate activities to build awareness and understanding around airport operations
- **Complaints – collection, analysis, investigation, tracking and reporting**

COMPLAINTS

Tough Questions



Why you make complaints


- **Seek a change in airport operations**
 - **Express a concern about a:**
 - Specific operation
 - Specific aircraft
 - Specific procedure
 - Change or an aircraft noise not previously noticed
 - **Seek Information**
 - Airport noise and operations, in general
- 

Do complaints result in change?

- People often ask if filing noise complaints will change how the airport operates
 - Unfortunately, it is not that simple
- Most complaints are against a standard, permitted operation
 - Aircraft following required procedure
 - Procedure is determined by operational factors, such as wind and weather, entrenched noise abatement procedures
 - An “uncontrollable” nighttime operation, such as medevac flights, military and police operations, weather

Why don't more complaints result in change?

Because we are:

- Governed by safety
 - Highly regulated, little flexibility
 - Operating a mature airport in a mature environment
 - A robust noise management program with rigorous check and balances
 - 95% of jet aircraft operating at Toronto Pearson are Chapter 4 compliant
 - The noise footprint around Toronto Pearson has reduced significantly over the past 15 years
- 

Why complaints matter

- Noise Management is a significant consideration in decision making by the GTAA
- The Noise Management Program and associated published procedures in place today are in part the result of noise concerns, impacts and trends over the years

Why complaints matter

Validation


- A check that procedures are being followed - no deviation from the noise abatement procedures
- Data collection – validate our operations
- Identify trends or irregularities that may need to be investigated or assessed
- Track trials
- Sense of impact of airport operations

Outreach & Education

- Educate
- Provide accurate information
- Provide insight to what noise issues are, gauge level of concern over a procedure or operation
- Tool for elected officials to understand community concerns
- Interact and engage with our neighbours

THE PROCESS

What typically generates a complaint?

- Aircraft (time of day/season)
 - Normal operations (specific operation)
 - Unusual operations (construction/weather)
 - General Information
 - Media
 - Aircraft not previously noticed
 - Trials
 - Change in flight patterns
 - Noise event (a loud noise)
 - New resident
 - Potential violation
- 

Make a Noise Complaint

- **Direct**
 - Phone
 - Noise Management Office (416-247-7682)
 - Monday to Friday 8 AM to 5 PM
 - Prompted voice message system after hours/weekends
 - Internet - website
 - TorontoPearson.com (On-line form)
- **Indirect**
 - Email
 - Elected officials

Information Required to Register a Complaint

- **Date and time of incident**
- **Location and description of event (usually same as above)**
 - As much information as possible to ensure the event is investigated and responded to accurately
- **Personal information to register a complaint:**
 - Name
 - Address/City/Postal Code
 - Phone number
- **Missing information**
 - Cannot investigate; therefore
 - Cannot register

Complaints – Method Received - 2011

	Email	Voicemail	Telephone	Other	Total
Total	433	204	155	1	793
Response Requested	263	140	22	1	426
Response Not Requested	170	64	133	0	367

Types of Complaints

- **Complaints recorded in the Noise Complaint Database**
 - Aircraft specific complaint (650 complaints in 2011)
 - E.g. Flight123, A320, departure off of Runway 23
 - Operational complaint (143 complaints in 2011)
 - E.g. Arrivals on Runway 33L
- **Complaints are further categorized by source (for example):**
 - Too loud; too late; too frequent; too low; too early
 - Downwind
 - Rollback noise
 - Flight Check
 - Prop Departure
 - Early Jet Turn
 - Weather Avoidance
 - Trial
 - Overshoot

Investigating a Complaint

- **All complaints are investigated by the Noise Management office**
- **Airport Noise Monitoring and Flight Tracking System to:**
 - Query date and time of incident
 - Identify location
 - Review related flight tracks and operations
 - Correlate specific flight/operation with flight track data and noise data (if available)
 - Follow up with a callback if requested
 - Register the complaint in the Noise Complaint Database



Rec. Date: 12/27/01 **Rec. Time:** 07:00 **Salutation:** MR. **First Name:** **Last Name:**
Inc. Date: 12/25/01 **Inc. Time:** 22:07 **Street:** **Unit #:** UNK.
Duration: **Days:** 0 **Hours:** 0 **Total:** 0 **Hours** **City:** BRAMPTON **Province:** ONTARIO **Postal Code:** L6T1T5
Mun. Ward: 63 **Fed. Elect.:** UNKNOWN
Home Tel.: **Bus. Phone:** **Ext.:** UNK.
Operator: JB **Method:** VOICE MAIL **V. Position:** **V. Position:** **Airport:** UNKNOWN

Correlation

Exit Complaint Entry Return To Complaint Entry

Displaying Correlated Flight Times At The Closest Point Of Approach From 22:02 To 22:12

Distance (M)	Altitude (Ft)	At Time	Flight	Start Time	Operation	Runway	Type
1497	2300	:06:30 PM	DLH471	22:05:33	DEP	33R	B742
5542	800	:03:12 PM	KAL281	22:03:12	DEP	23	B742
5827	600	:10:18 PM	ACA1144	22:00:17	ARR	23	B763
9517	700	:03:33 PM	ACA820	21:52:03	ARR	24R	A320

Date: 12/25/01

Search Window

10

Searching Flights:

From: 21:42

To: 22:12

Continue

Filter

ID = 'DLH471' AND START_TIME = '22:05:33' OR ID = 'DLH471' AND START_TIM

Clear

Show Flights

Enter Flight

Enter Data Direct

Flight I.D.:

Aircraft Type:

Operation:

Runway:

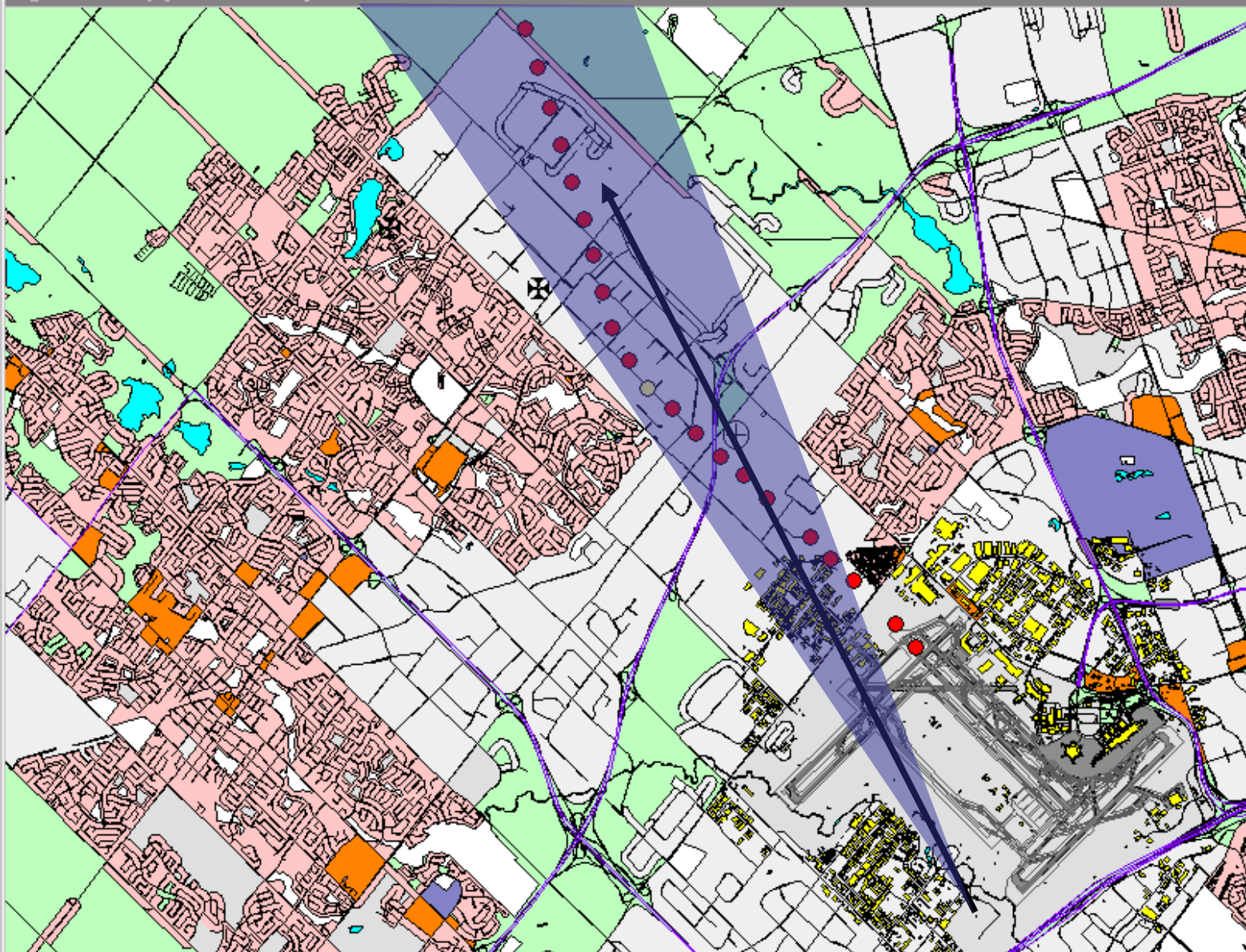
Action 1:	MESSAGE (MACHINE)	Date/Time:	12/27/01 10:38	By:	JB	Note:	DIS WINDS
Action 2:	NONE	Date/Time:	01/01/90 00:00	By:	UNK.	Note:	NONE
Action 3:	NONE	Date/Time:	01/01/90 00:00	By:	UNK.	Note:	NONE
Action 4:	NONE	Date/Time:	01/01/90 00:00	By:	UNK.	Note:	NONE
Action 5:	NONE	Date/Time:	01/01/90 00:00	By:	UNK.	Note:	NONE

Notes: A24R & D33R

☒ Action Finalized 12/27/01 10:37



Flight Track Map [Click to refresh]



Info

Options

- ☐ Show LMax
☐ Show NMT's
☐ Show NMT's Hemisphere

Corridor

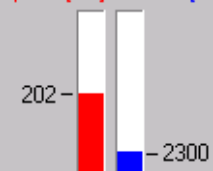
- ☐ Show Corridor or Cylinder

Name Remark ☒ Show track

Edit

Date Time Flight ID Type Operation Runway Origin Destination

Speed [kts] Altitude [Feet]



Interpolate point

Rec. Date: 12/27/01 **Rec. Time:** 07:00 **Salutation:** MR. **First Name:** **Last Name:**
Inc. Date: 12/25/01 **Inc. Time:** 22:07 **Street:** **Unit #:** UNK.
Duration: **Days:** 0 **Hours:** 0 **Total:** 0 **Hours** **City:** BRAMPTON **Province:** ONTARIO **Postal Code:** L6T1T5
Mun. Ward: 63 **Fed. Elect.:** UNKNOWN
Home Tel.: **Bus. Phone:** **Ext.:** UNK.
X-Position: 604739.09025 **Y-Position:** 4841402.02814 **Airport:** UNKNOWN
Operator: JB **Method:** VOICE MAIL
Total Calls: 845 **Last Call:** 12/20/01

Callback Requested: YES
Written Response Requested: NO

Wind Dir.: 250 **Vel.(Kts.):** 12 **Gusts:** UNK.
Ceiling: UNK. **Visibility:** UNK. **Cond.:** UNK.
Temp: UNK. **Humidity:** UNK. **Precip.:** UNK.
Pressure: UNK.

Compl. Comments: WIND? WHAT AIRLINE FORCES ITS EMPLOYEES TO WORK ON CHRISTMAS DAY?
Caller Description: NONE

Source 1: TOO LOW **Nature 1:** QUALITY OF LIFE
Source 2: UNKNOWN **Nature 2:** UNKNOWN
Source 3: UNKNOWN **Nature 3:** UNKNOWN

☒ **Complaint Entered** 01/08/02 14:54

Flight I.D.: DLH471 **Destin.:** EDDF **Max. Noise:** 81 dB **Correlate Noise:**
Aircraft Type: B742 **Origin:** CYZ **At N.M.T. No.:** 11
Operation: DEPARTURE **Corridor:** UNKNOWN **Deviation:** UNK.
Runway: 33R **Airline:** LUFTHANSA GERMAN AIR **Analysis Oper.:** JB **Analysis Completed:** 12/27/01 08:01
3D Distance To Compl. at C.P.A.: 1567 M.
Altitude At C.P.A.: 2300 Ft.
Time at C.P.A.: 22:06:30

Action	Message	Date/Time	By	Note
Action 1:	MESSAGE (MACHINE)	12/27/01 10:38	JB	DIS WINDS
Action 2:	NONE	01/01/90 00:00	UNK.	NONE
Action 3:	NONE	01/01/90 00:00	UNK.	NONE
Action 4:	NONE	01/01/90 00:00	UNK.	NONE
Action 5:	NONE	01/01/90 00:00	UNK.	NONE

Notes: A24R & D33R

☒ **Action Finalized** 12/27/01 10:37



Rec. Date: 03/28/2012 - 11:51
Inc. Date: 03/28/2012 - 11:51

Duration:
Days: Hours: Total:

Operator: CW Method: TELEPHONE, CW

Total Calls: 32 First Call: 12/14/2010

☐ Callback Requested: Last Call: 03/28/2012

☐ Written Response Requested:

Wind Dir.: UNK Vel (kts): UNK Gusts: UNK

Ceiling: UNK Visibility: UNK Cond.: UNK

Temp: UNK Humidity: UNK Precip: UNK

Pressure: UNK

Title: MR. First Name: Last Name:

Street: MISSISSAUGA Province: ON L4X 1T3

Home Tel: Business Phone: ext.:

X Position: 614236.63842 Y Position: 4831345.23868

Caller Description:

Complaints Comments: OBJECT TO NIGHT FLIGHTS. WHY ON THIS OPERATION?

Source 1: RUNWAY 33L ARRIVAL Nature 1: QUALITY OF LIFE

Source 2: UNKNOWN Nature 2: UNKNOWN

Source 3: UNKNOWN Nature 3: UNKNOWN

☒ Complaint Entered 03/30/2012 - 15:58

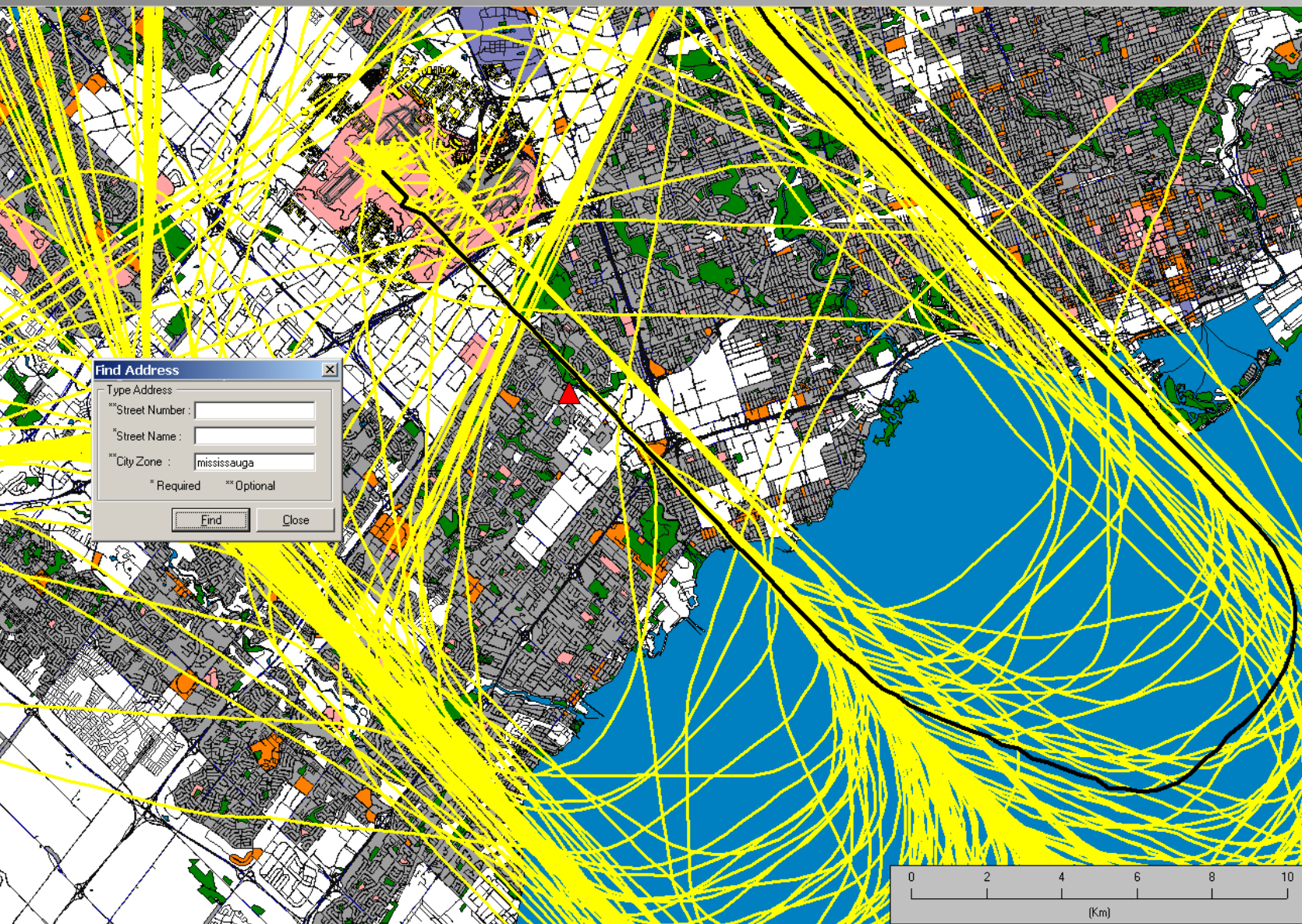
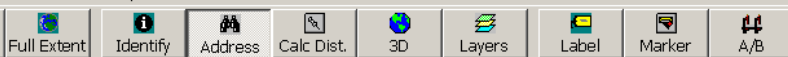
Flight No: Destination: Max Noise: Flight Correlation: 3D Distance To Compl. at C.P.A.:

Aircraft Type: Origin: At NMT No.: UNK Correlate Noise: Altitude At C.P.A.:

Operation: ARRIVAL Corridor: Deviation: UNK Corridors: Time at C.P.A.:

Runway: 33L Airline: UNKNOWN Analysis Operator: CW ☒ Analysis Completed 03/28/2012 - 11:51

Action	Date	Operator	Note	Notes
Action 1	TELEPHONE	03/28/2012 - 11:50	CW	DIS OPERATIONS DUE TO WINDS
Action 2	UNKNOWN	01/01/1990 - 00:00	UNKNOWN	
Action 3	UNKNOWN	01/01/1990 - 00:00	UNKNOWN	
Action 4	UNKNOWN	01/01/1990 - 00:00	UNKNOWN	
Action 5	UNKNOWN	01/01/1990 - 00:00	UNKNOWN	



Find Address

Type Address

***Street Number:

***Street Name:

***City Zone:

* Required *** Optional

Info

Period
20120328 - 20120328

Filtering:
OPERATION = "ARR"
AND RUNWAY LIKE "33*"

Corridor

☐ Show Corridor or Cylinder

Name

Corridor or Cylinder

Remark

☒ All Tracks

☒ Show track

Date

Time

Flight ID

Type

Operation

Runway

Origin

Destination

Selected Gate

☐ Show Gate(s)

Name

Continous Decent

X1 (KM): X2 (KM):

Level-pts: Velo-pts:

Max Limit: Min Limit:

Velocity: ☒

Slope: 2.08° Track: ☒

Other Sources for Information

- Tower log data/reports
- Computerized Operational Data Entry System (CODES)
- Daily Executive Overview Reports/emails
- Maintenance run-up approval forms
- Weather data



Responding to Complaints

- **Contact complainants requesting a response within two business days**
 - Some complaints that require more investigation may require a bit more time
 - Follow-up, typically by phone
- **Information shared:**
 - General flight information (operation; runway; aircraft type and altitude)
 - Confirmation flight followed standard noise abatement procedures
 - Noise information (if applicable/available)
 - FAQs are also a good source of information
- **Information not shared:**
 - Air Carrier/flight number

Registering a Complaint

- Complaints are registered in the noise complaint database
- The database stores a file on each complaint and complainant for future tracking and reporting



Complaint Criteria - Restrictions

- Complainants can only register a complaint for themselves
- All noise complaints must be reported by the 15th day of the following month to be registered
- Threats, offensive, abusive or profane language may result in the complaint not being accepted
- Two Hour Rule
 - Multiple complaints are registered as a single complaint when they are:
 - From one complainant
 - Received during a 2-hour period
 - Against the same operation (e.g. arrivals on Runway 33L)
 - Tracked as a multi-complaint
 - Trends are not impacted by the 2 hour rule

Two Hour Rule - Breakdown

	Total Reported Complaints	How many were multis	Breakdown multis into 1:1	Total Complaints 1:1
2011	793	60 (17 complainants)	143	936
2012 (Jan-Apr)	575	174 (12 complainants)	541	1116

Toronto and Other Airport Practices - 2011

- **Toronto**

- 423,891 movements; 793 complaints; 275 callers
- Complaint registration: 1/person/2hrs (same operation)

- **Montreal**

- 227,848 movements; 799 complaints; 271 callers
- Complaint registration: 1/person/day

- **Vancouver**

- 296,000 movements; 787 complaints; 321 callers
- Complaint registration: 1/person/call
 - 1 call may note multiple incidents, registered as 1 complaint


- **Denver**

- 634,780 movements; 2,293 complaints; 52 callers
- Complaint registration: 1/person/call
 - 1 call may note multiple incidents, registered as 1 complaint

Enforcement

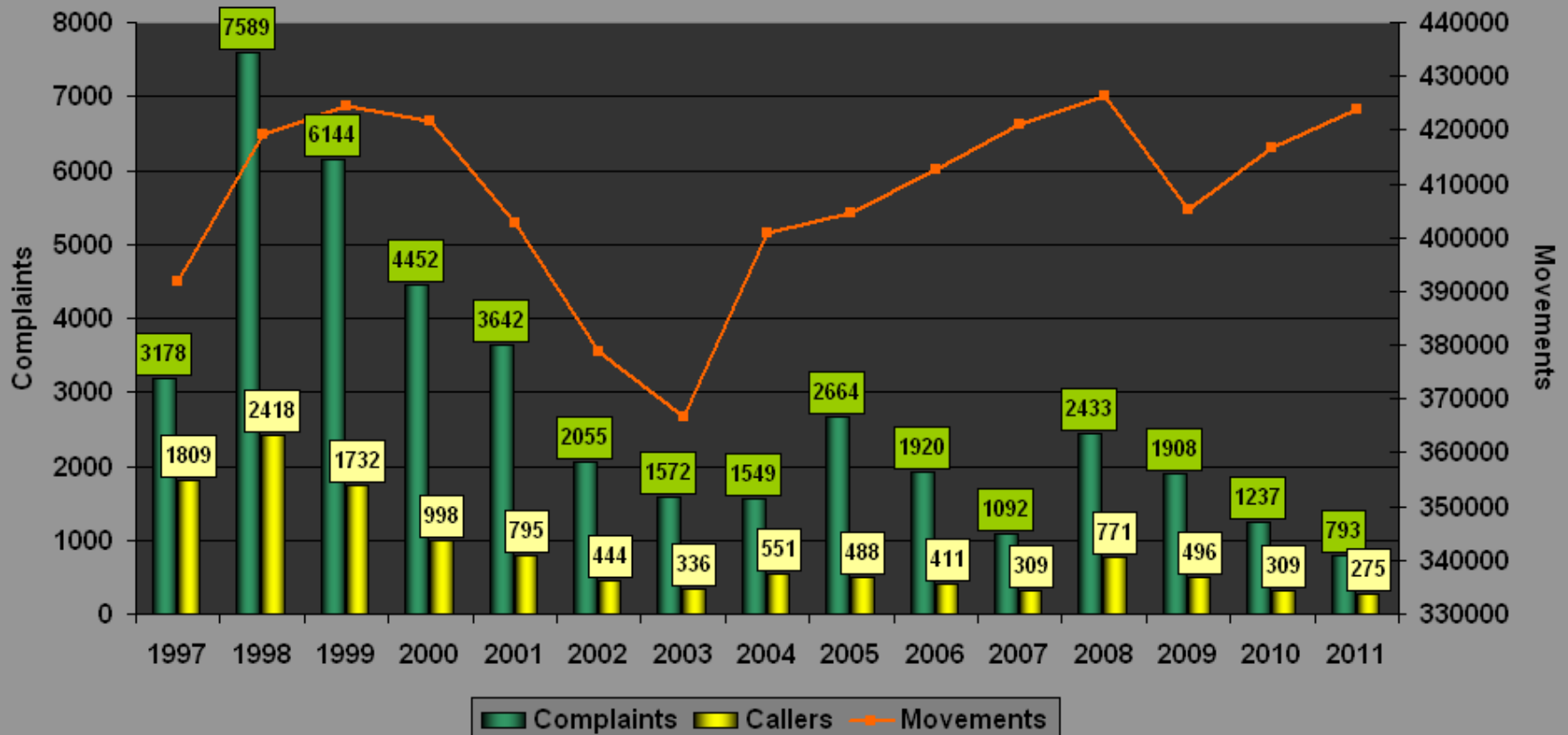
- If analysis suggests noise abatement procedures were not followed, details are forwarded to the Enforcement Office for further investigation
- Enforcement Office monitors compliance of:
 - Noise Abatement Procedures (NAPs)
 - departure procedures
 - arrival procedures
 - Noise Operating Restrictions
- Potential violations are then reported to Transport Canada for further investigation and possible enforcement
 - Transport Canada/Civil Aviation Enforcement has the sole authority to assess punitive action

Complaint Reporting

- **Reports are generated on a regular basis**
 - Annual Noise Management Reports
 - **Reports (standard or requested) are provided to:**
 - CENAC
 - Board of Directors
 - Technical Noise Committee
 - Elected officials
 - Public
- 

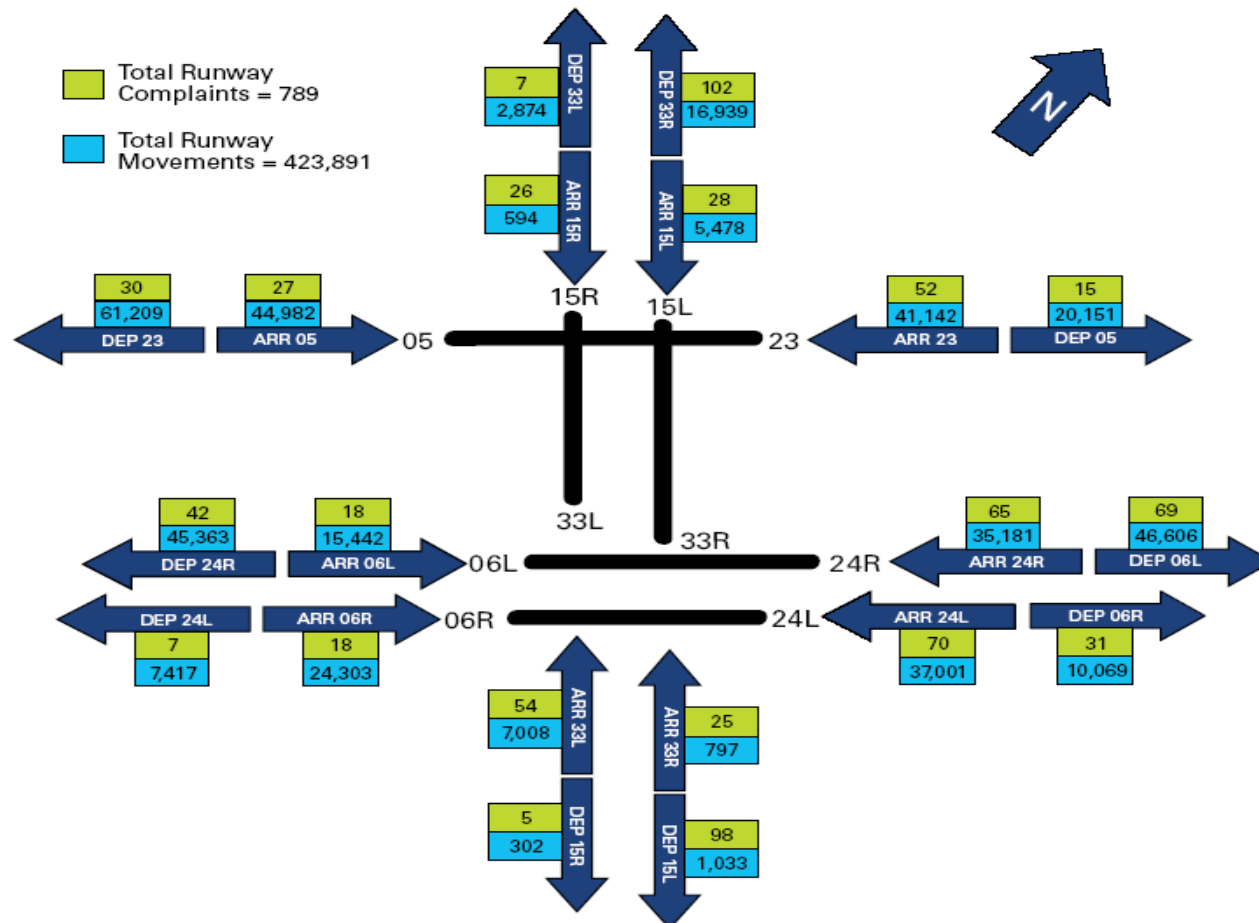
Tracking & Reporting

Complaints, Callers & Movements



Tracking & Reporting - 2011

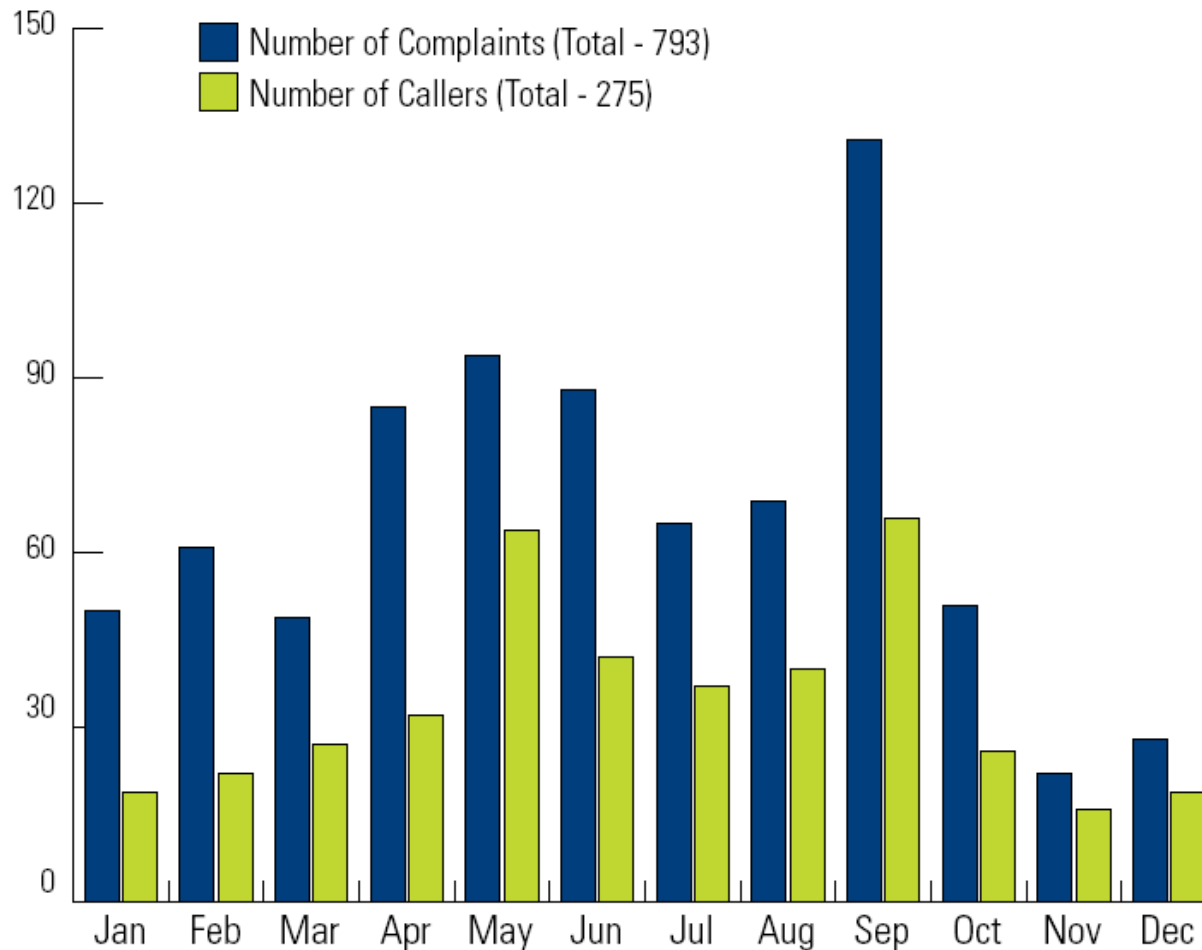
Comparison of Noise Complaints by Runway Operation



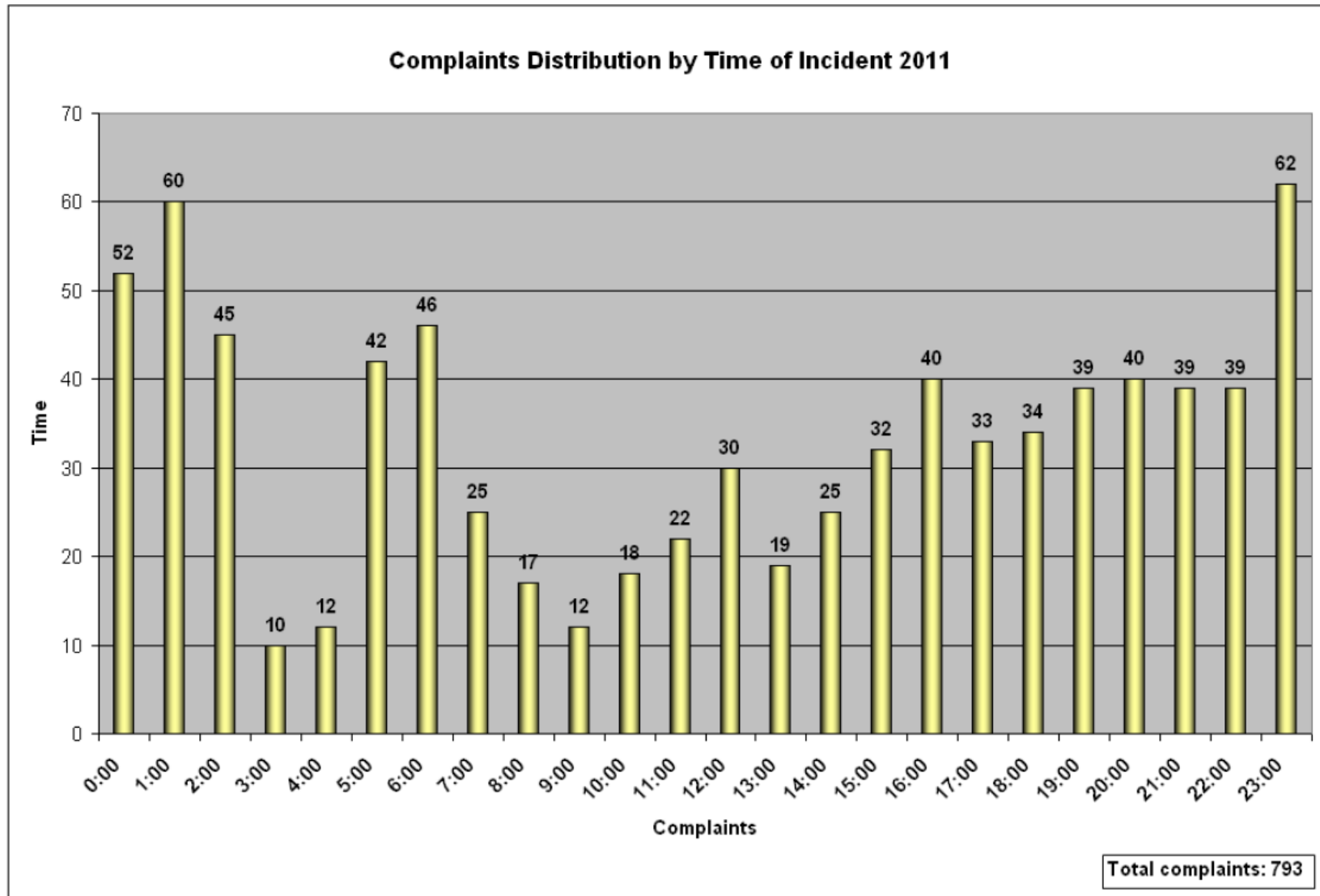
Non Runway Complaints: 1 overshoot, 2 flight checks and 1 helicopter.

Tracking & Reporting - 2011

Monthly Comparison of Noise Complaints and Callers



Tracking & Reporting - 2011

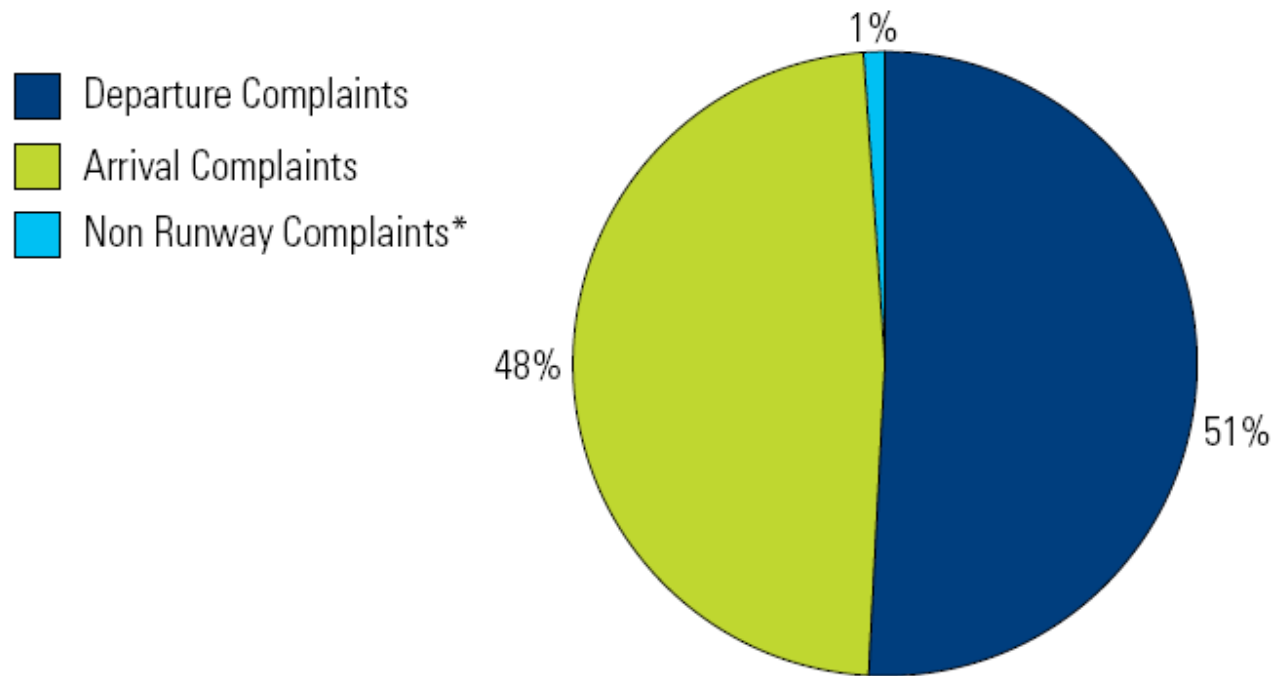


Tracking & Reporting - 2011

- **Complaint breakdown for 2011:**
 - Daytime Complaints (06:30 to 00:29 am)
 - Total Complaints = 583
 - Total Callers = 211
 - Nighttime Complaints (00:30 to 06:29 am)
 - Total Complaints = 210
 - Total Callers = 100

Tracking & Reporting - 2011

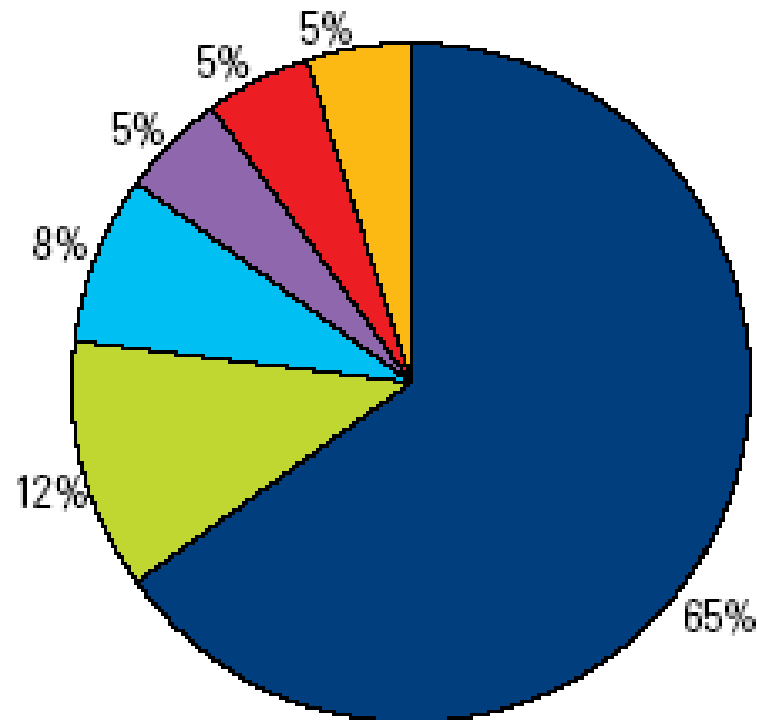
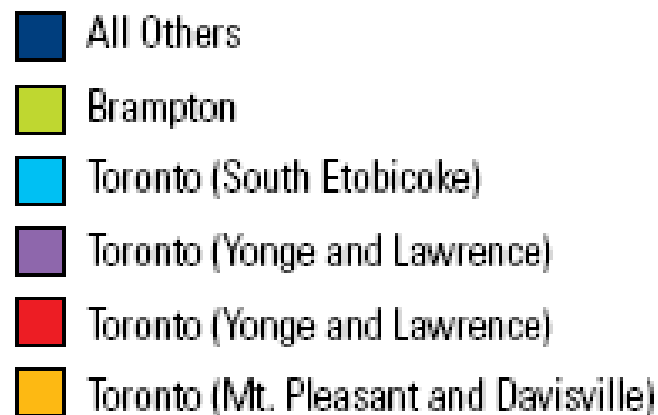
Noise Complaints by Operation



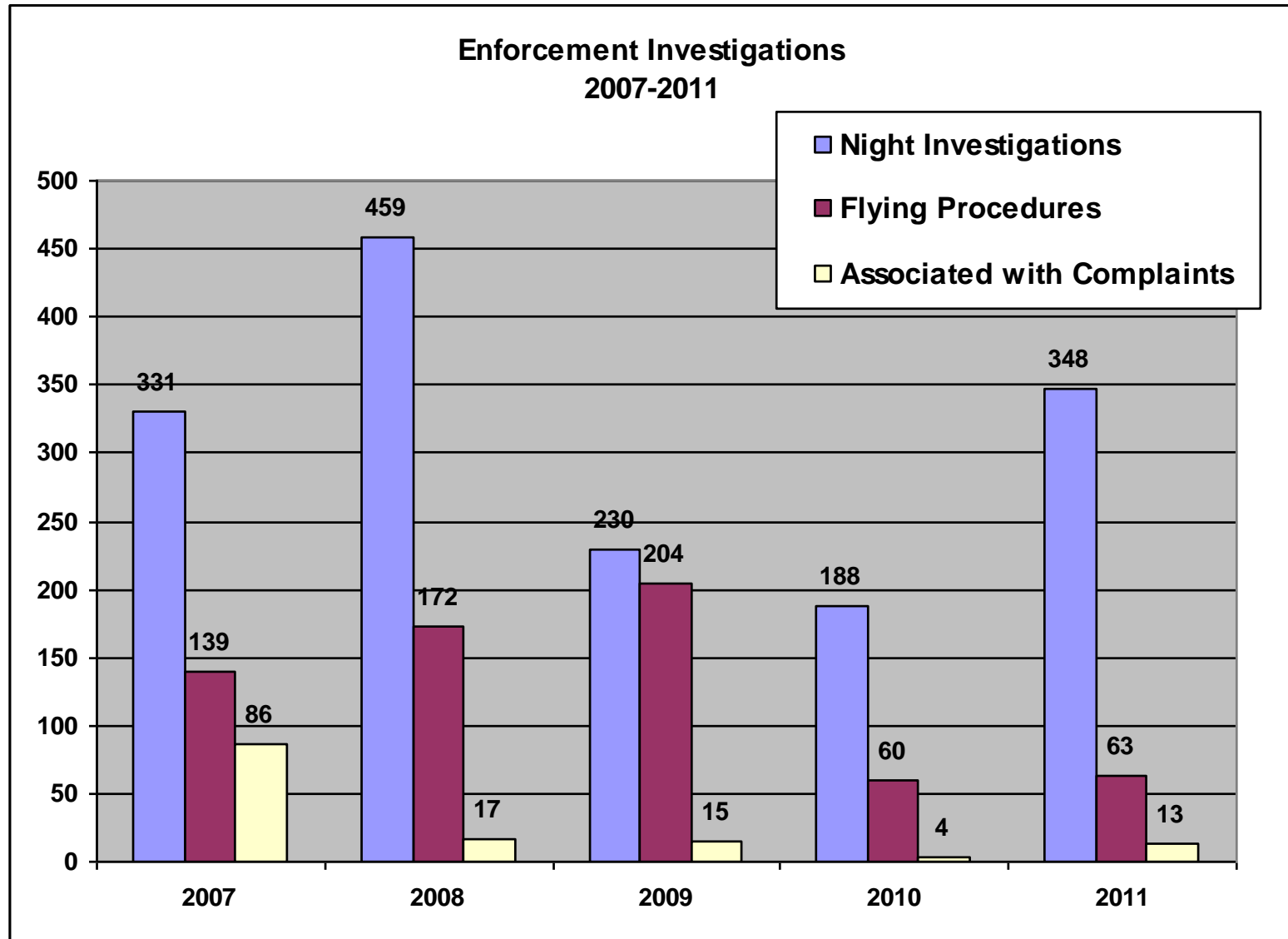
*Non Runway Operations include flight checks, maintenance run-ups, helicopter operations, overshoots and unknown sources.

Tracking & Reporting - 2011

Top Five Callers vs. All Other Callers



Aviation Enforcement Investigations



Trials & Reporting

- **Early Jet Turn - North/South Runways Trial**
 - March 2008 to April 2012
 - 20% (1,982) of eligible aircraft conducted an early turn
 - Six related noise complaints in four years
- **Propeller Aircraft Turn - Extended Hours Trial**
 - March 2008 to April 2012
 - Hours of 06:30 to 06:59 am
 - 93% (2,454) of props conducted early turns
 - Hours of 11:01 to 11:30 pm
 - 85% (3,317) of props conducted early turns
 - 72 related noise complaints in four years

WHAT'S NEXT?

Airport Noise & Operations Monitoring System

- **New Airport Noise & Operations Monitoring System (ANOMS) – Late 2012**
 - Community information and awareness
 - WebTrak - online community access to flight track information and historical data
 - Animated replay of flight tracks enabling investigation of aircraft noise disturbances
 - Advanced statistical reporting capabilities
 - 17 community Noise Monitoring Terminals



Thank You