

Noise Statistics Update

Year End 2021



Overall Analysis

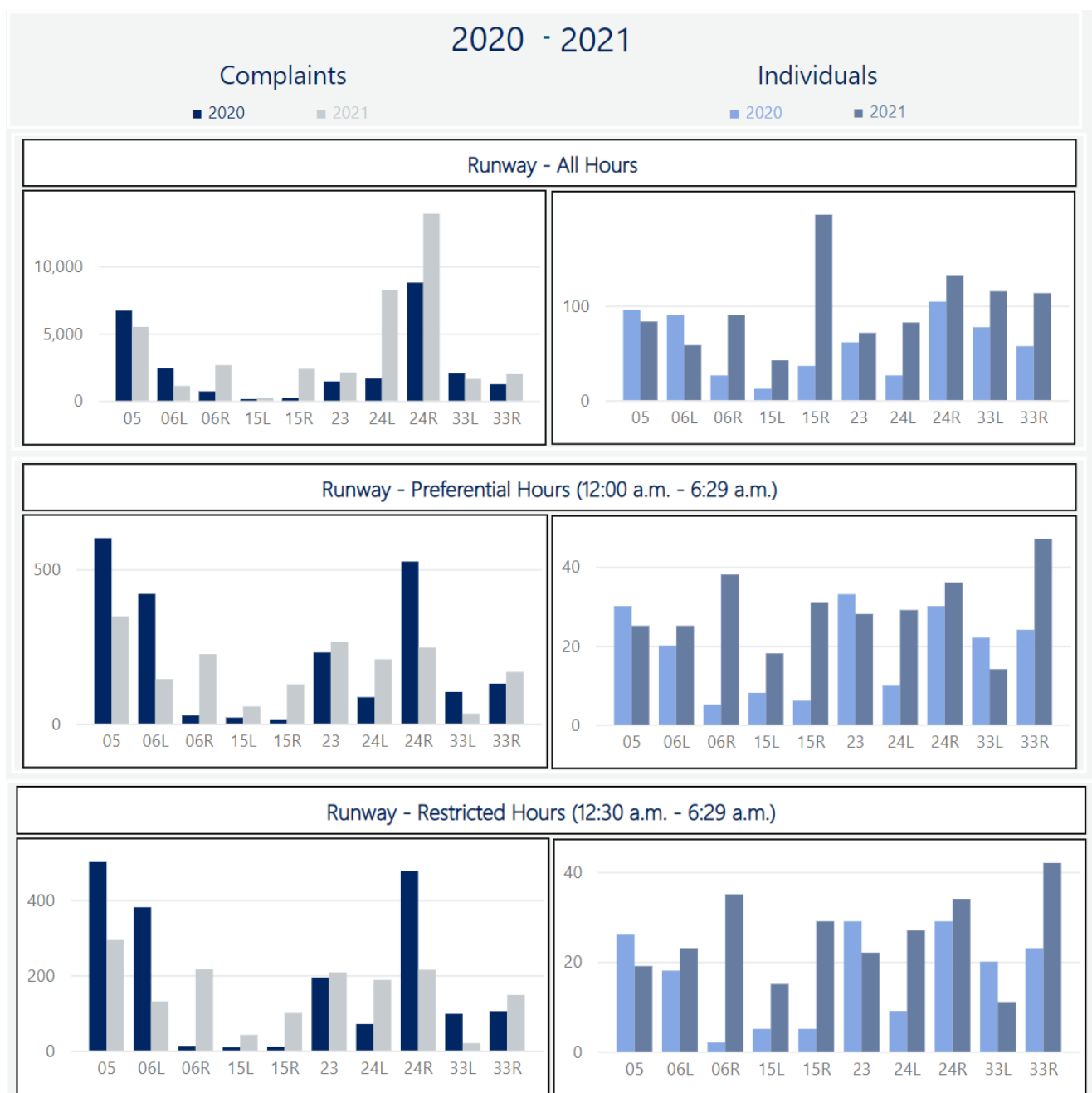
- During 2021, Toronto Pearson experienced the continued impacts of COVID-19 with a significantly reduced air traffic compared to 2019. And similar levels to 2020.
- The reduction in traffic has meant that fewer runways are needed at one time to handle the traffic.
 - For example, under high traffic levels, up to three parallel runways are used as a system to accommodate traffic. Under lower levels, only one or two runways are needed.
 - Learn more about how runways are used and what the different configurations mean [here](#).
- Similarly, lower traffic levels have reduced the regular need for the downwind arrival phase of flight used for sequencing. Instead, many arrivals are sent directly to the base leg. When using this approach, fewer residents are overflown than when using the downwind.
 - This is significant because the downwind phase has historically prompted many complaints from affected communities. Therefore, a reduction in its use has led to a further reduction in complaints from these areas.

Complaints

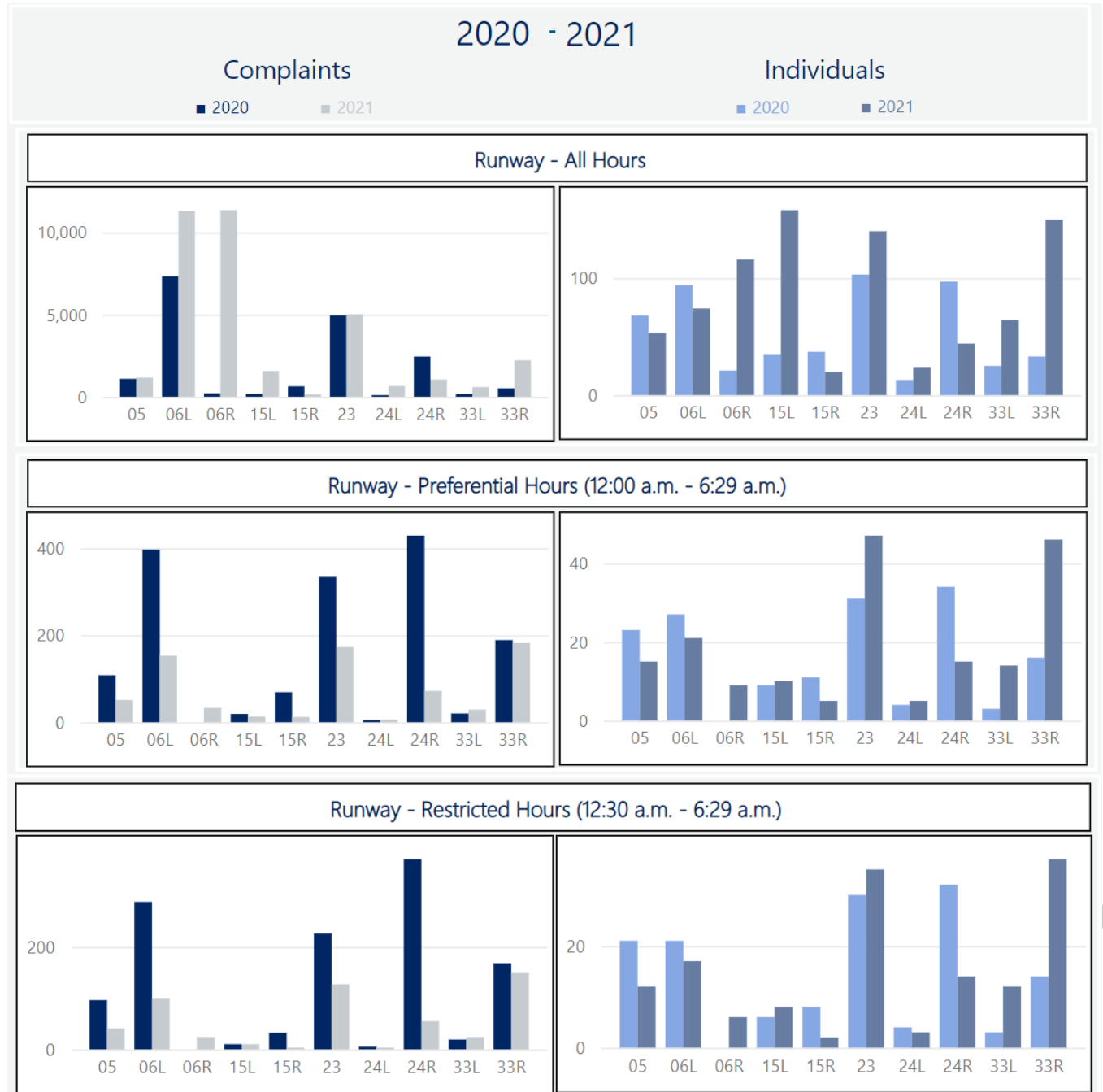
Complaints Analysis

- Overall, for 2021, complaints were up 74.8% compared to the same period in 2020.
- Overall, for 2021, the number of individuals submitting complaints were up 99.6% compared to 2020.
 - Overall complaints against arrivals in 2021 were up 57.3% and the number of individuals submitting complaints were up 97.4% due to continued impacts of COVID-19 compared to the same period in 2020.
 - Overall complaints against departures in 2021 were up 99.9% and the number of individuals submitting complaints were up 85.8% due to continued impacts of COVID-19 compared to the same period in 2020.
- When comparing complaints and operations between 2020 and 2021, complaints have increased disproportionately to the amount of air traffic.

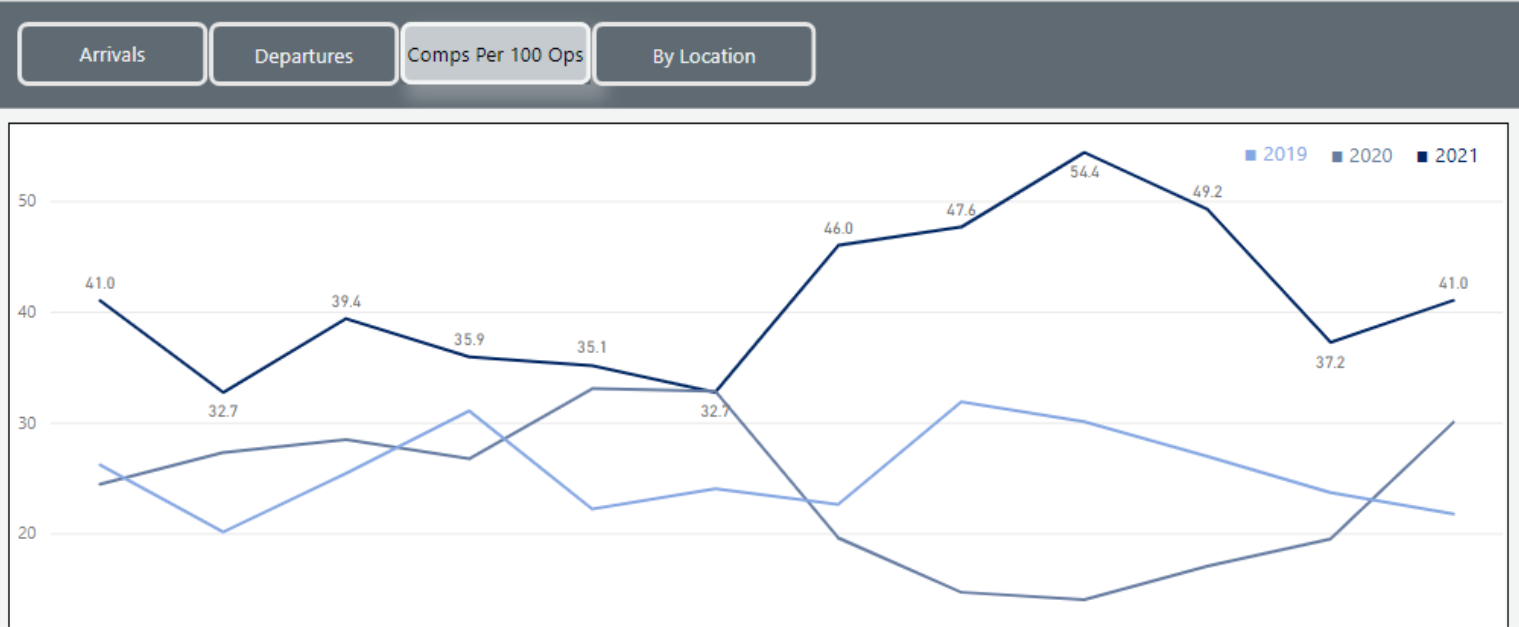
Arrivals



Departures

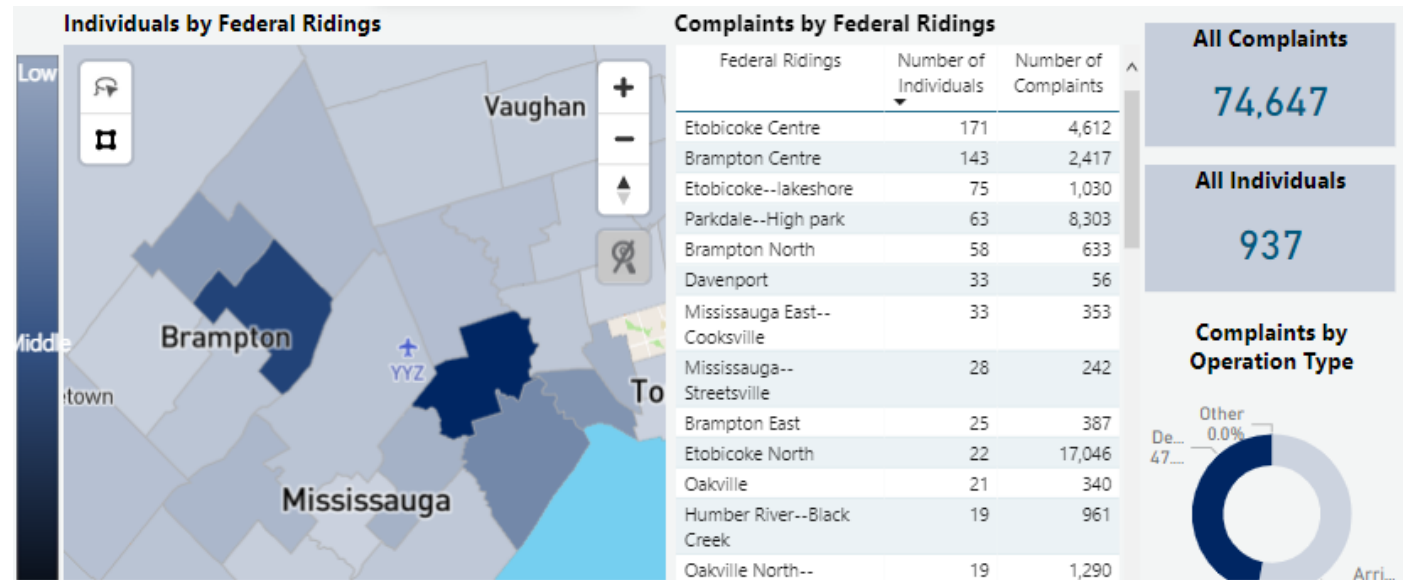


Complaints Per 100 Operations



All Complaints

(includes helicopter operations & engine run-ups)

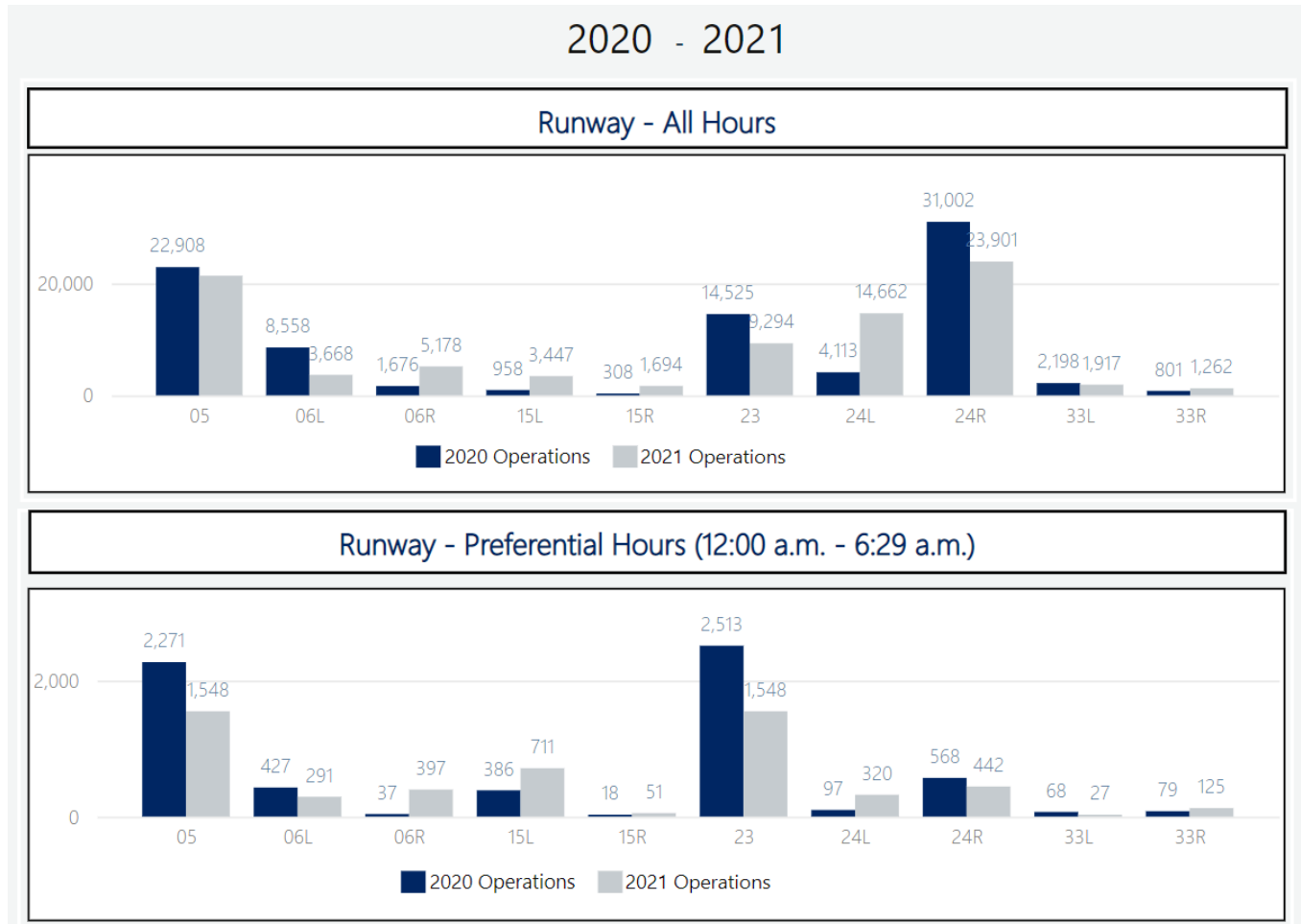


Operations

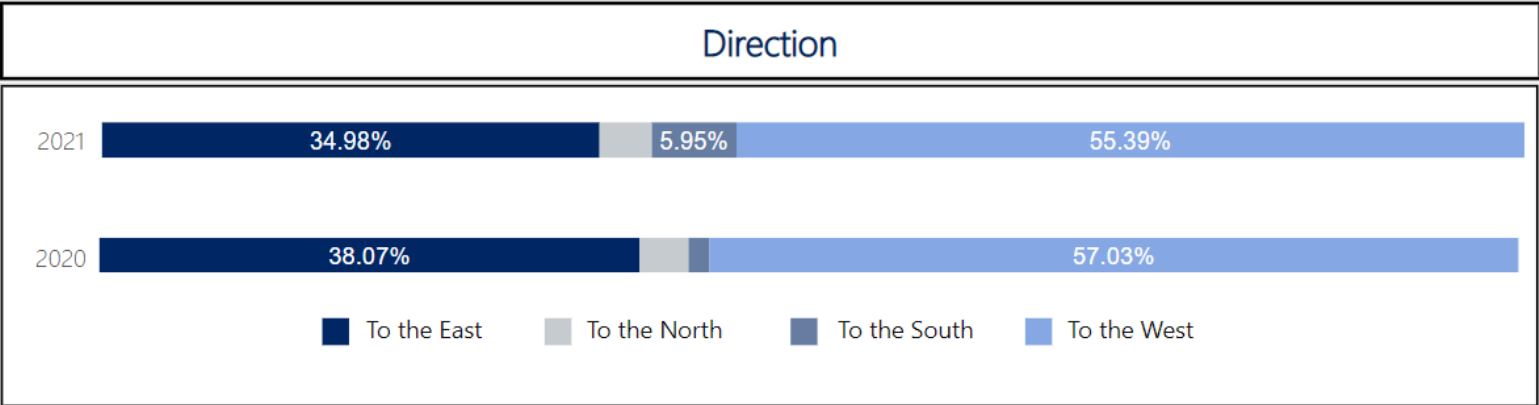
Operations Analysis

- Overall operations for the full year of 2021 were up 0.7% compared to 2020. During the preferential hours, there were 985 additional operations.
- In 2021, 86.1% of operations used the east-west runways compared to 95.1% in 2020.
 - Winds in the region are predominantly east/west and there will always be some variation in the percentage of time spent in a westerly vs easterly flow.
 - Runway availability due to construction or maintenance also plays a factor

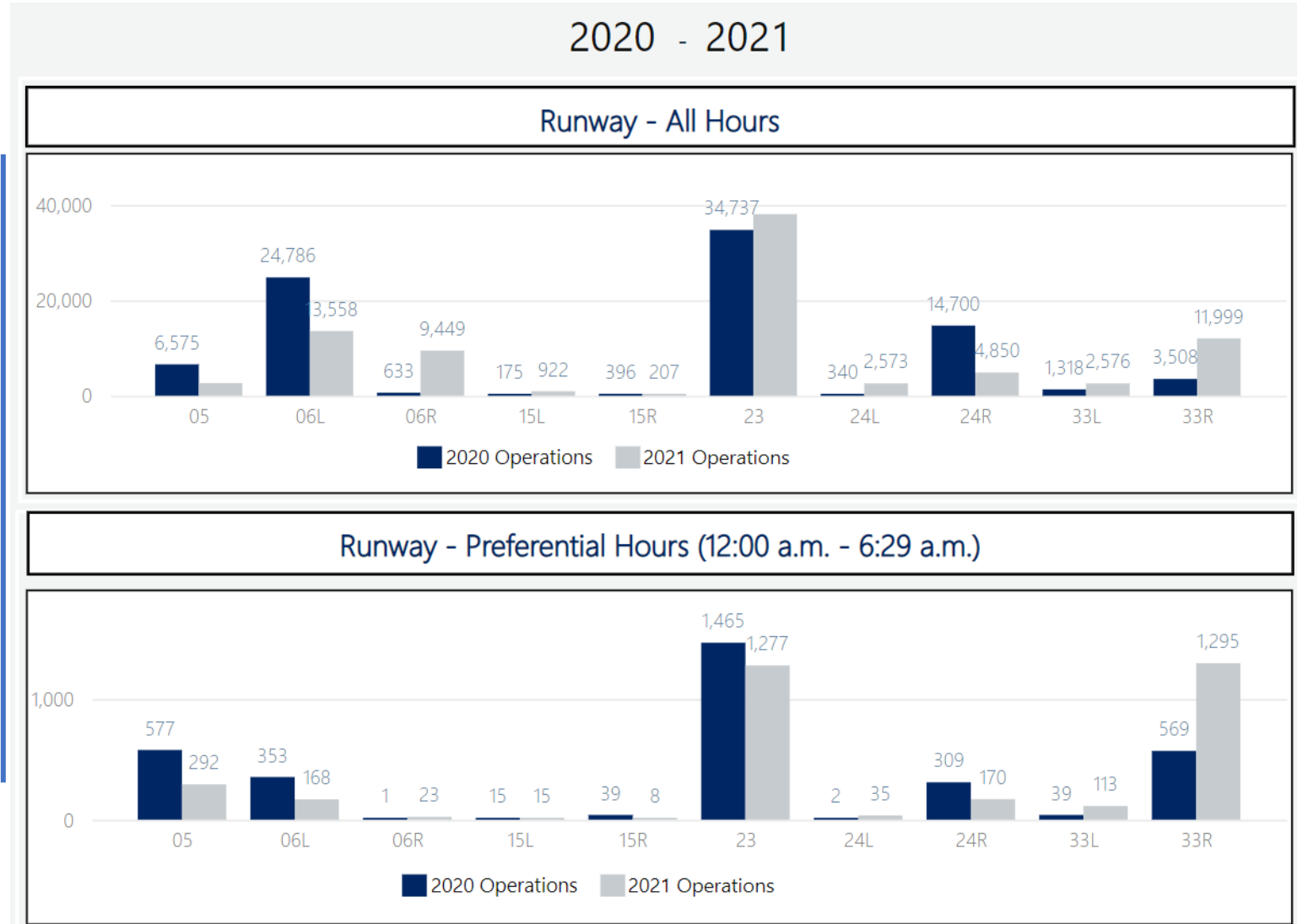
Arrivals



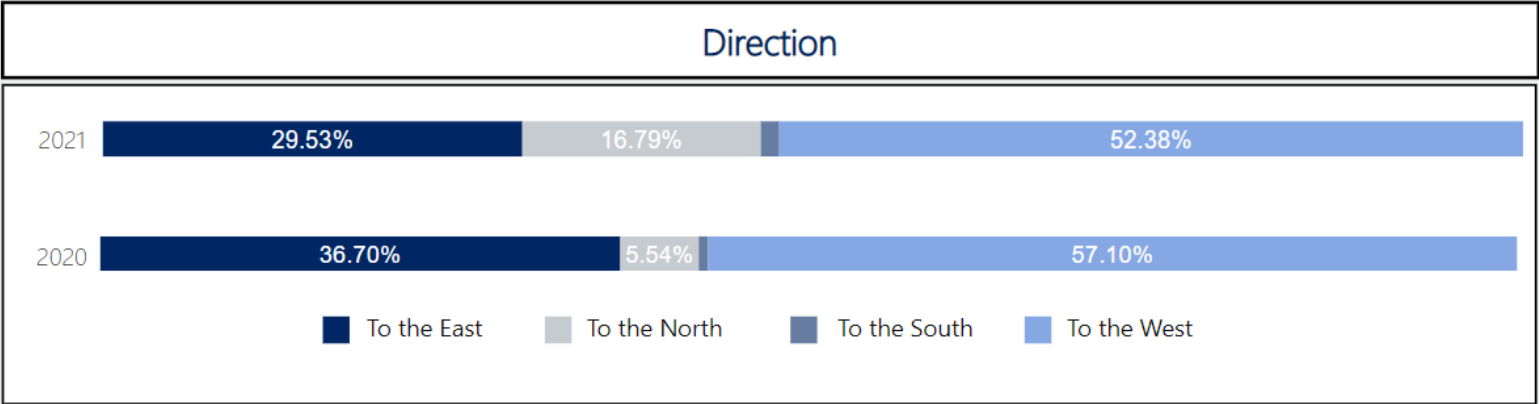
Arrivals by Direction



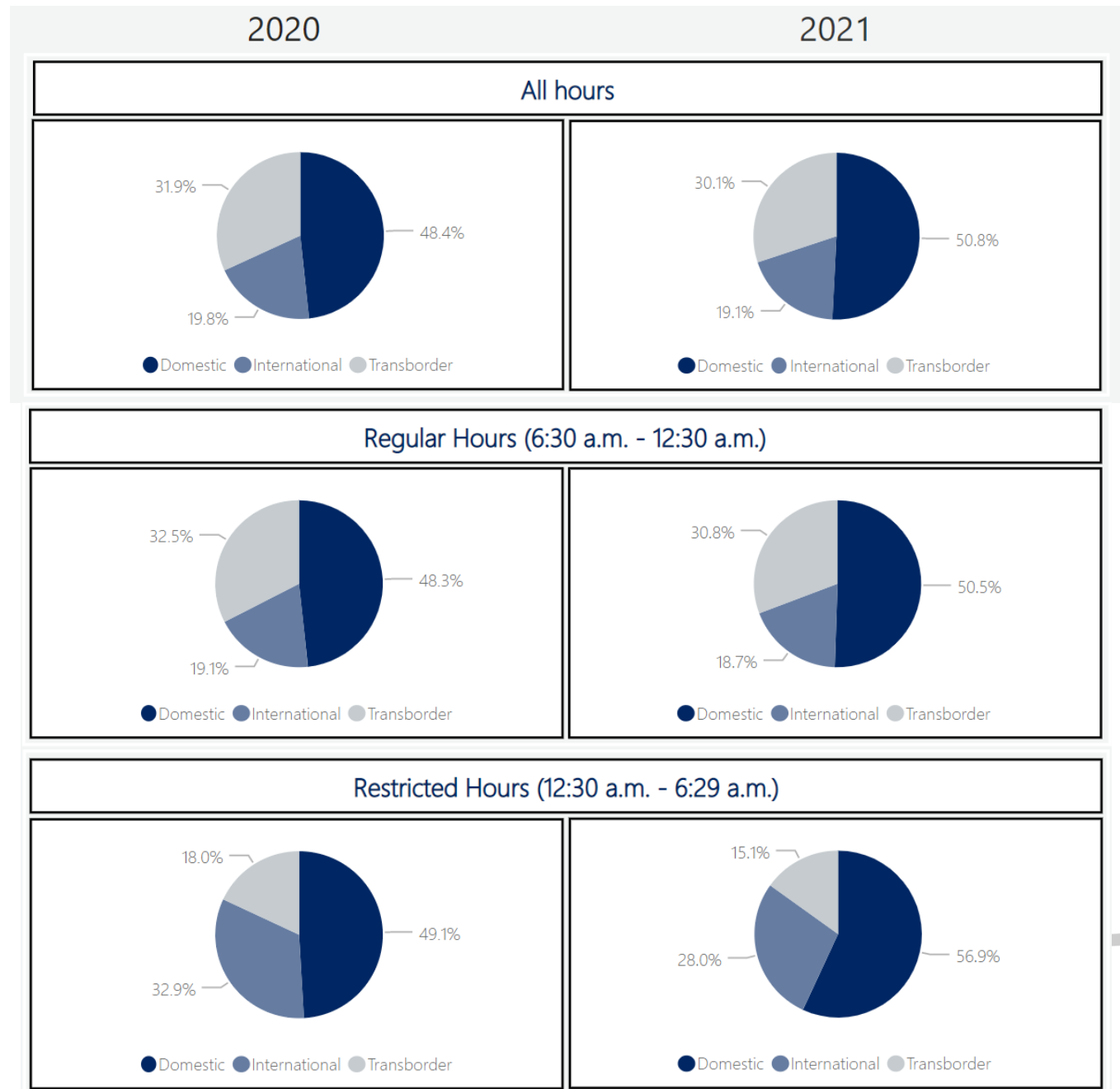
Departures



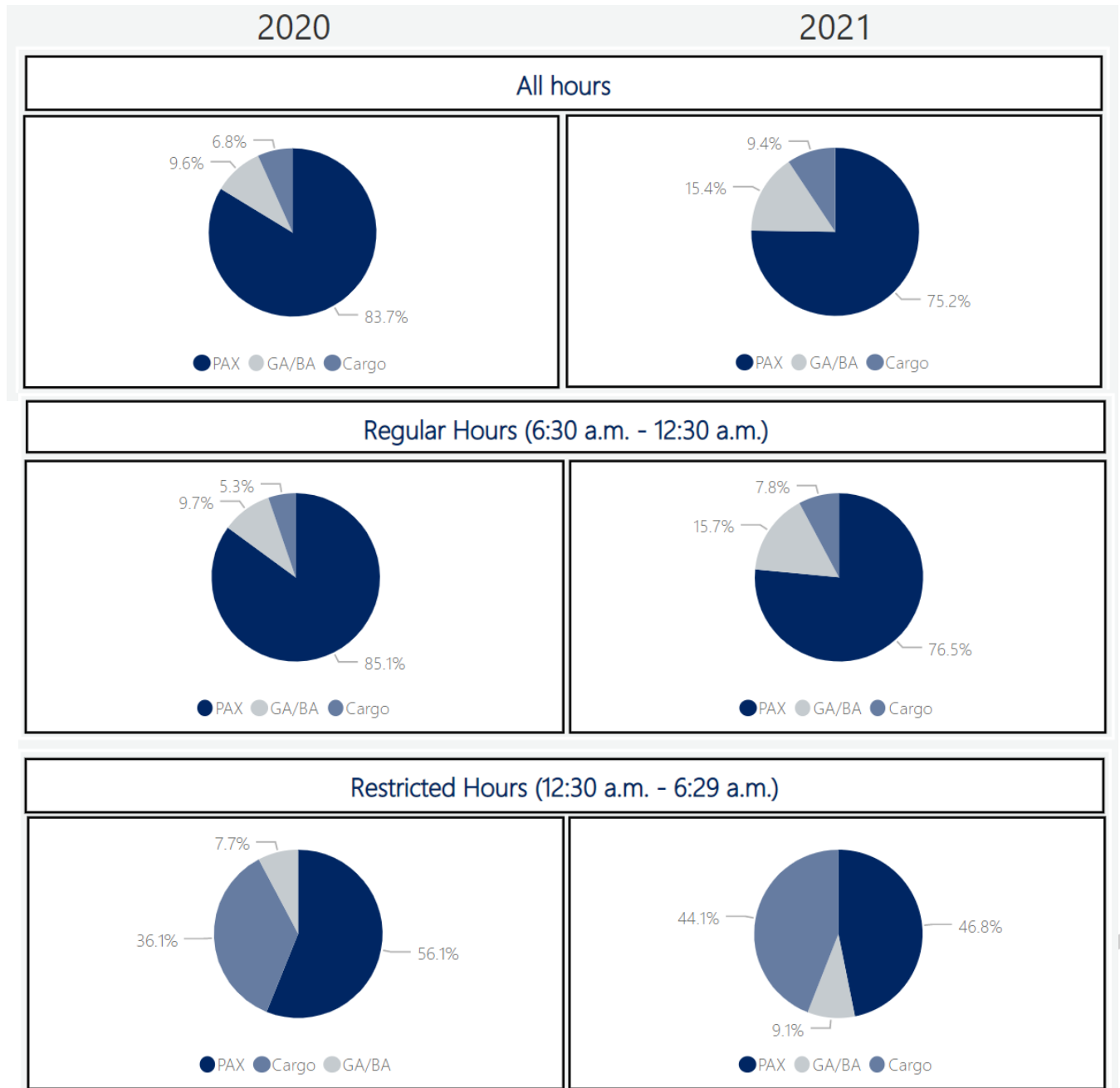
Departures by Direction



Operations by Sector



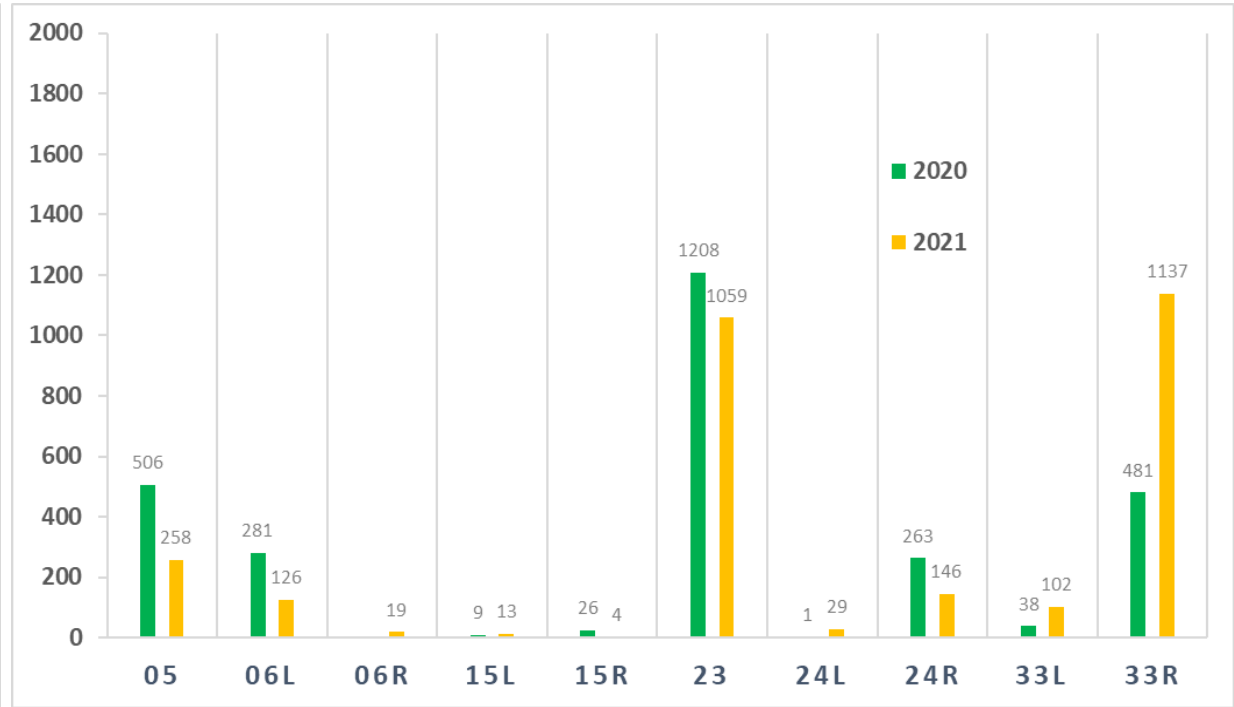
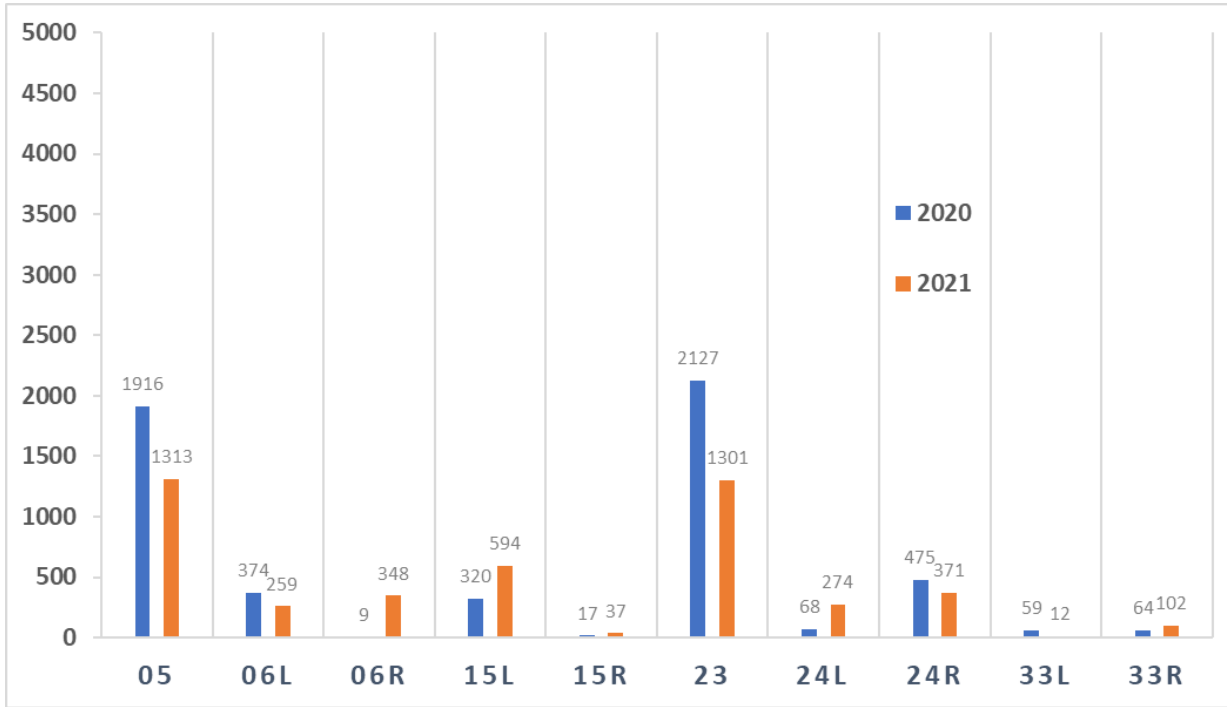
Operations by Type



Night Flight Restriction Program

Night Flight Restriction Program 2020-2021 (Jan-Dec)

Restricted Hours (12:30 a.m. - 6:29 a.m.)



Noise Year 2020-2021	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total	Annual Budget	% Used	Noise Year 2019-2020
Movements	420	493	353	361	444	436	362	475	624	820	800	817	6,403	20,889	30.7%	48%

	2020	2021
Movements	8,242	7,504

Enforcement

Enforcement Investigations

2020 vs. 2021

Noise Abatement Procedures

- All arrival and departure operations are monitored for compliance with the Noise Abatement procedures using rules set in the Airport Noise and Operations System
- Reviews the data that Transport Canada collects through the Civil Aviation Daily Occurrence Reporting System (CADORS). These reports are reviewed by enforcement on a daily basis

Night Flight Restriction Program

- All flights that operate during the Restricted Hours (12:30 a.m. - 6:29 a.m.) are verified against night flight schedule and day of operations approvals

Formal Investigation

- When there is evidence that a non-compliance to the Night Flight Restriction Program or Noise Abatement Procedures occurred, the GTAA investigates the event and forwards the complete details of the investigation along with all supporting evidence to Transport Canada Enforcement Office.
- Transport Canada publishes infractions for which a corporate entity is responsible [here](#).

Type	2020		2021	
	GTAA Investigations	Sent to Transport Canada	GTAA Investigations	Sent to Transport Canada
Night Flight Restriction Program	45	25	111	2
Noise Abatement Procedures	24	21	16	3
Total	69	46	127	5

Early Turn Trial

Background of the Trial

On March 3, 2008, two early turn trials were introduced at Toronto Pearson.

North-South Early Jet Turns

- Specific small jet aircraft permitted to turn to course shortly after take-off on the east-west runways between 7:00 a.m. and 11:00 p.m. This is standard procedure since 2005
- As part of the Trial, early turns are permitted on the north-south runways

Propeller Turns Extended Hours

- Propeller aircraft are permitted to turn to course shortly after take-off from any runway between the hours of 7:00 a.m. and 11:00 p.m. This is standard procedure since the 1970s
- As part of the trial, prop turns are also permitted from 6:30 a.m. to 6:59 a.m. and from 11:01 p.m. to 11:30 p.m.

Early Turns: North-South Jets

Statistics – Jets (North-South)			
Month	Eligible Aircraft	Actual Early Turns	Complaints
January	13	3	1
February	7	1	0
March	20	3	3
April	66	13	3
May	80	7	4
June	102	17	4
July	214	15	4
August	65	5	1
September	40	3	0
October	131	14	4
November	33	3	0
December	46	6	1

From January to December 2021:

- 90 eligible jet aircraft (11%) made early turns on the north/south runways
- 25 complaints are attributed to this trial

From March 3, 2008 to December 31, 2021:

- 3,363 eligible jet aircraft (15.8%) made early turns on the north/south runways
- 233 complaints are attributed to this trial

Early Turns: Propeller Extended Hours

Statistics – Propellers (Extended Hours)						
Month	6:30 to 6:59 a.m.			11:01 to 11:30 p.m.		
	Eligible Aircraft	Early Turns	Complaints	Eligible Aircraft	Early Turns	Complaints
January	2	1	1	4	1	0
February	5	4	2	1	0	0
March	17	13	5	4	3	0
April	11	10	2	1	1	0
May	14	11	6	2	1	0
June	15	10	1	5	0	0
July	13	10	4	4	2	1
August	13	9	4	15	12	3
September	11	11	7	8	6	0
October	10	9	3	11	6	0
November	12	10	4	29	15	4
December	8	8	2	31	22	5

From January to December 2021:

- 106 props (80.9%) turned between 6:30 and 6:59 a.m.
- 69 prop (60%) turned between 11:01 and 11:30 p.m.
- 54 complaints are attributed to this trial

From March 3, 2008 to December 31, 2021:

- 4,952 props (83%) turned between 6:30 and 6:59 a.m.
- 12,900 props (80.8%) turned between 11:01 and 11:30 p.m.
- 1,278 complaints are attributed to this trial