MEETING Q2, 2022

AIRPORT COMMUNITY CONSULTATIVE COMMITTEE (ACCC)

April 21 | 2022

YYC CALGARY AIRPORT AUTHORITY | L'ADMINISTRATION AÉROPORTUAIRE DE CALGARY

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
2. YYC UPDATE
3. JET TURN TRIAL UPDATE
4. EAST MAYLAND HEIGHTS NOISE
5. AIRCRAFT TRAFFIC DASHBOARD
6. ACTION ITEMS REVIEW
7. ROUND TABLE

SAFETY MOMENT

SPRING CLEAN-UP

Airport lands sweeping program takes place throughout the months of April and May. This year, warmer weather started in March.

As warmer weather starts, motorists, pedestrians and cyclists' speeds tend to increase.

Spring in Calgary can be unpredictable. Watch for gravel, ice and pooling water.

YYC UPDATE

Strategic Overview

Develop Our People

Deliver a Remarkable Guest Experience

Drive Value to Airline Partners

Diversify and Grow Our Revenue Streams

Build On a Strong Foundation

Economic Impact

$8B *Generated by YYC toward the city and regions' GDP**

$125M *Paid in property taxes to the City of Calgary between 2014 and 2021*

$239.4M *Paid in federal rent between 2014 and 2019*

5,363 *Cargo landings in 2021 (12% increase from 2020)*

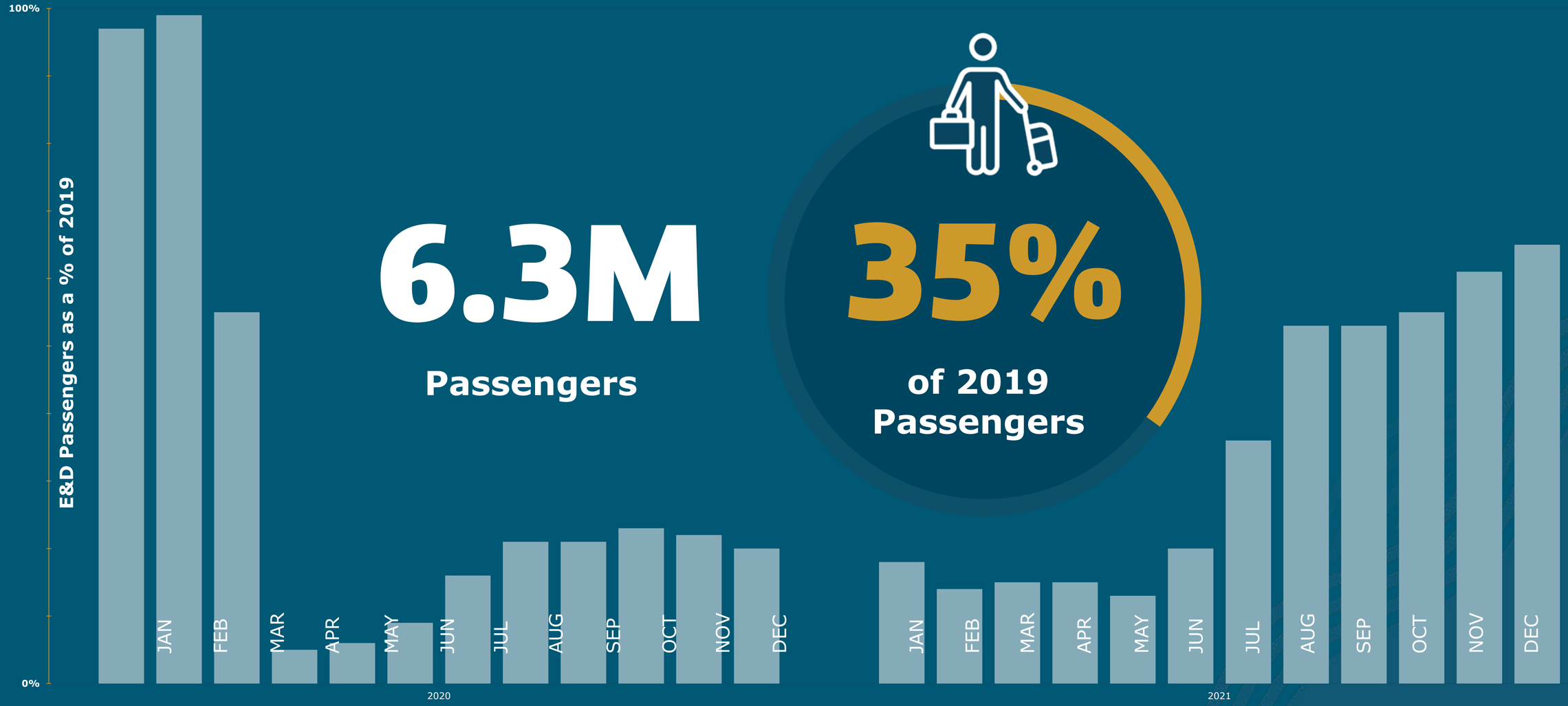
Top 70 *Recognized as one of Alberta's Top 70 Employers in 2021 for the 13th time*

50K *Jobs in the Calgary region tied to YYC**

24K+ *People employed on YYC campus**

***Pre-pandemic**

PASSENGERS | 2021



6.3M

Passengers

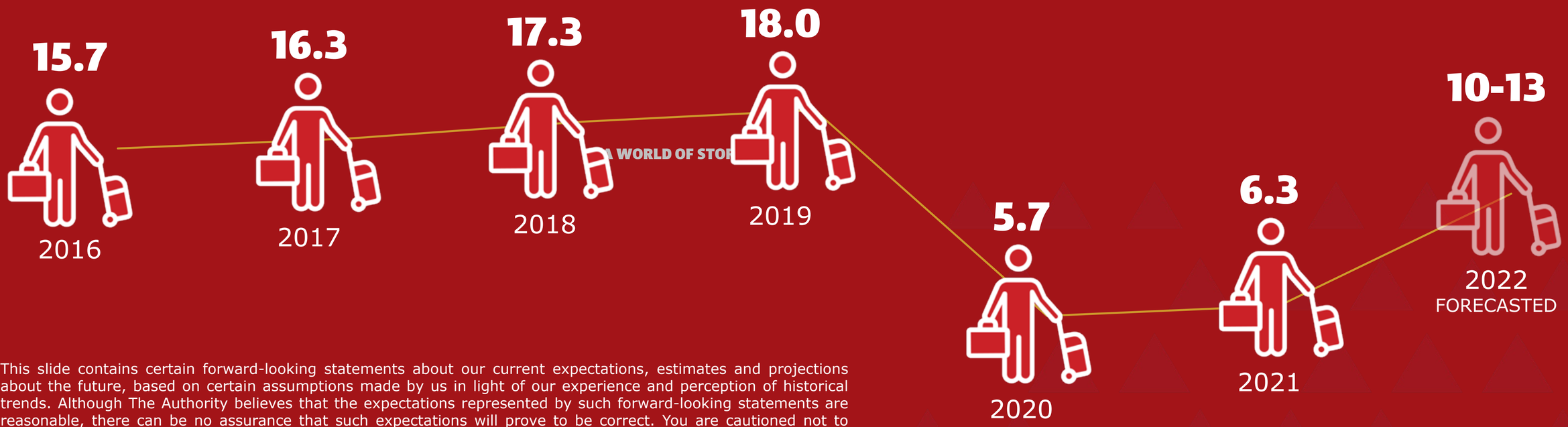
35%

of 2019 Passengers

YYC CALGARY AIRPORT AUTHORITY

PASSENGER FORECAST

IN MILLIONS



This slide contains certain forward-looking statements about our current expectations, estimates and projections about the future, based on certain assumptions made by us in light of our experience and perception of historical trends. Although The Authority believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. You are cautioned not to place undue reliance on forward-looking statements as actual results may differ materially from those expressed or implied.

CARGO | 2021 VS. 2020 Year-over-year growth

+$674,000

+12%

Aeronautical Revenue

+576 landings

+12%

Landings

+46 million tonnes

+8%

Maximum Takeoff Weight

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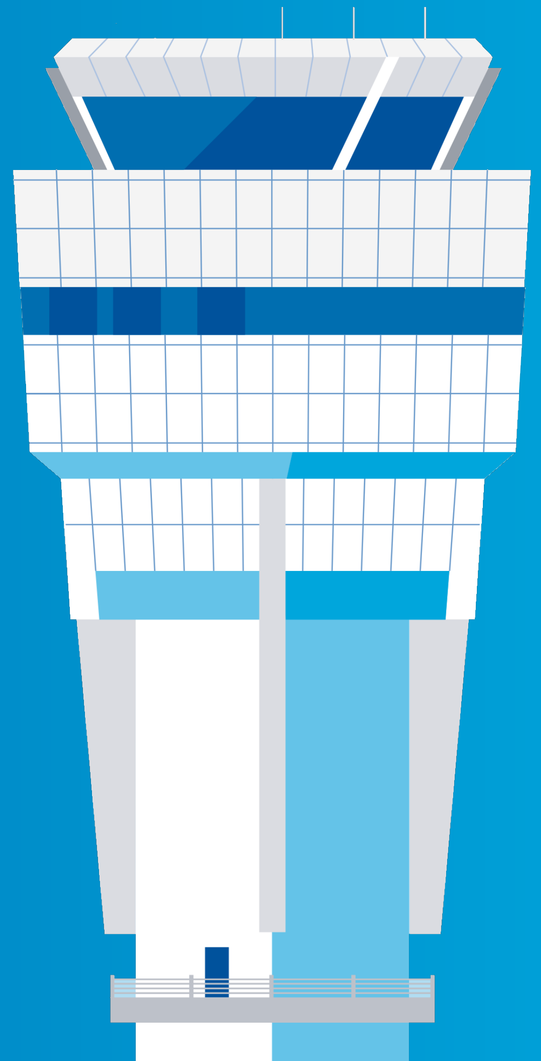
2022-04-21

Calgary Airport Southbound Jet Turn Trial

Christopher Csatlos – Manager, Stakeholder and Industry Relations

Greg Konrad – Manager, Calgary Tower



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 The 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

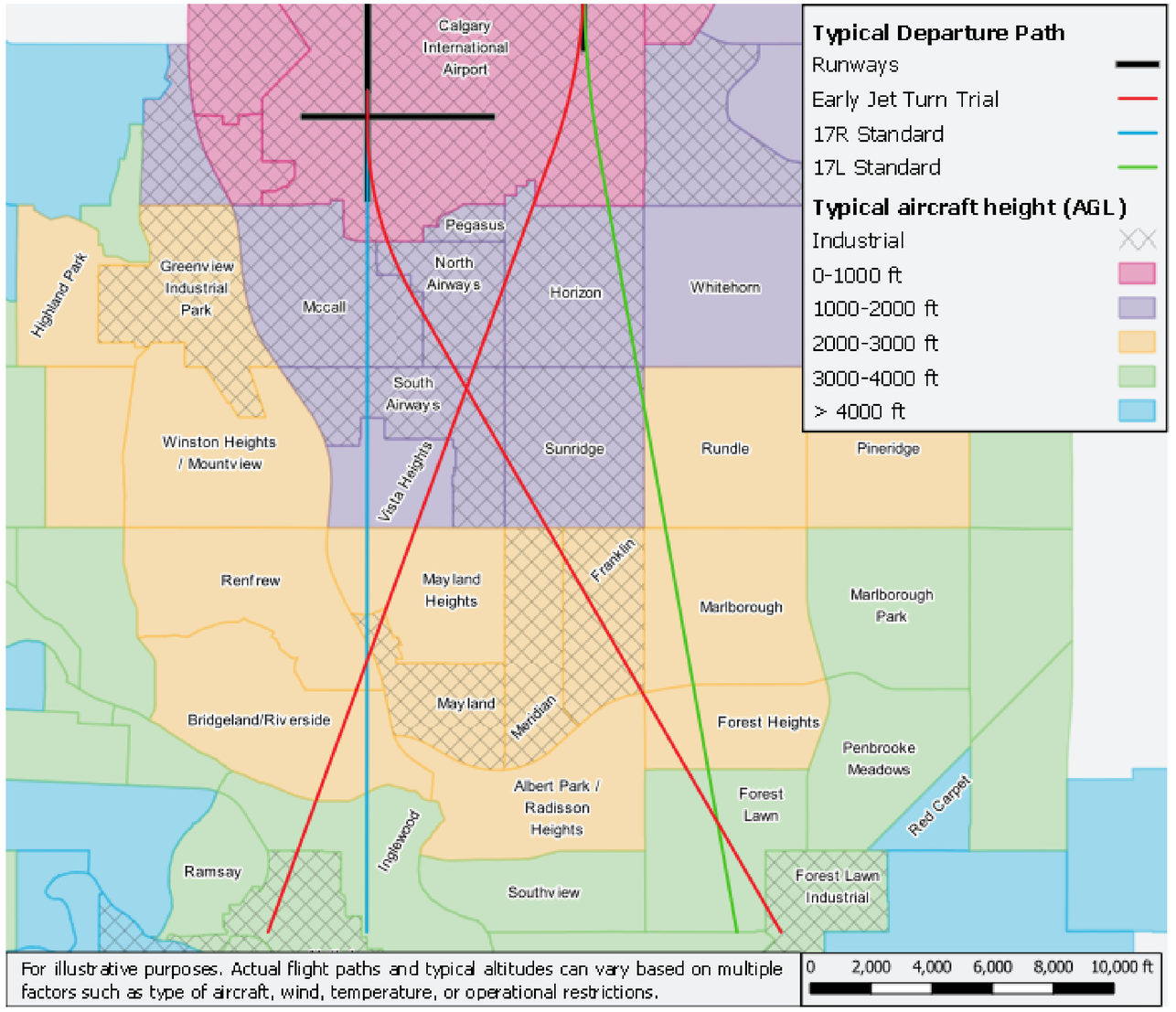
Benefits

- 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



Launch of Consultation

UPDATE ON CONSULTATION

- Initial briefing provided to the Airport Community Consultative Committee (ACCC) on September 18, 2019.
- Public notice was published on YYC website, social media 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

Pre-Consultation

January 2022

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

Official Consultation Period

January 2022

- Jan 24, 2022 to Mar 11, 2022
- Online Information Session
- Feedback Survey

Post-Consultation

April/May 2022

- Consultation Report
- Briefings to ACCC on results

Implementation

- Subject to consultation

Summer 2022

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

CONSULTATION HIGHLIGHTS TO-DATE

Briefings to Elected Officials

Conducted proactive outreach to offices of nine elected officials with offer of briefings.

CONSULTATION HIGHLIGHTS TO-DATE

Public Information Sessions

Public Information Sessions

- 2 sessions
- 102 session registrations by 95 unique people
- 61 recorded attendees

CONSULTATION HIGHLIGHTS TO-DATE

Feedback Survey

83 Survey Responses Received

- Top 3 locations: Mayland / Mayland Heights, Renfrew, Bridgeland / Riverside

Preliminary results…

- Respondents consider community noise exposure to be as important a factor as safety when designing flight paths
- The majority of respondents found the change more noticeable during the evening or overnight hours

POST-CONSULTATION AND IMPLEMENTATION

- Consultation Report being prepared; expected May 2022.
- Timing of any potential implementation will need to take in to account any adjustments as a result of consultations.
- A post-consultation report detailing information and feedback obtained during the consultation period will be prepared by NAV CANADA
- 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

THANK YOU

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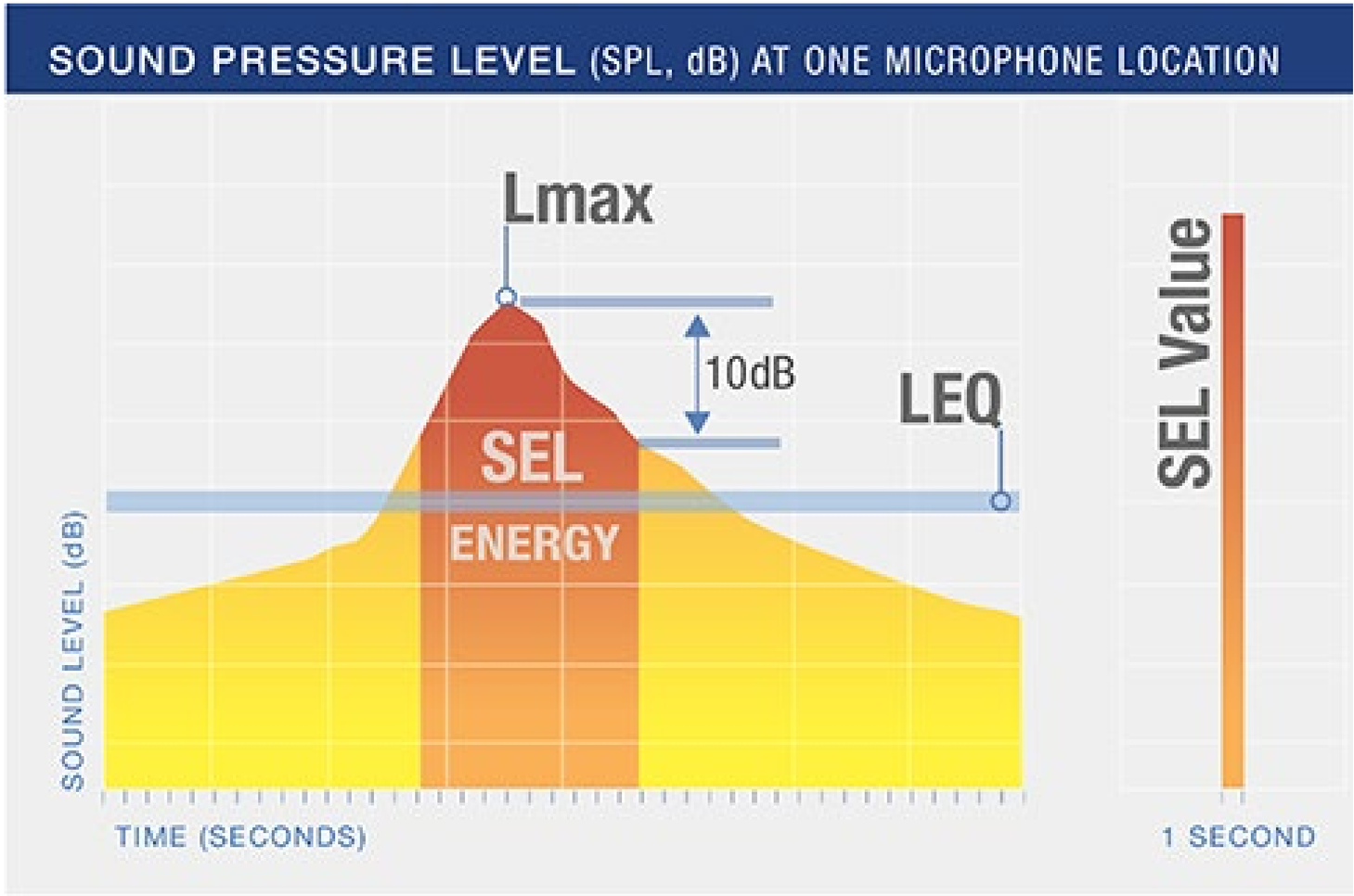
EAST MAYLAND HEIGHTS NOISE

AIRCRAFT ACOUSTICS 101

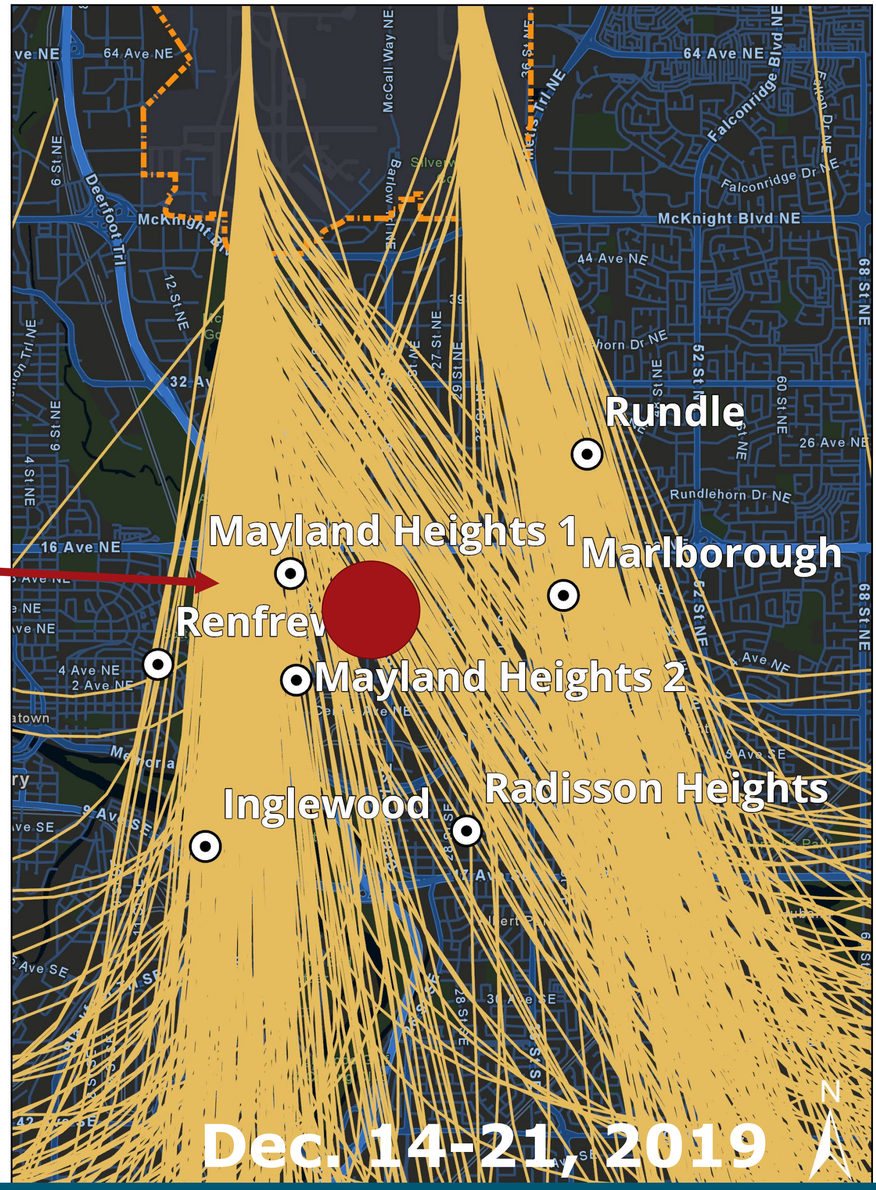


PURPOSE OF THIS STUDY

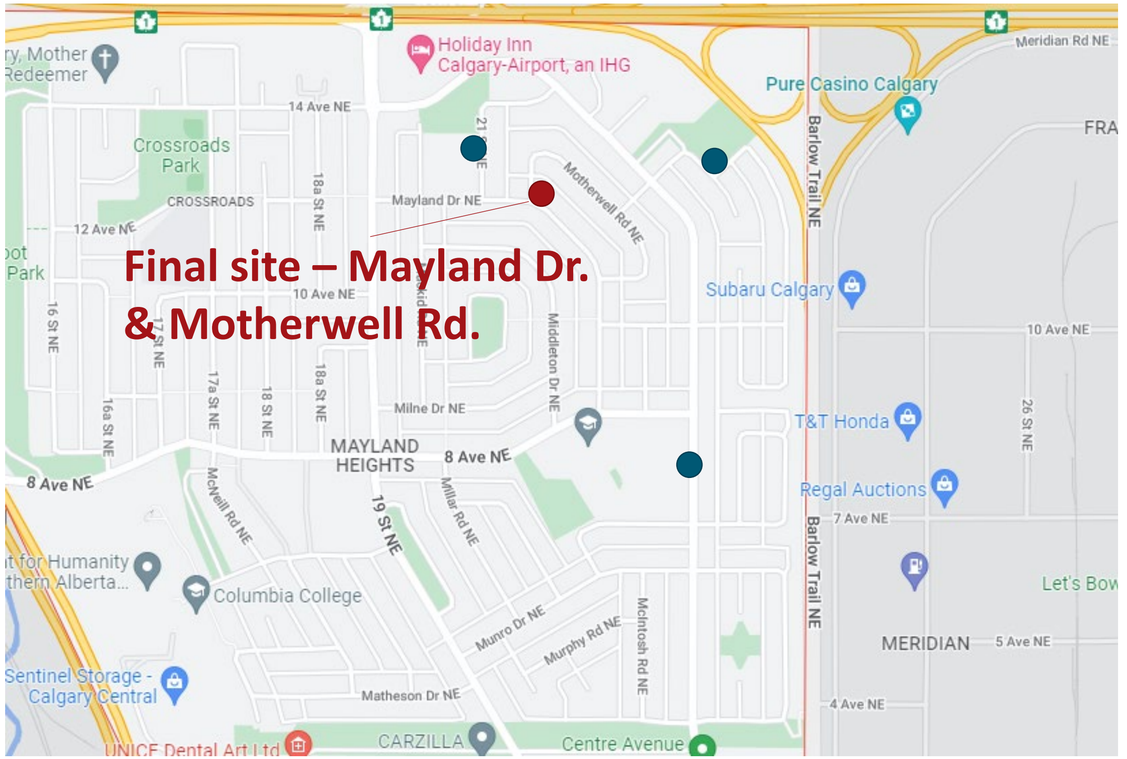
To fill a gap in acoustical monitoring identified in the Calgary Alternate Departure Heading Trial consultation for EAST MAYLAND HEIGHTS (east of 19 St. N.E.)

To characterize the acoustical profile of overflights associated with the Alternate Departure Heading Trial in the study area

Post-implementation Southbound Departures



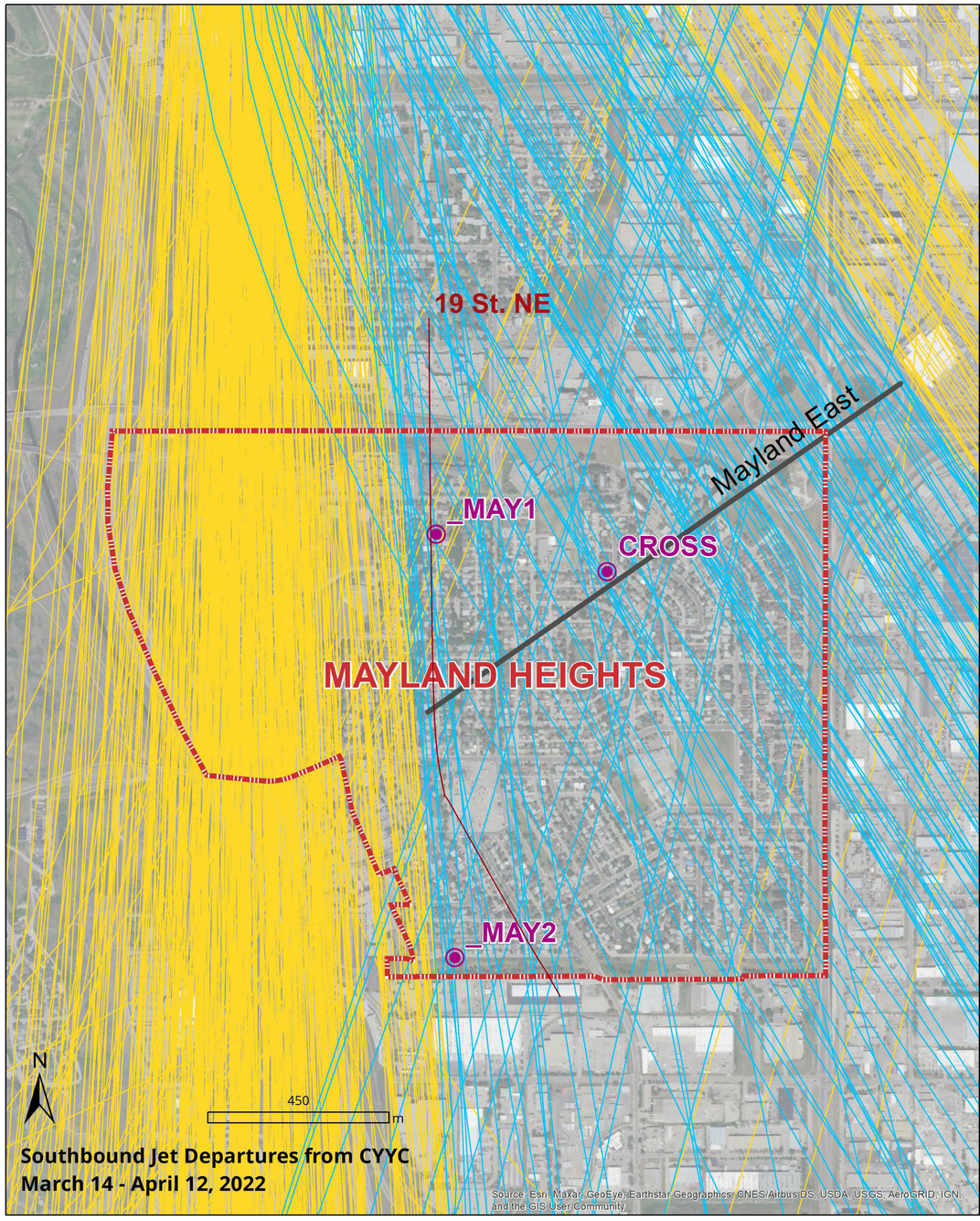
STUDY AREA AND APPROACH



- Mobile noise monitoring terminal parked in the residential area
- Several locations were initially identified and final location was selected based on following criteria:
  - Minimal interfering community noise sources.
  - Within area identified by community members as being exposed to aircraft overflight noise.
  - Minimal visual disruption.
  - Able to meet City of Calgary Street Use Permit requirements.
- Continuous monitoring and recording of noise pressure from March 14 onward

OVERVIEW OF FLIGHTS & ANALYSIS FRAMEWORK

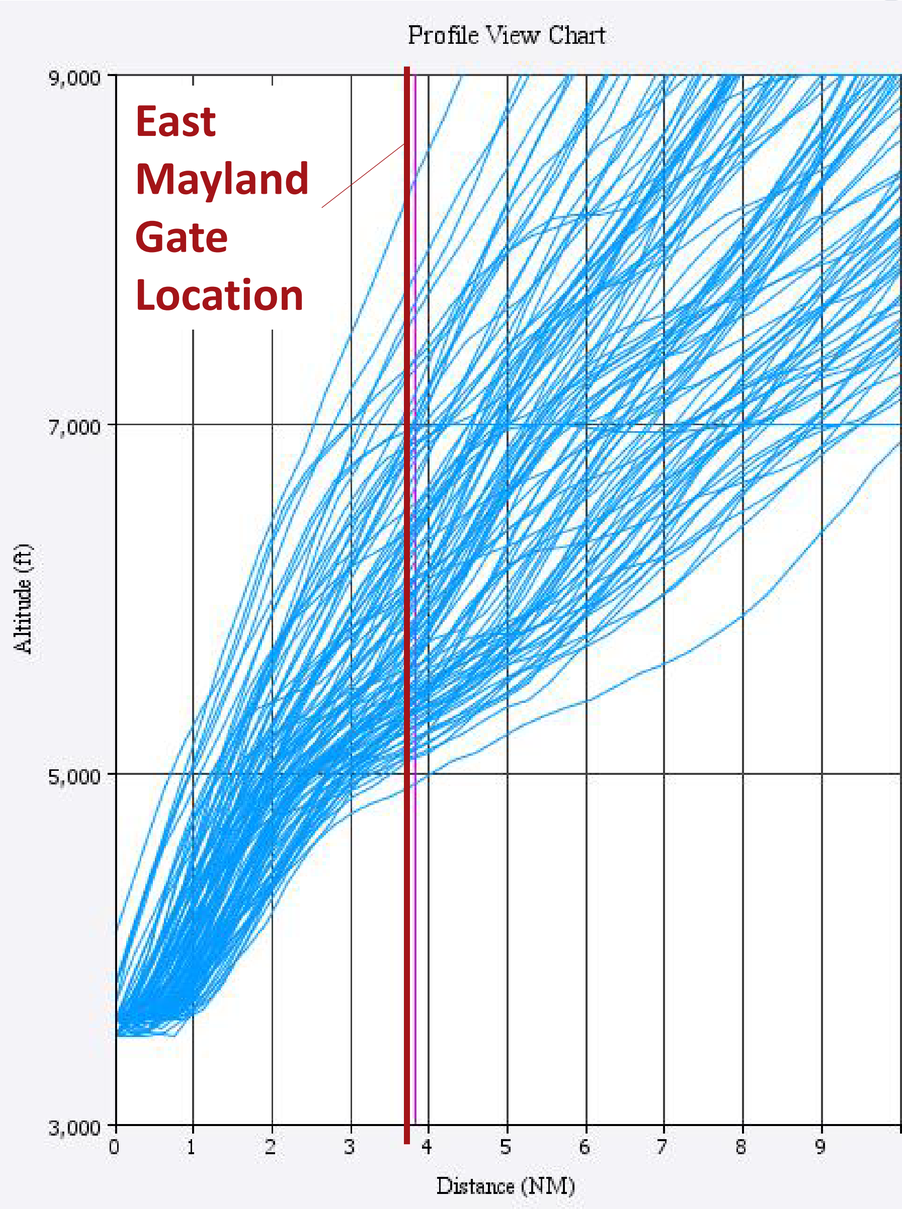
- Analysis conducted on three Mayland Heights Stations.
- Compared all flights at each station and only Mayland East flights (blue tracks).
- 1185 Southbound departures from CYYC
  - *203 Flights were at night (between 2300 and 0600 LT)*
- 113 crossed the “Mayland East” gate (9.5%).
  - *23 Flights were at night (11.3%)*
- For the acoustic analysis 9 of 113 flights did not correlate to noise events (all during daytime hours).



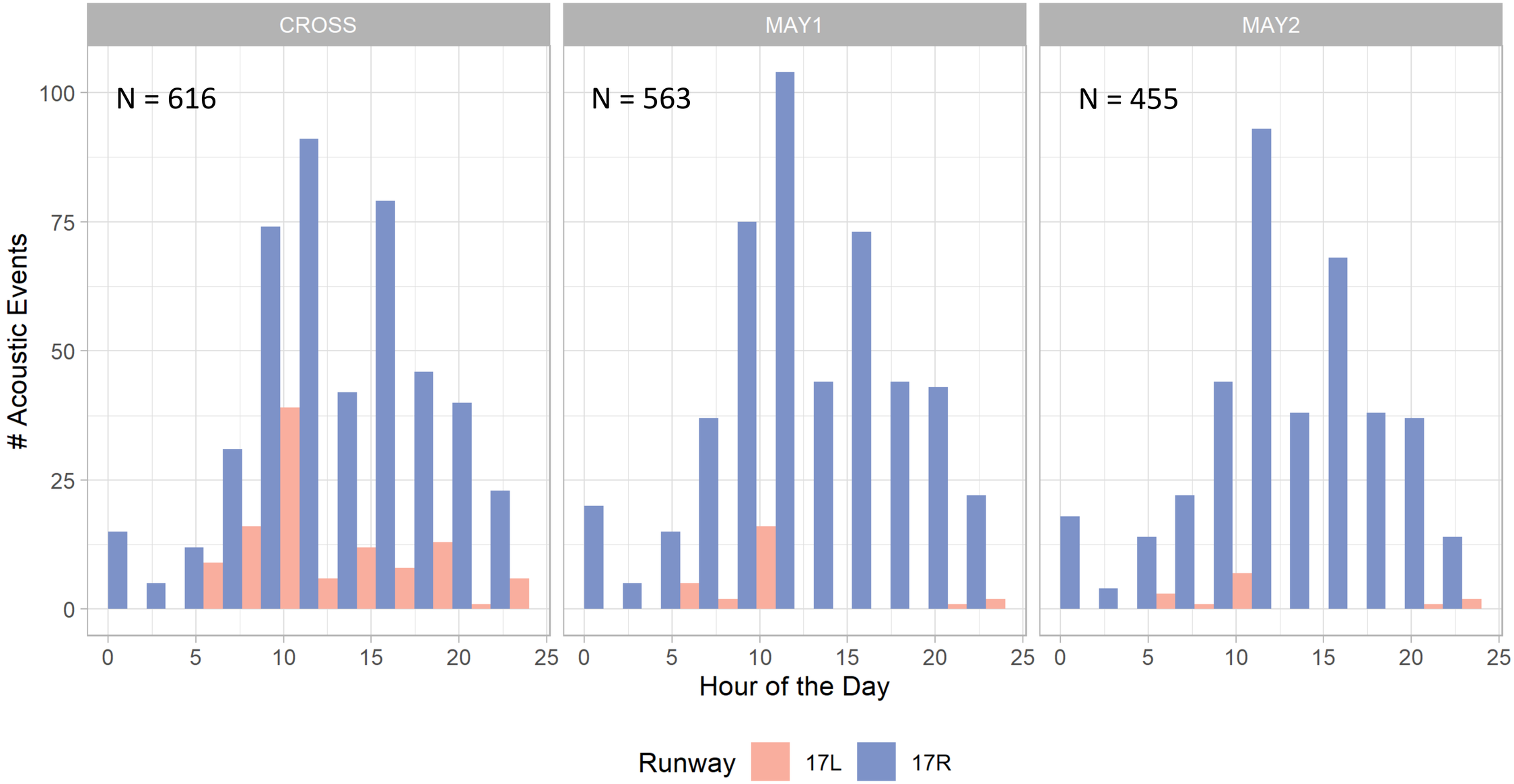
OVERVIEW OF FLIGHTS BY ALTITUDE AND AIRCRAFT TYPE

- Mayland Heights mobile terminal elevation: approx. 3,582 ft ASL.
- All flights above 4,582 ft ASL in East Mayland Heights (> 1,000 ft AGL).

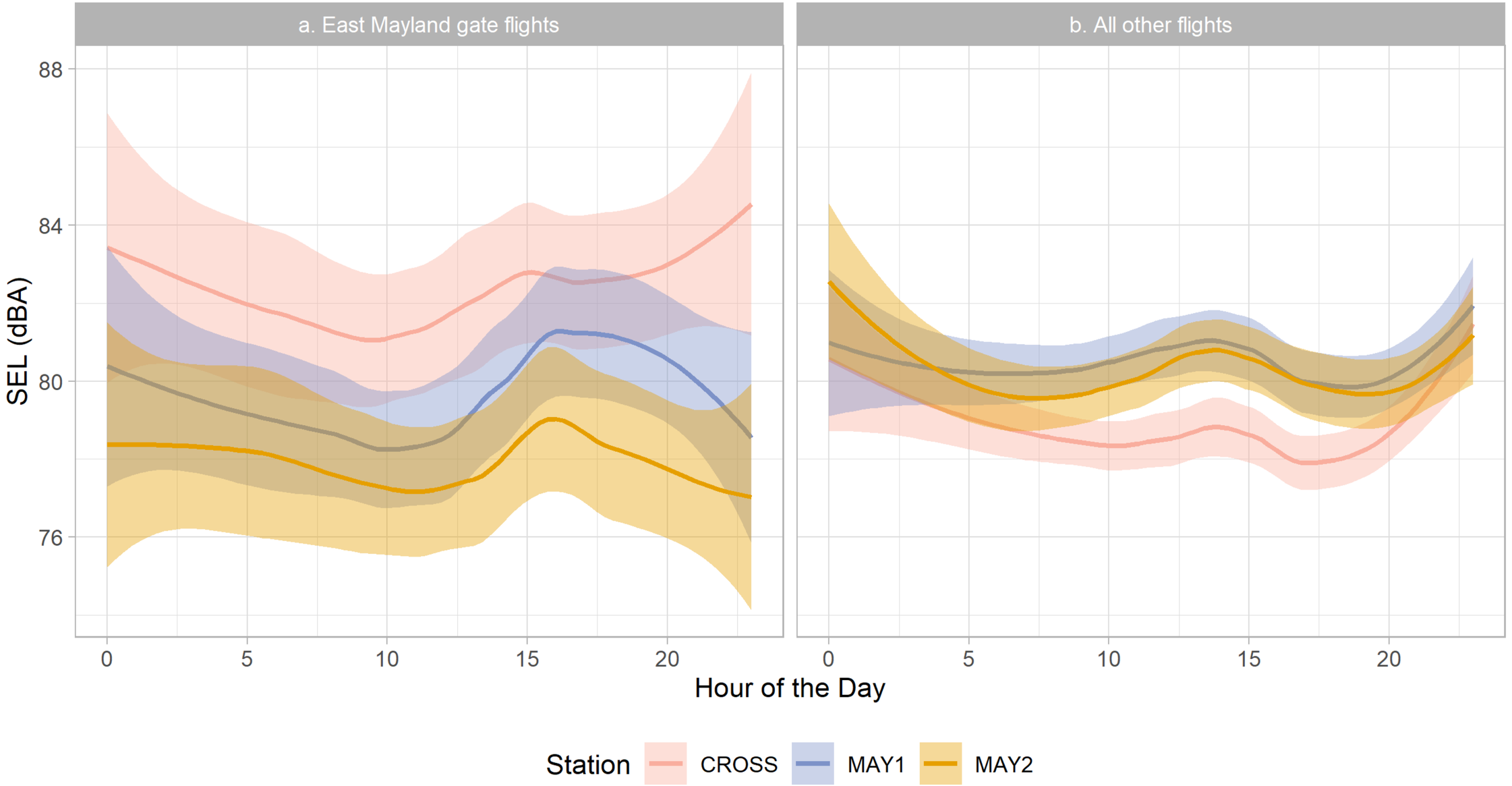
	% of Noise Events for Each Station			
Jet Aircraft Type	**MAY1**	**MAY2**	**CROSS**	**Grand Total**
737-MAX	27%	30%	24%	27%
737-700	21%	18%	20%	20%
737-800	15%	14%	19%	16%
737-300	6%	7%	4%	5%
757-200	5%	4%	6%	5%
767-300	6%	4%	5%	5%
Cessna Citation	3%	3%	3%	3%
Other	17%	19%	19%	18%



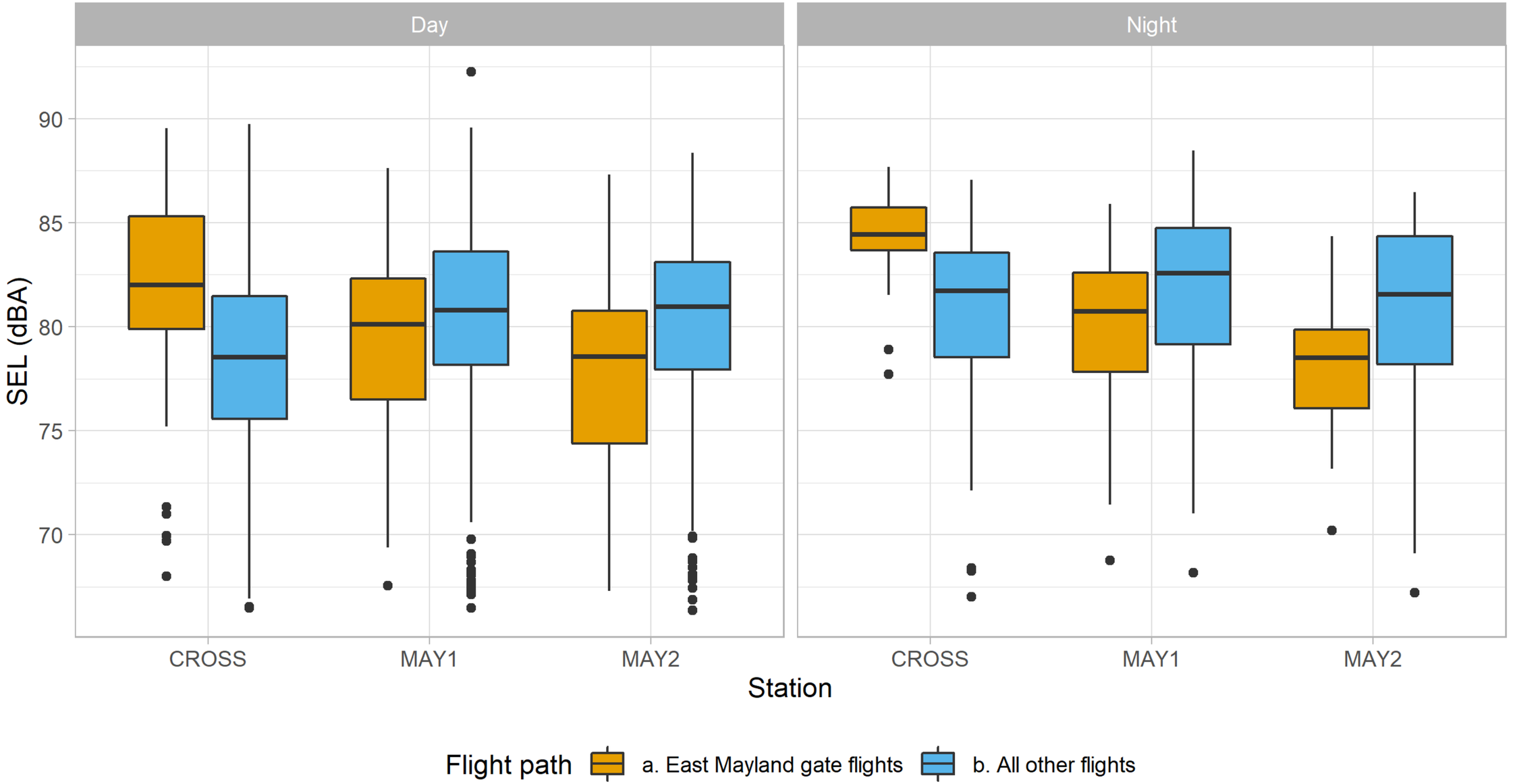
NUMBER OF ACOUSTIC EVENTS



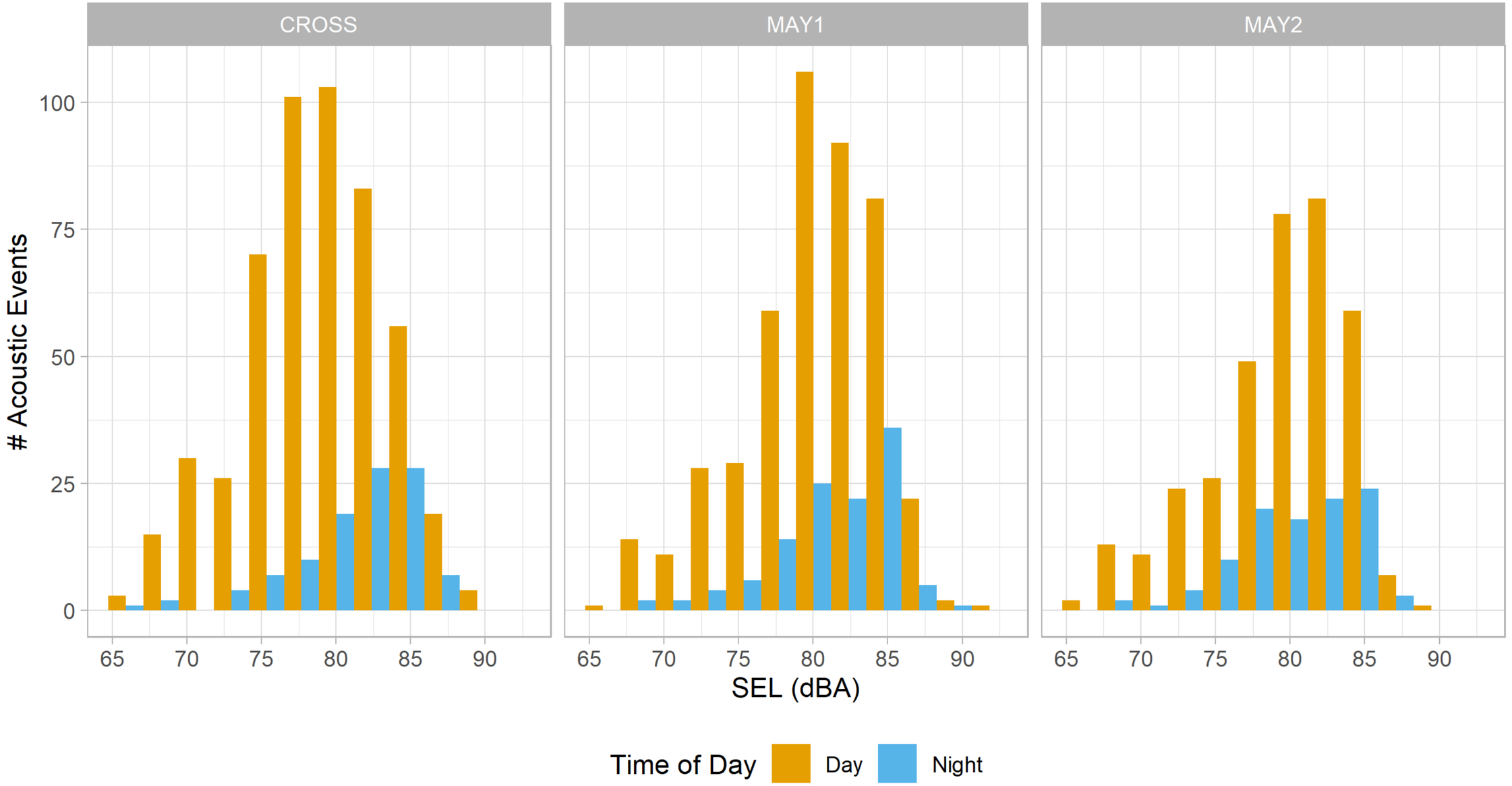
DAILY TRENDS IN AIRCRAFT ACOUSTIC NOISE EVENTS



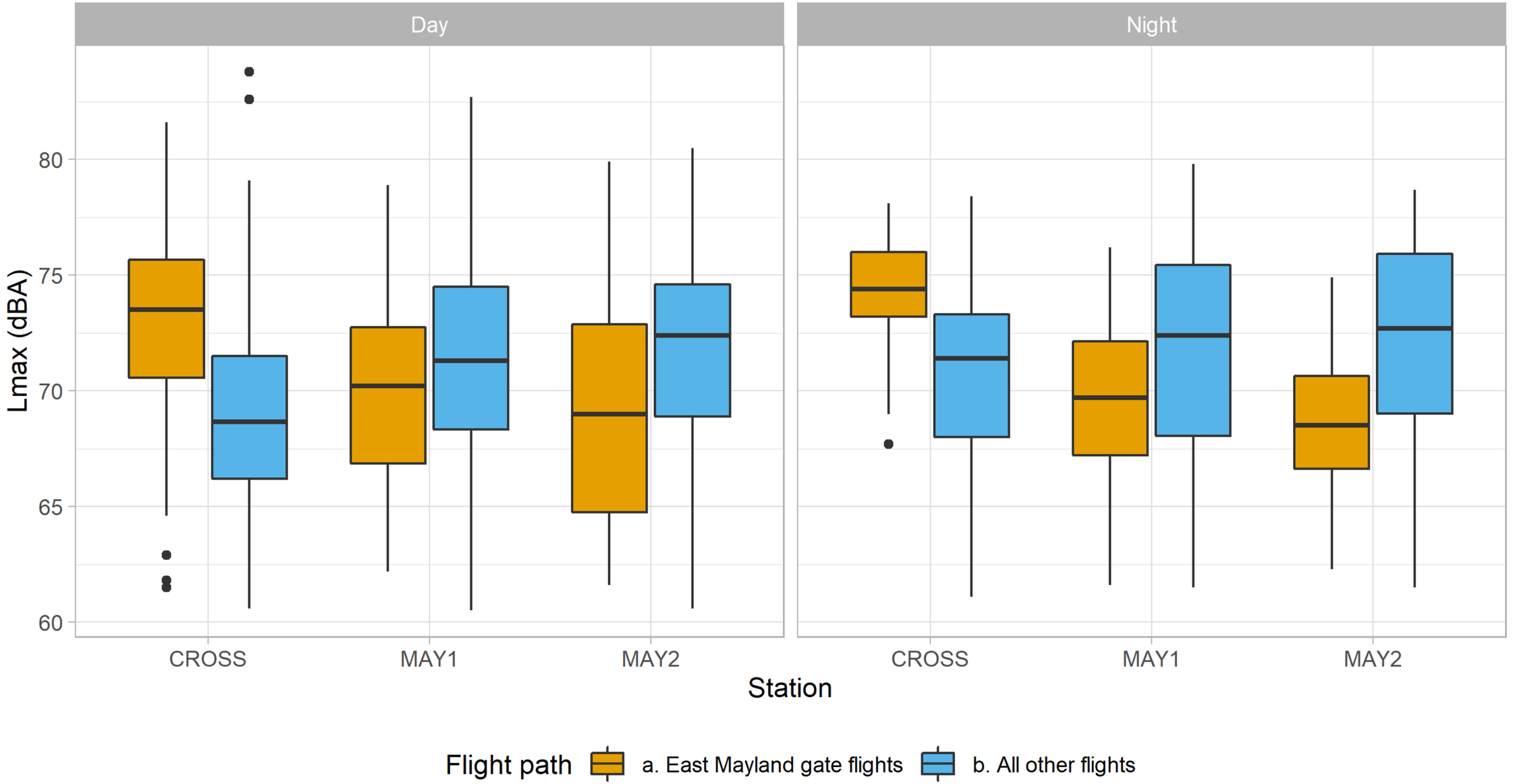
DAY-NIGHT COMPARISON (SEL)



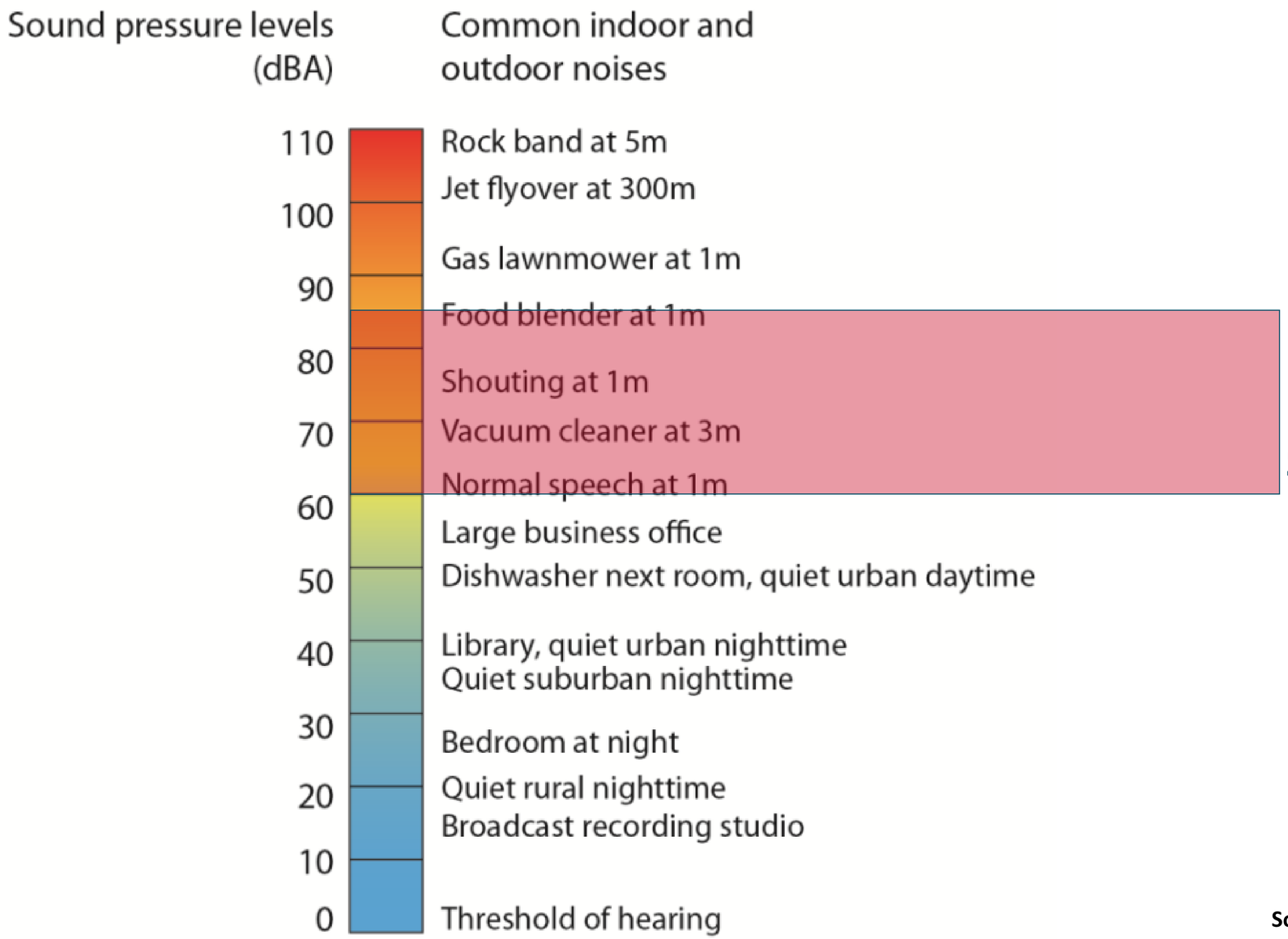
DAY-NIGHT COMPARISON FOR ALL EVENTS (SEL)



DAY-NIGHT COMPARISON (LMAX)



LMAX SUMMARY



Range measured in Mayland Heights <u>outdoor</u>

Source: Minnesota Pollution Control Agency (2015)

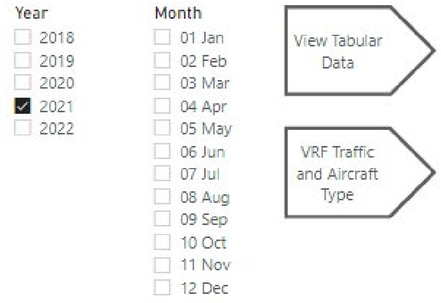
WHAT ARE THE 'LOUDEST' AND 'QUIETEST' EVENTS (LMAX)?

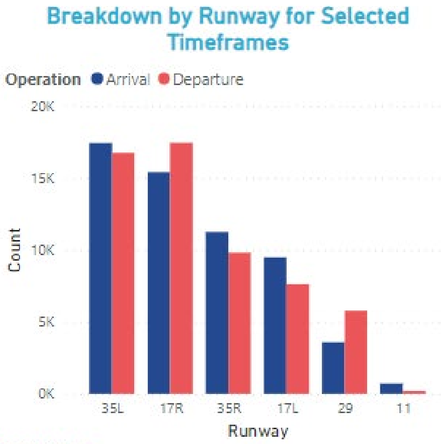
Flight Path Location	Lmax	SEL	Hour (LT)	Station	Duration (s)	Aircraft	Flight Altitude (ft AGL)	Runway
Loudest (> 80 dBA Lmax)								
b. All other flights	83.8	87.0	15	CROSS	30	B737	2730	17L
b. All other flights	82.7	92.3	22	_MAY1	35	B744	1588	17R
b. All other flights	82.6	87.0	17	CROSS	31	B763	1988	17R
a. East Mayland gate flights	81.6	89.5	18	CROSS	27	B77W	1575	17R
b. All other flights	81.5	89.3	9	_MAY1	30	B737	1726	17R
b. All other flights	80.9	88.2	17	_MAY1	28	A333	1489	17R
b. All other flights	80.5	86.9	16	_MAY2	27	B733	1796	17R
b. All other flights	80	88.4	17	_MAY2	33	A333	1778	17R
Quietest (60 - 61 dBA Lmax)								
b. All other flights	60.9	71.4	9	_MAY2	13	B38M	2582	17R
b. All other flights	60.8	71.9	8	_MAY2	15	B38M	3548	17R
b. All other flights	60.8	66.5	17	_MAY1	5	B763	2095	17R
b. All other flights	60.6	66.9	9	_MAY2	5	B737	1445	17R
b. All other flights	60.6	66.5	14	CROSS	5	A321	1720	17L
b. All other flights	60.6	70.6	7	_MAY1	11	C680	3793	17R
b. All other flights	60.5	70.6	7	_MAY1	11	F2TH	3083	17R
b. All other flights	60.5	70.8	7	_MAY1	12	F2TH	2136	17R

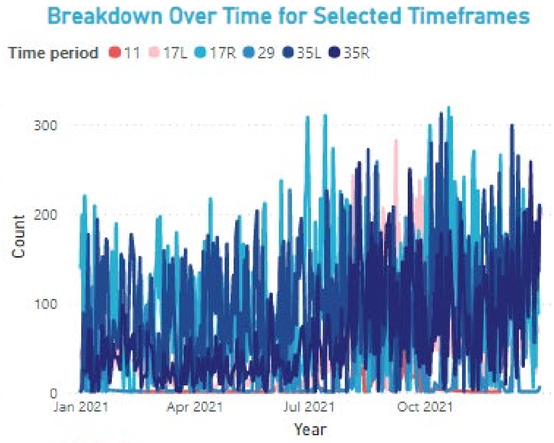
PRELIMINARY FINDINGS

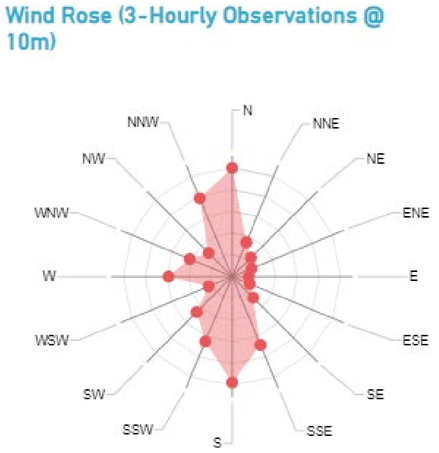
Finding	Details
Mobile terminal was successful in capturing the signature of East Mayland noise events more clearly than other stations in the network.	Significant difference in SEL and Lmax profiles for between East Mayland overflights at CROSS vs. MAY 1 and MAY 2.
East Mayland Heights receives aircraft noise from both the East and West runways.	Breakdown by runway shows greater frequency of event from both runways.
Sound pressure levels (SEL and Lmax) are within the same range at all monitoring stations.	While variability and median levels may vary, the differences are 4-5 dBA among stations for the same time periods. The overall ranges are the same (min-max).
Less variability, lower frequency and slightly higher sound pressures at night vs. day	Day-night comparisons show far fewer events at night (80% of all noise events from 0700 through 2200).

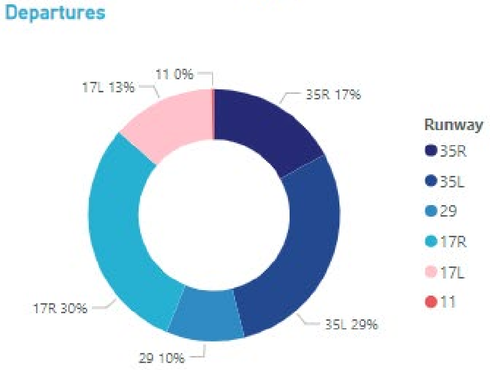
AIRCRAFT TRAFFIC DASHBOARD

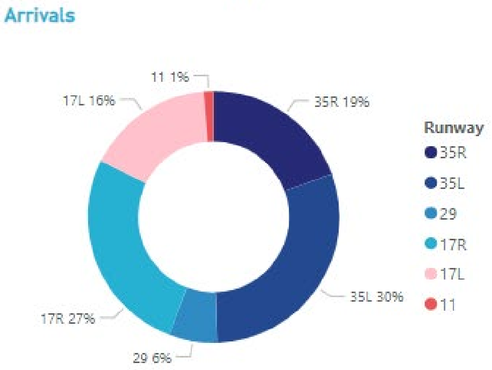












ACTION ITEMS

- FEASIBILITY OF NOISE CONSULTATION UPDATE IN COMMUNITY NEWSLETTERS

- GRAPH OF HISTORICAL AND 2021 FLIGHT MOVEMENTS

- REVIEW ACCC TERMS OF REFERENCES

ROUNDTABLE