MEETING Q4, 2021

AIRPORT COMMUNITY CONSULTATIVE COMMITTEE

Oct 14 | 2021

YYC CALGARY AIRPORT AUTHORITY

In the spirit of respect, reciprocity and truth, we honour our ancestors and those who took care of this land long before we were here by acknowledging the Treaty 7 territory of the Blackfoot confederacy.

This includes the SikSika, Kainai, Piikani peoples — as well as the Îyâxe Nakoda, and Tsuut'ina nations. This territory is also home to the Métis Nation of Alberta, Region 3.

We embrace the role of helping to protect the space and foster the growth and development of the peoples – both the Indigenous and non-Indigenous - who live, work, and play on these lands.

YYC CALGARY INTERNATIONAL AIRPORT

Agenda

1. WELCOME & INTRODUCTORY REMARKS
2. STANDING ITEM: REVIEW OF ACTION ITEMS
3. PASSENGER STATISTICS & NOISE PROFILE
4. CROSSWIND RUNWAY USAGE FACT SHEET
5. GUEST SPEAKER: HAWCS
6. JET TURN TRIAL CONSULTATION ROUND-TABLE

Action Items

ID	Action	Accountable Party	Date Established	Current Status
1	Discuss community engagement through community newsletters	YYC & ACCC	2021, Q2	Ongoing
2	Year-over-year helicopter traffic statistics	YYC	2021, Q2	Complete
3	Reporting on previous mobile noise studies	YYC	2021, Q1	On-hold

Safety Moment: Breath!

Relaxation techniques: Breath control helps quell errant stress response

Harvard Health Publishing
HARVARD MEDICAL SCHOOL

July 6, 2020

frontiers in Human Neuroscience

SYSTEMATIC REVIEW
published: 07 September 2018
doi: 10.3389/fnhum.2018.00353

How Breath-Control Can Change Your Life: A Systematic Review on Psycho-Physiological Correlates of Slow Breathing

Andrea Zaccaro[1], *Andrea Piarulli*[1,2], *Marco Laurino*[3], *Erika Garbella*[4], *Danilo Menicucci*[1], *Bruno Neri*[2] *and Angelo Gemignani*[1,5,6]*

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Background: The psycho-physiological changes in brain-body interaction observed in most of meditative and relaxing practices rely on voluntary slowing down of breath frequency. However, the identification of mechanisms linking breath control to its psychophysiological effects is still under debate. This systematic review is aimed at unveiling psychophysiological mechanisms underlying slow breathing techniques (< 10 breaths/minute) and their effects on healthy subjects.

Methods: A systematic search of MEDLINE and SCOPUS databases, using keywords related to both breathing techniques and to their psychophysiological outcomes, focusing on cardio-respiratory and central nervous system, has been conducted. From a pool of 2,461 abstracts only 15 articles met eligibility criteria and were included in the review. The present systematic review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

Results: The main effects of slow breathing techniques cover autonomic and central nervous systems activities as well as the psychological status. Slow breathing techniques promote autonomic changes increasing Heart Rate Variability and Respiratory Sinus Arrhythmia paralleled by Central Nervous System (CNS) activity modifications. EEG studies show an increase in alpha and a decrease in theta power. Anatomically, the only available fMRI study highlights increased activity in cortical (e.g., prefrontal, motor, and parietal cortices) and subcortical (e.g., pons, thalamus, sub-parabrachial nucleus, periaqueductal gray, and hypothalamus) structures. Psychological/behavioral outputs related to the abovementioned changes are increased comfort, relaxation, pleasantness, vigor and alertness, and reduced symptoms of arousal, anxiety, depression, anger, and confusion.

Conclusions: Slow breathing techniques act enhancing autonomic, cerebral and psychological flexibility in a scenario of mutual interactions: we found evidence of links between parasympathetic activity (increased HRV and LF power), CNS activities (increased EEG alpha power and decreased EEG theta power) related to emotional

OPEN ACCESS

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Some Links:

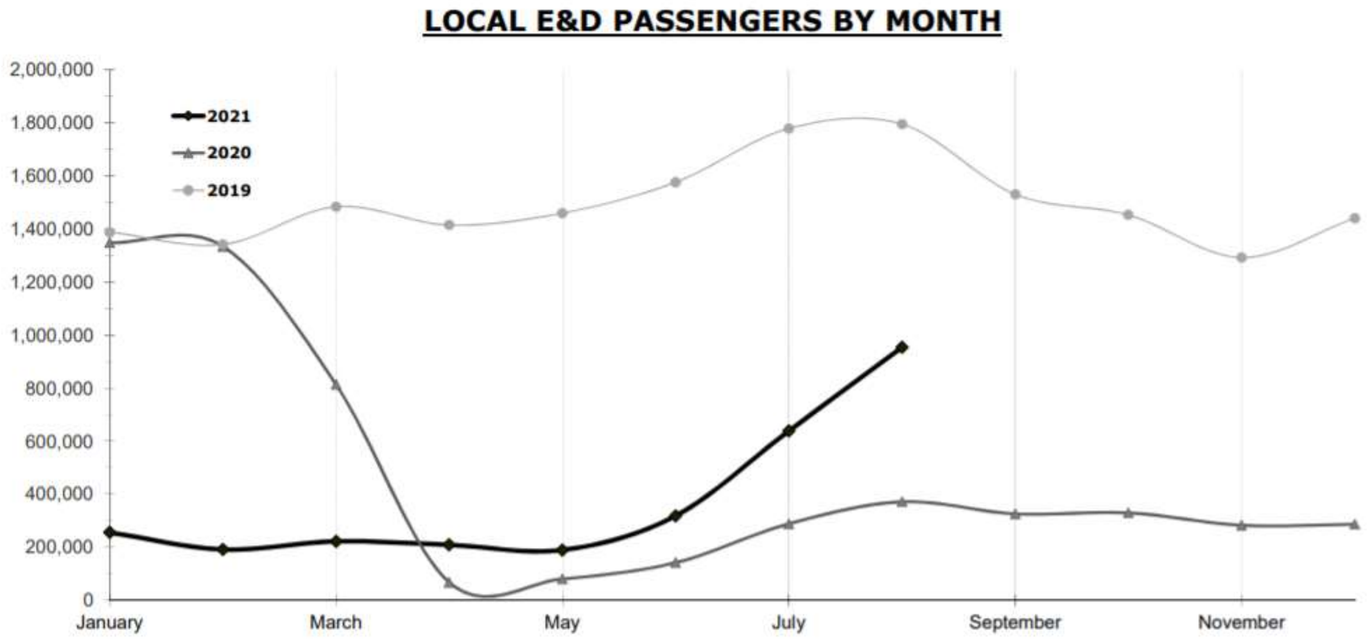
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6137615/pdf/fnhum-12-00353.pdf

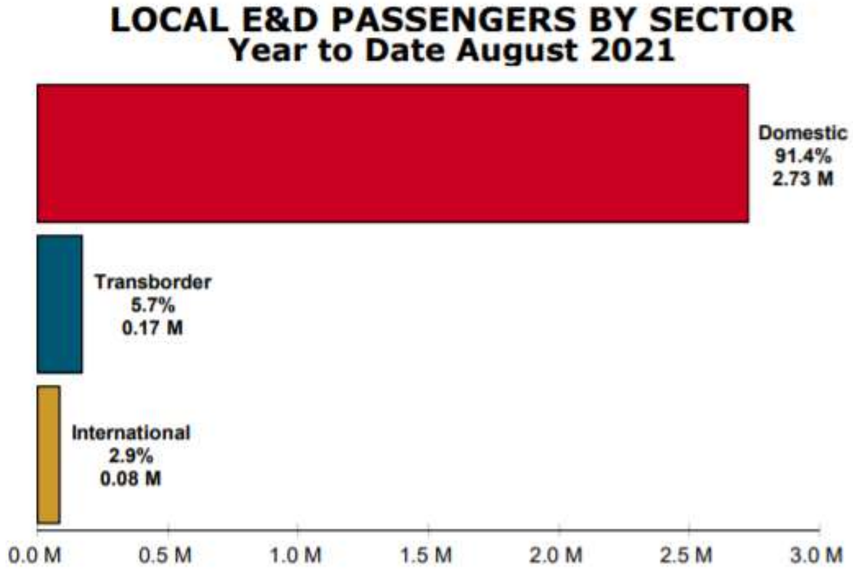
https://www.health.harvard.edu/mind-and-mood/relaxation-techniques-breath-control-helps-quell-errant-stress-response

https://www.healthlinkbc.ca/health-topics/uz2255

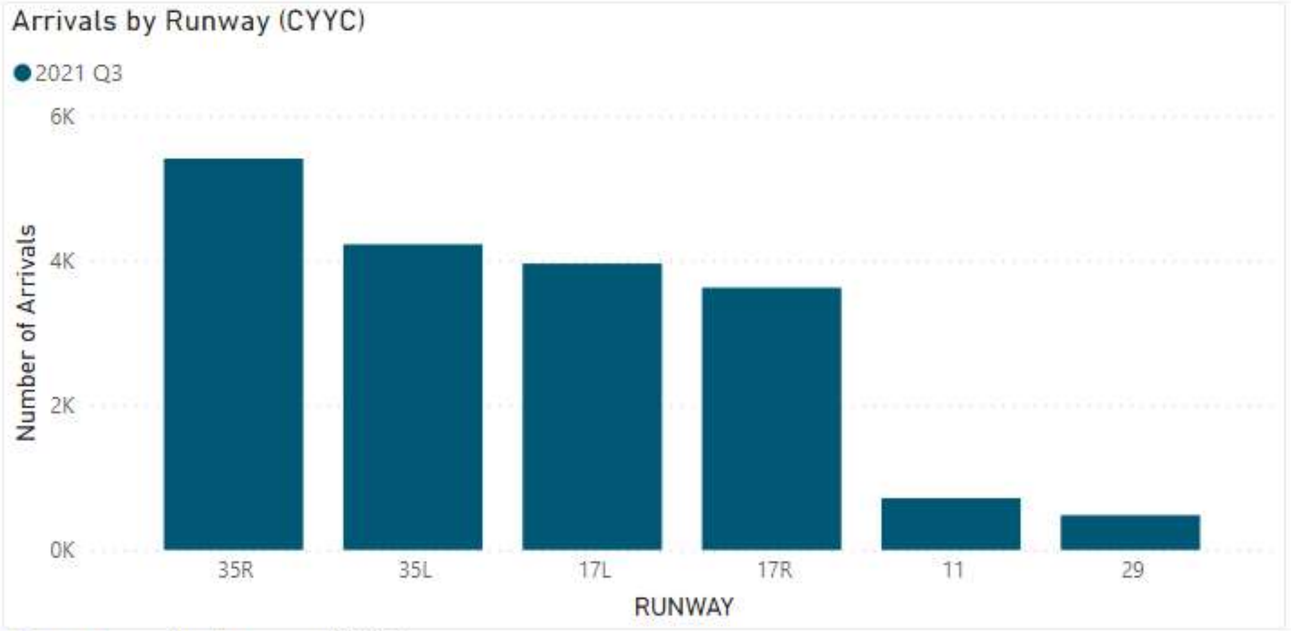
PASSENGER STATISTICS & NOISE PROFILE

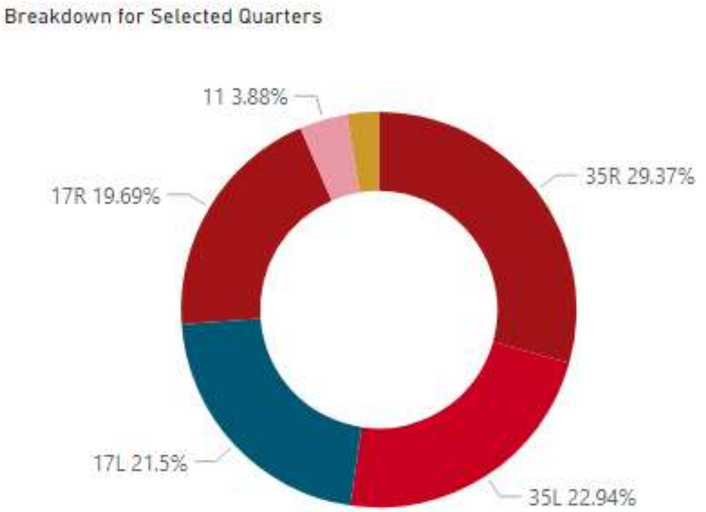
YYC Passenger Statistics

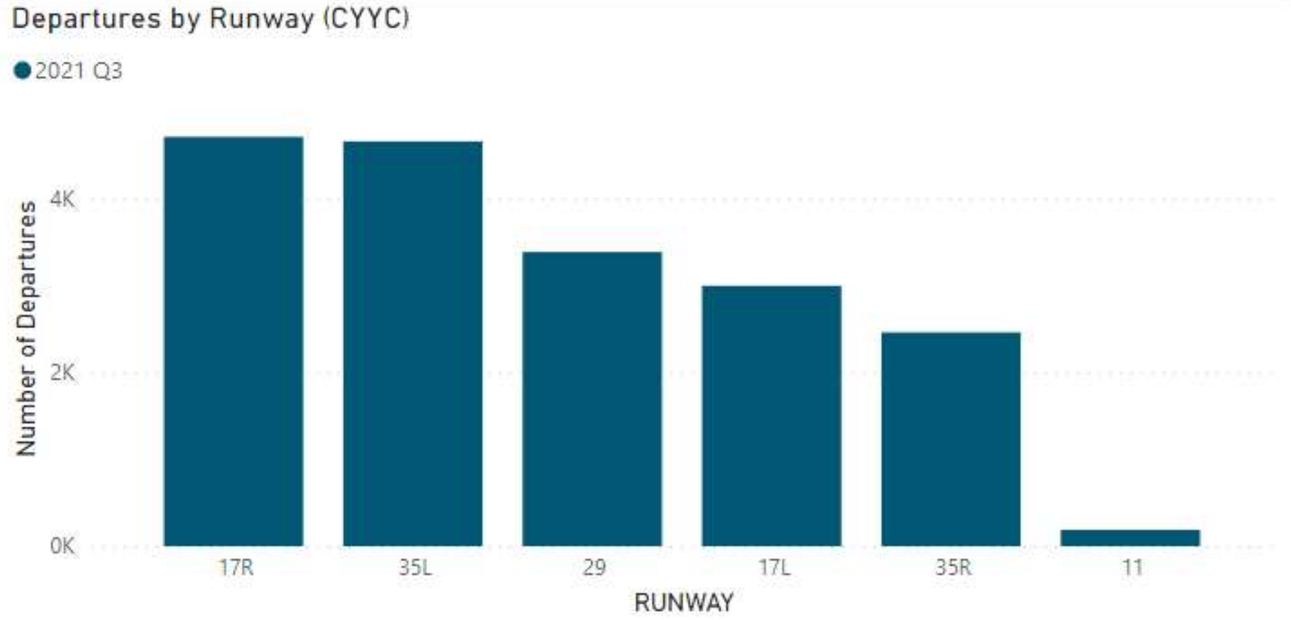


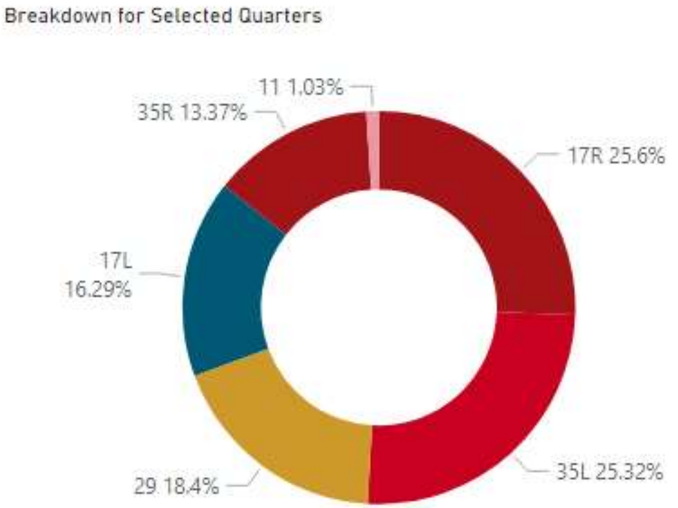


Runway Usage 2021, Q3

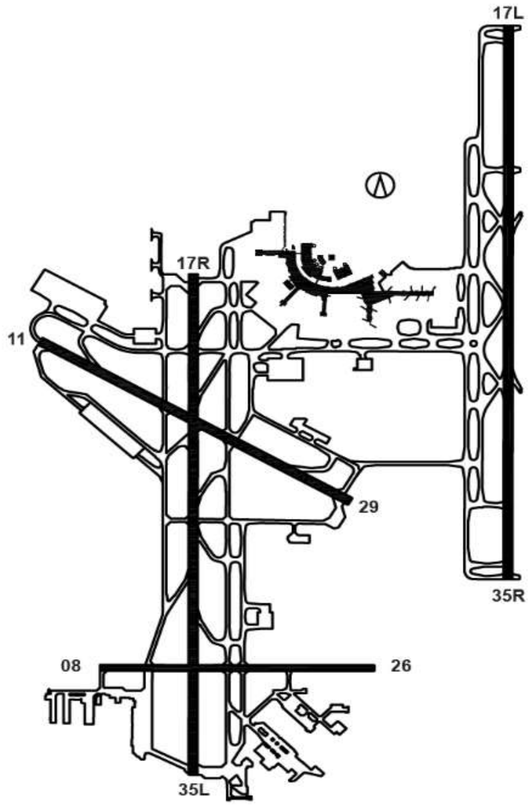


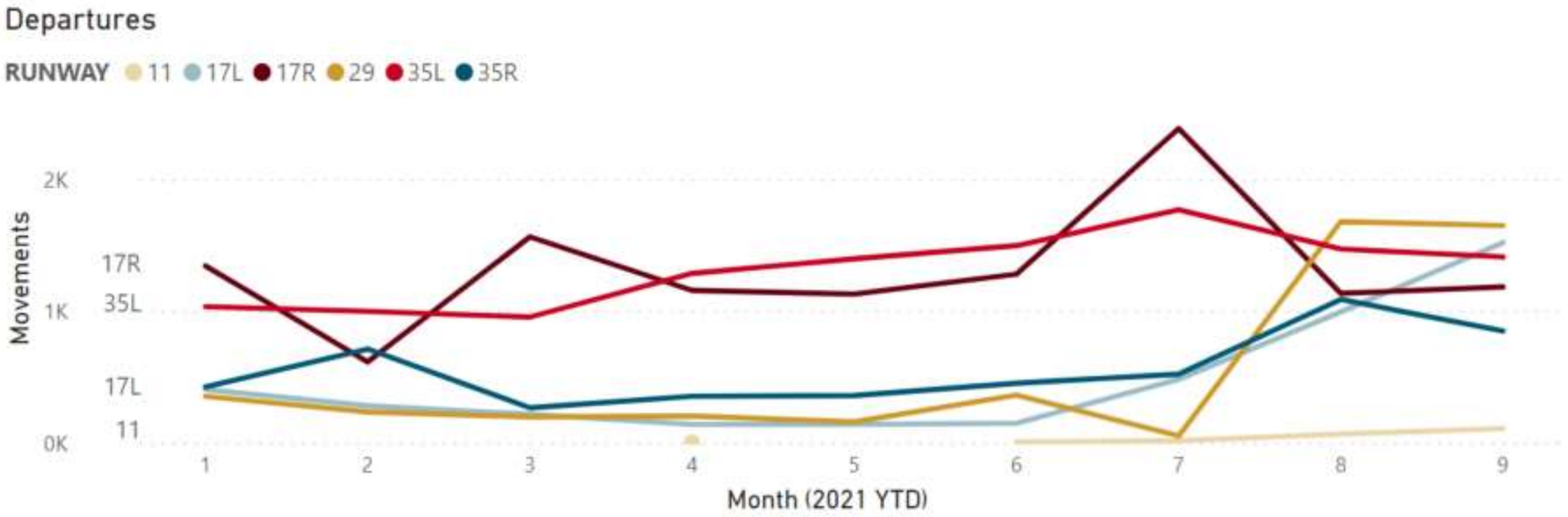


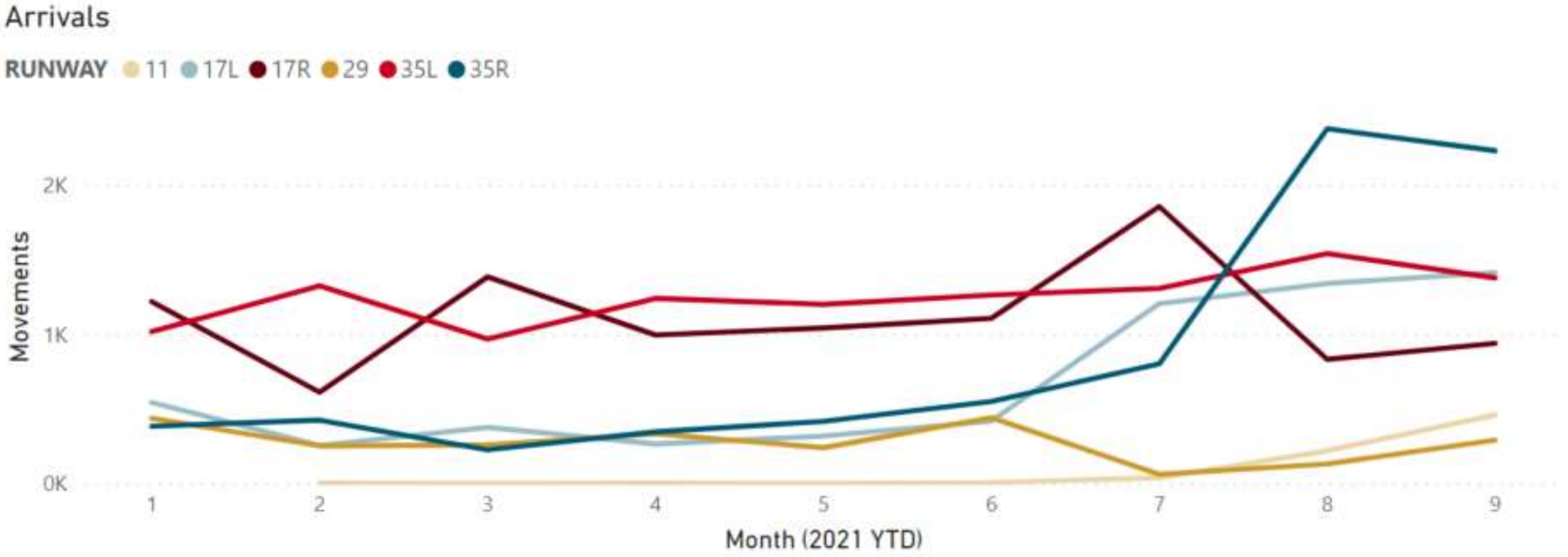




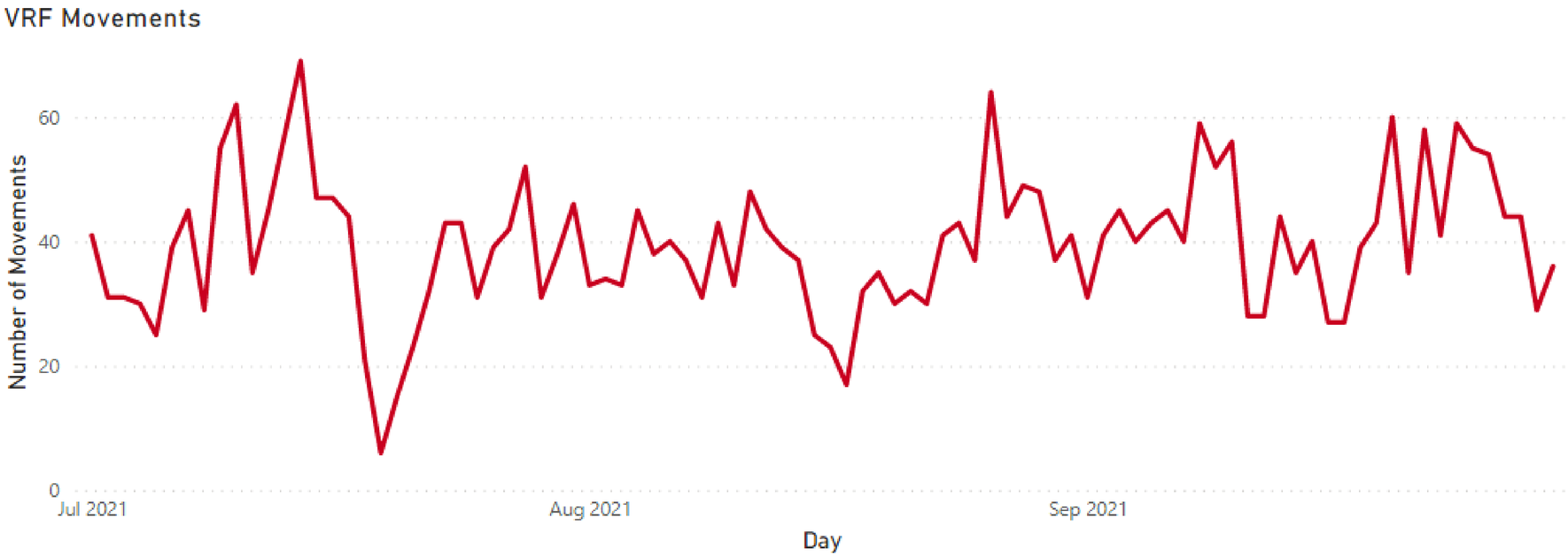
Runway Usage YTD 2021

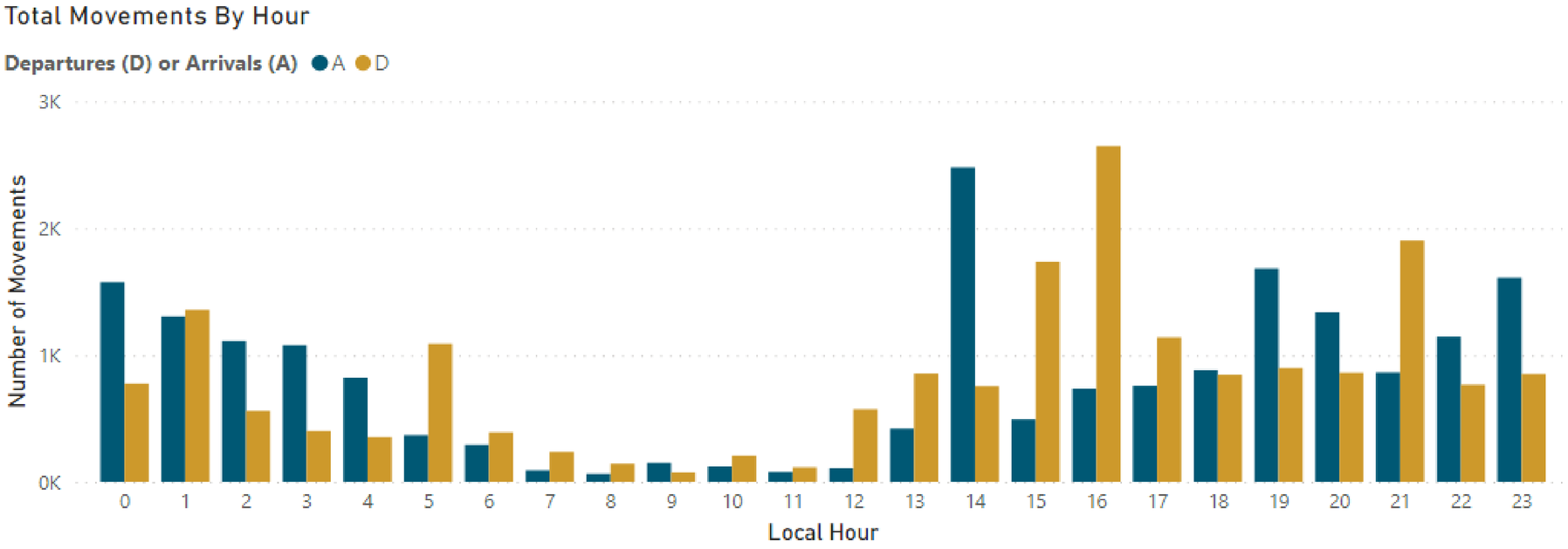






Other Air Traffic Statistics (2021, Q3)

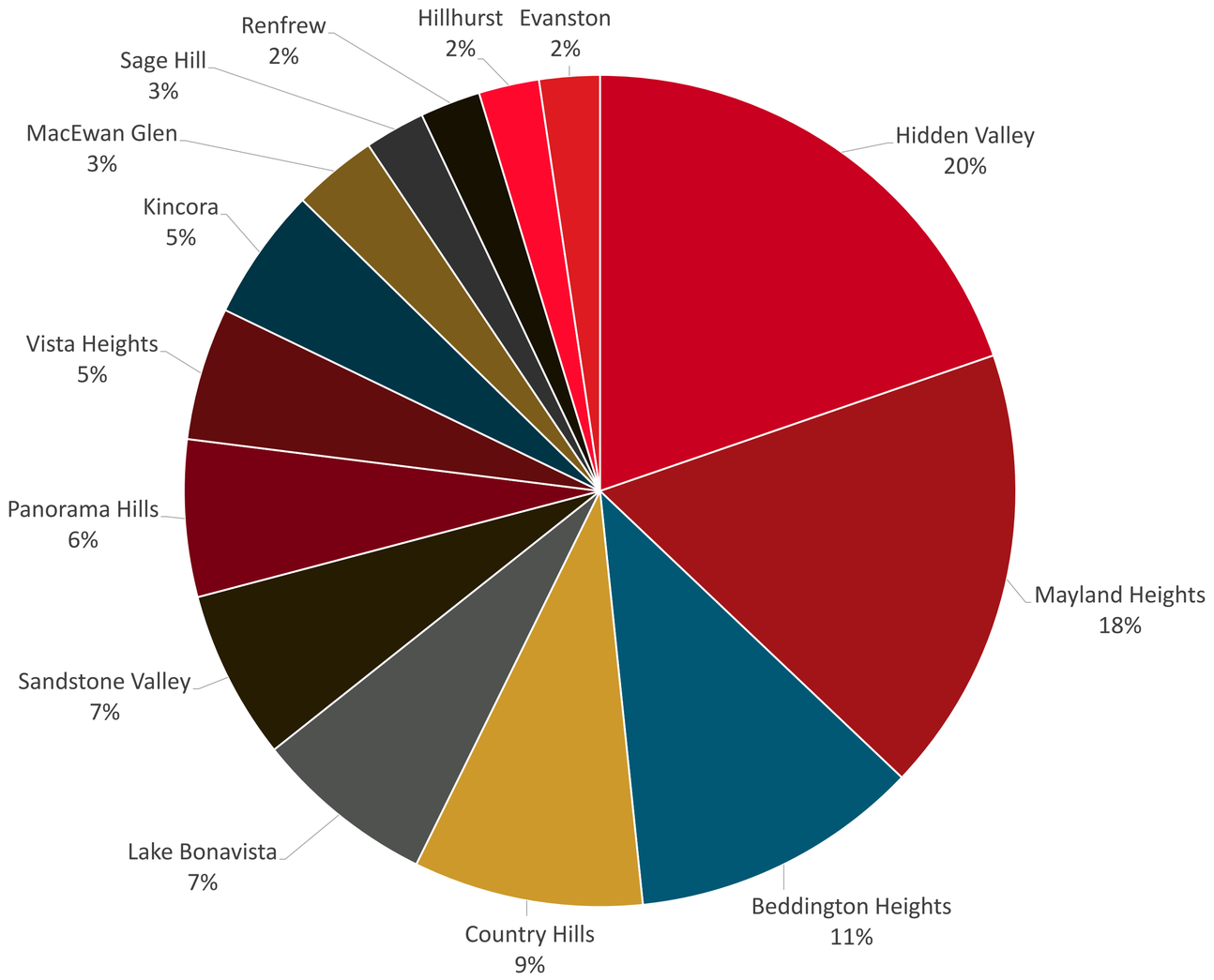




Household Noise Concerns by Community

Communities with > 5 Number of Household Concerns (N = 213)

- Increases in Northwest communities relate to increased use of RWY 29-11.
- Other concerns relate to Jet Turn Departure trial and helicopters.



Crosswind Runway Fact Sheet (West Runway Rehabilitation Project effects on Airspace)

What is happening?

- Initial construction investigation and design work for the west runway.

Why is this happening?

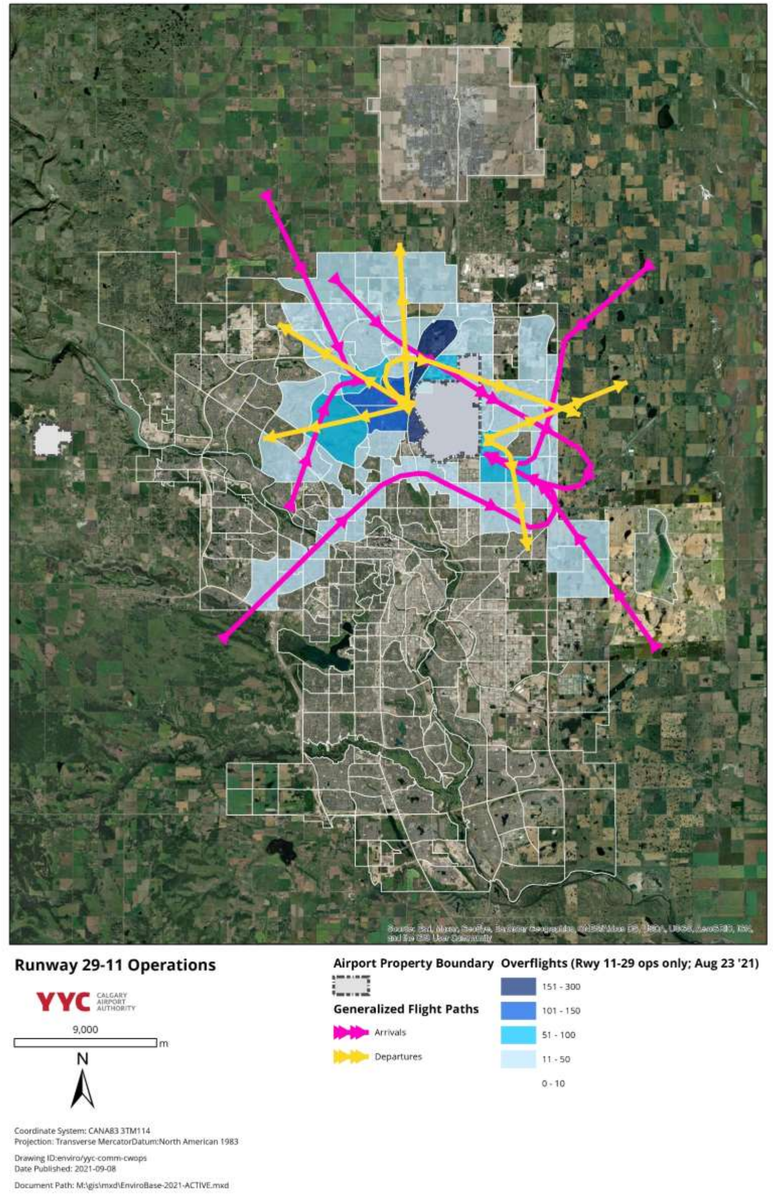
- Runway is reaching the end of its useful life and requires rehabilitation to remain operational.

Why has RWY 29-11 been used more frequently?

- To facilitate construction investigations and design, the west parallel runway was periodically closed, requiring the concurrent use of the crosswind runway and east parallel.

What is being done to address potential aircraft noise and community disturbance concerns?

- Construction schedule is proceeding as quickly as possible.
- Working with partners to evaluate air traffic patterns.
- Proactive communication related to project activities.



Guest Speaker: HAWCS

Sgt. Tanya Paziuk

Calgary Police Service

Air Support Unit: HAWCS

Presentation Topics

- Unit Profile
- Mission / Flight Profile
- Operating Environment
- HAWCS Limitations / Safety Considerations
- YYC International Airport and Air Traffic Issues
- Mission Profile
- Stats and some facts
- Questions

UNIT STAFFING/CREW DETAILS

Hours

- 0700-0400 Scheduled Staffing
- Dayshift 0700-1800
- Nightshift 1700-0400

Crew

- 1 Civilian Pilot flying 1 Sworn TFO
- 4 Full-Time Crews
- 4 Part-Time TFOs
- 1 Part-Time Pilot
- 1 Chief Pilot
- 1 Unit Sgt

MISSION PROFILE

- Optimize public and officer safety
- Detect, reduce and prevent crime
- Crews scheduled for 11-hour shifts
  - Goal is to have at least 5 hours of flying time
- Maximum 8 flying hours.
  - Transport Canada – Fatigue Management Study
  - New duty limit implementation for industry standards
- Street and Special Unit Requests
- Incident Commanders Deploy us

OPERATING ENVIRONMENT

- Flights are usually 2 hours
- Re-fueling can be 30 minutes
- Class C controlled airspace – Air Traffic
- Maintenance schedule – may impact operational coverage

Public and Officer Safety our priority

- HAWCS attends all types of calls.

ASU Historical Stats & Trends

2019

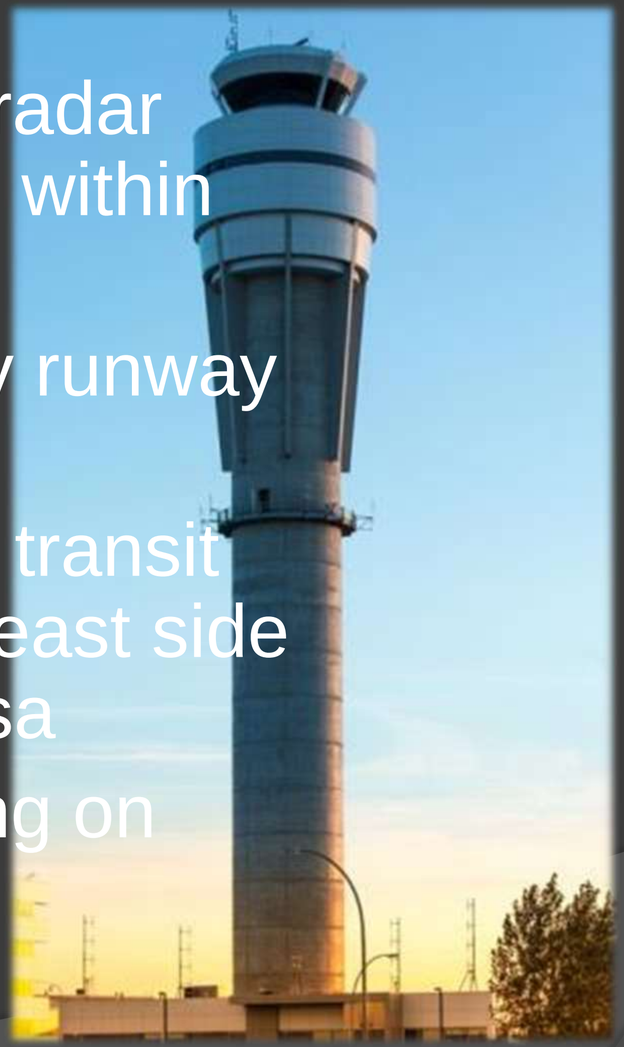
- 2584 Flying hours
- 4121 Calls for service
- 221 Code 600/10-80 events
- 761 HAWC Arrests
- 2366 Charges

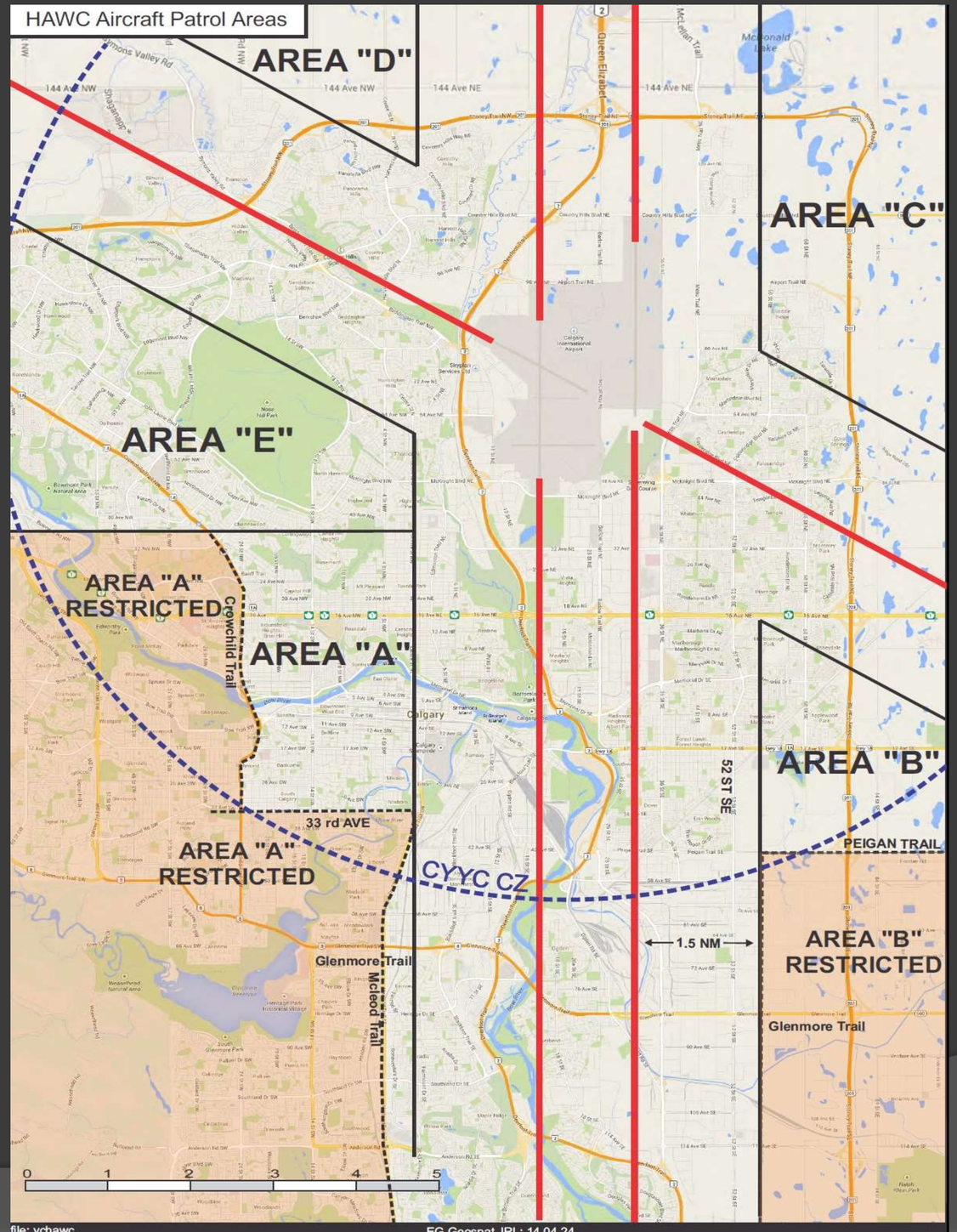
2020

- 2783 Flying hours
- 4617 Calls for service
- 376 Code 600/10-80 events
- 797 HAWC Arrests
- 2736 Charges

YYC AIR TRAFFIC CONTROL (ATC)

- HAWCS is under continual control/radar surveillance of ATC while operating within YYC airspace.
- Must operate 1.5 miles away of any runway approach.
- HAWCS requires ATC clearance to transit through an active runway from the east side of the city to the west side/vice versa
- Can take several minutes depending on volume of air traffic




HAWC Aircraft Patrol Areas
AREA "D"
AREA "C"
AREA "E"
AREA "A" RESTRICTED
AREA "A"
AREA "A" RESTRICTED
AREA "B"
AREA "B" RESTRICTED
CYYC CZ
33 rd AVE
PEIGAN TRAIL
1.5 NM
Glenmore Trail
Crowchild Trail
52 ST SE
Mcleod Trail
Calgary
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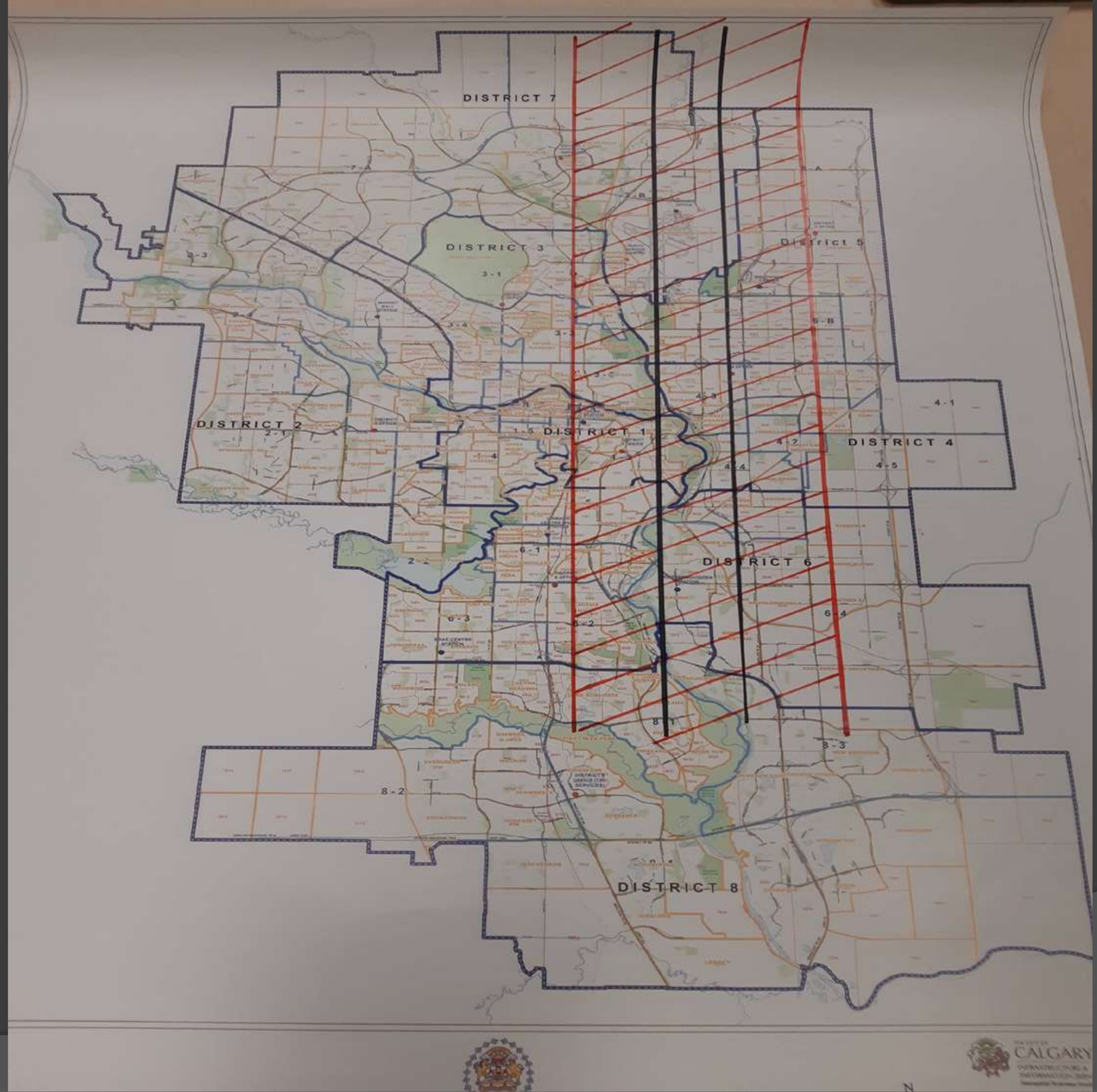

DISTRICT 7
DISTRICT 3
District 5
DISTRICT 2
DISTRICT 1
DISTRICT 4
DISTRICT 6
DISTRICT 8

"HAWCS PRIORITY" ATC STATUS

- Will essentially shut down YYC airport
- Takes ATC approximately 30 minutes to re-route traffic flows to a different runway
- Major financial and scheduling impact to YYC and airlines
- Reserved for "significant or life threatening" events

THERMAL IMAGING FACTS

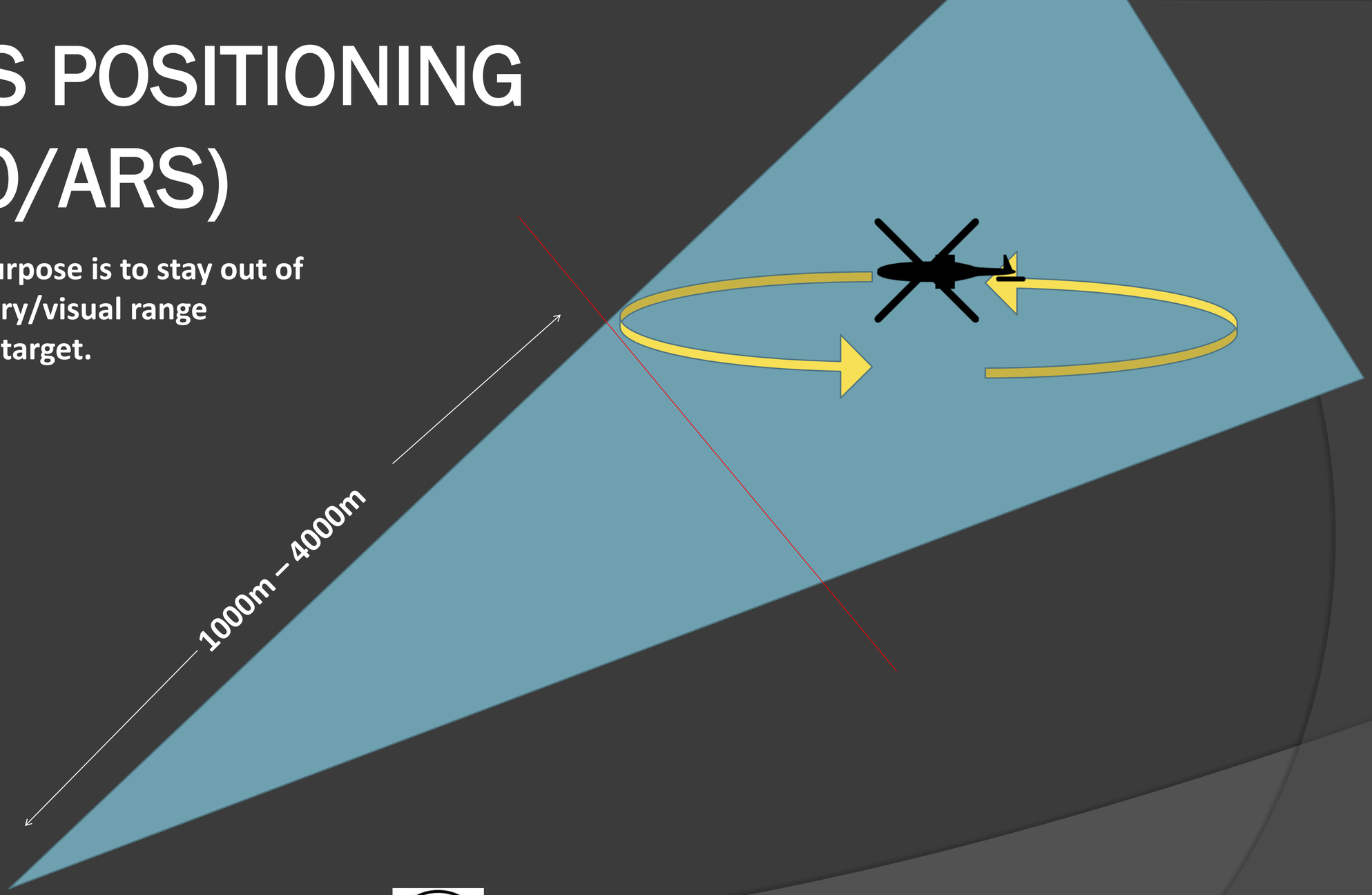
- Cannot see through glass, water, or walls, color and no license plates (at night).
- Will detect heat sources and residual heat.

AUGMENTED REALITY SYSTEM (ARS)

- Serves as a mapping system for airborne applications.
- Provides an augmented reality mapping display.
- Overlays addresses, street names on top of real-time video to increase crew effectiveness.
- School and major institutions floor plans have been added.

HAWCS POSITIONING (MX-10/ARS)

The purpose is to stay out of auditory/visual range of the target.



At the Target's 5:00

Questions or complaints, please contact me – our goal is to work with the community and address any concerns.

- **Sergeant Tanya Paziuk – 403-428-4151**

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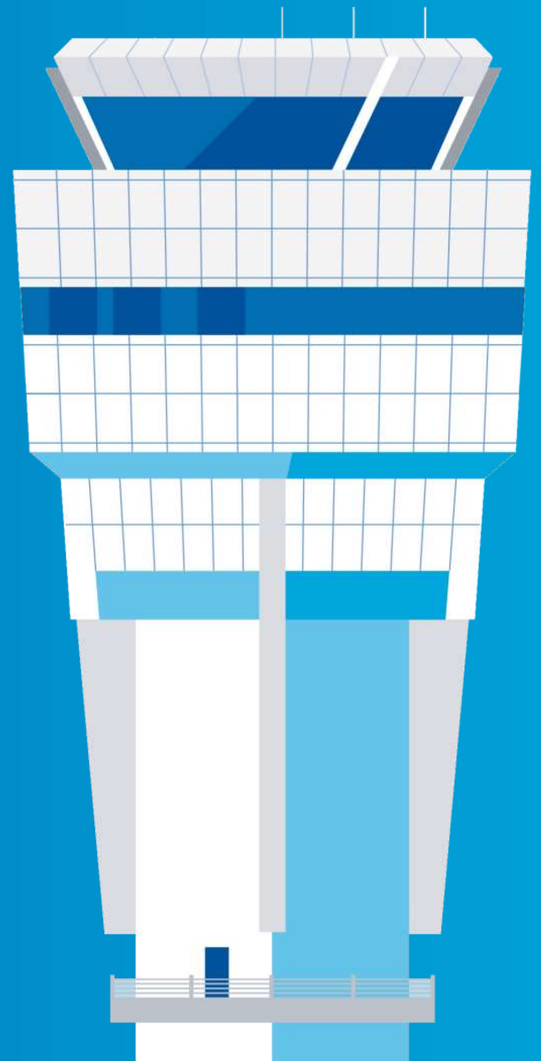
2021-10-13

Calgary Airport Southbound Jet Turn Trial

Greg Konrad – Manager, Calgary Tower and Terminal Operations
Christopher Csatlos – Manager, Stakeholder and Industry Relations



TOPICS

- Refresher on Jet Turn Trial
- Update on Consultation
- Q&A

Refresher on Jet Turn Trial

REFRESHER ON JET TURN TRIAL

Background

- In collaboration with Calgary Airport Authority, NAV CANADA is currently conducting a departure procedure trial that improves runway throughput, responds to airport infrastructure changes, and delivers noise mitigation to communities south of the airport.
- The trial permits jets departing runway 17L or 17R to turn toward the other runway on initial departure.
  - This is similar to the procedure already in place for aircraft departing to the north using runway 35L or 35R.
  - Intended as a one-year trial but extended due traffic levels during the pandemic.

REFRESHER ON JET TURN TRIAL

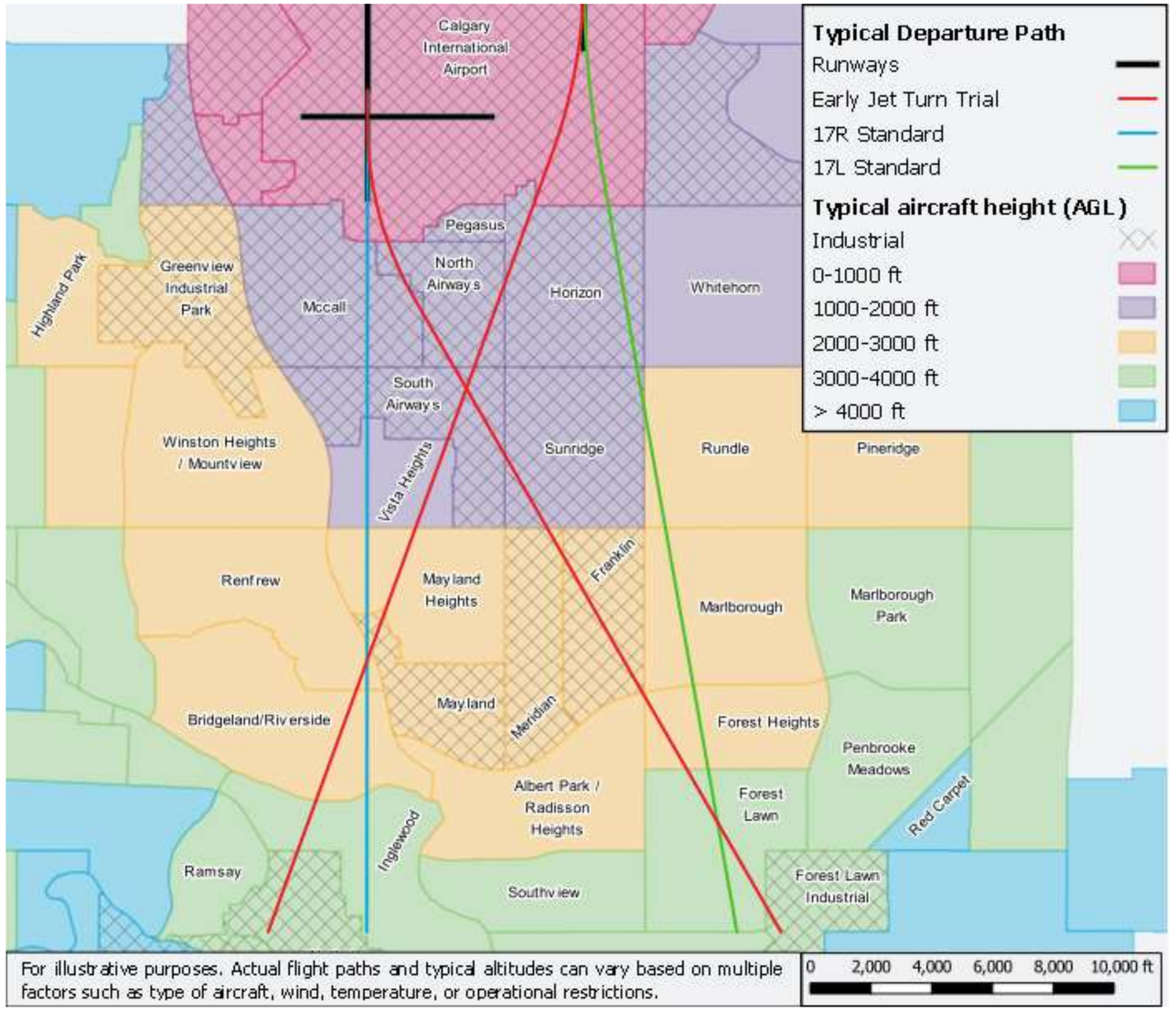
Benefits

- Increased balancing of noise for communities south of the airport.
- 17R departures more likely to overfly non-residential land at lowest altitudes.
- 17L departures more likely to be higher when they reach residentially populated areas.
- Reduced track mileage and greenhouse gas emissions as a result of reduced taxiing and more direct routing in the air.
- Reduced taxi times and reduced complexity in moving aircraft on the ground (including associated fuel burn).

JET TURN REFRESHER

Anticipated Flight Tracks

- Red lines show anticipated paths from each runway
- The colour of each neighbourhood indicates approximate height above ground for aircraft (during an example 36 hour period)
- Hatched areas are designated, “Industrial” by the City of Calgary



Update on Consultation

UPDATE ON CONSULTATION

- Initial briefing provided to the airport's community consultative committee (ACCC) on September 18, 2019.
- Public notice was published on YYC website and shared with email distribution list.
- Commitment to updating the ACCC on performance of the trial at scheduled meetings.
- Further public engagement/consultation will be in coordination with the Airport Authority.

CONSULTATION PHASES

December 2021

- Advanced briefing to elected officials
- Other Pre-Consultation Briefings
- Material Prep

January 2022

- Minimum 45 days
- Online Consultation Events
- Feedback Survey

March 2022

- Consultation Report
- Briefings to ACCC on results

April/May 2022

- Implementation Planning
- 180-day post-implementation Community Impact Assessment in Fall 2022

CONSULTATION MATERIALS/COMPONENTS

- Web
  - NAV CANADA Corporate Website
    - High level info and maps
    - FAQ
    - Info on local meeting schedules
    - Copy of official notices
  - YYC AA Website
    - Copies of notices and links to NAV CANADA website to obtain more information
- Feedback Mechanisms
  - Survey
- Official Notices
  - NAV CANADA Website
- Online event hosted by NAV CANADA
  - If resident cannot attend, recording of the presentation will be made available via NAV CANADA website

FEEDBACK SURVEY – SAMPLE QUESTIONS

- “Have your reviewed the notice materials related to the Alternate Heading Initiative?”
- “Is the current level of aircraft noise a concern to you?”
  - “If yes, what do your current concerns relate to?”
- “Do you support the concept of greater traffic distribution if it means some areas see more aircraft and others see less?”
- “Have you observed a change in aircraft overflight since the trial commenced?”
- “Having reviewed the material, what do you think are the advantages of alternate headings?”
- “Having reviewed the material, what do you think are the disadvantages of alternate headings?”

POST-CONSULTATION AND IMPLEMENTATION

- A post-consultation report detailing information and feedback obtained during the consultation period will be prepared by NAV CANADA
- Implementation will be subject to the outcome of consultations and scheduled accordingly
- An assessment of the change will be made by NAV CANADA and the Calgary Airport Authority following 180 days from implementation
- The 180-day review will be shared with the ACCC and published on NAV CANADA’s website.

Q & A

FEEDBACK SURVEY – ACCC INPUT

- What other potential questions do residents think should be asked as part of the initiative?
- Are there particular questions you feel would add more value to the consultation effort?
- Are there suggested methods to get the word out considering it is a targeted consultation?

THANK YOU

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MEMBER Q/A