

Toronto Pearson
Noise Management Forums
Neighbourhood Table Ad-hoc Briefing

March 11, 2020

March 17, 2020



Welcome + Introductions

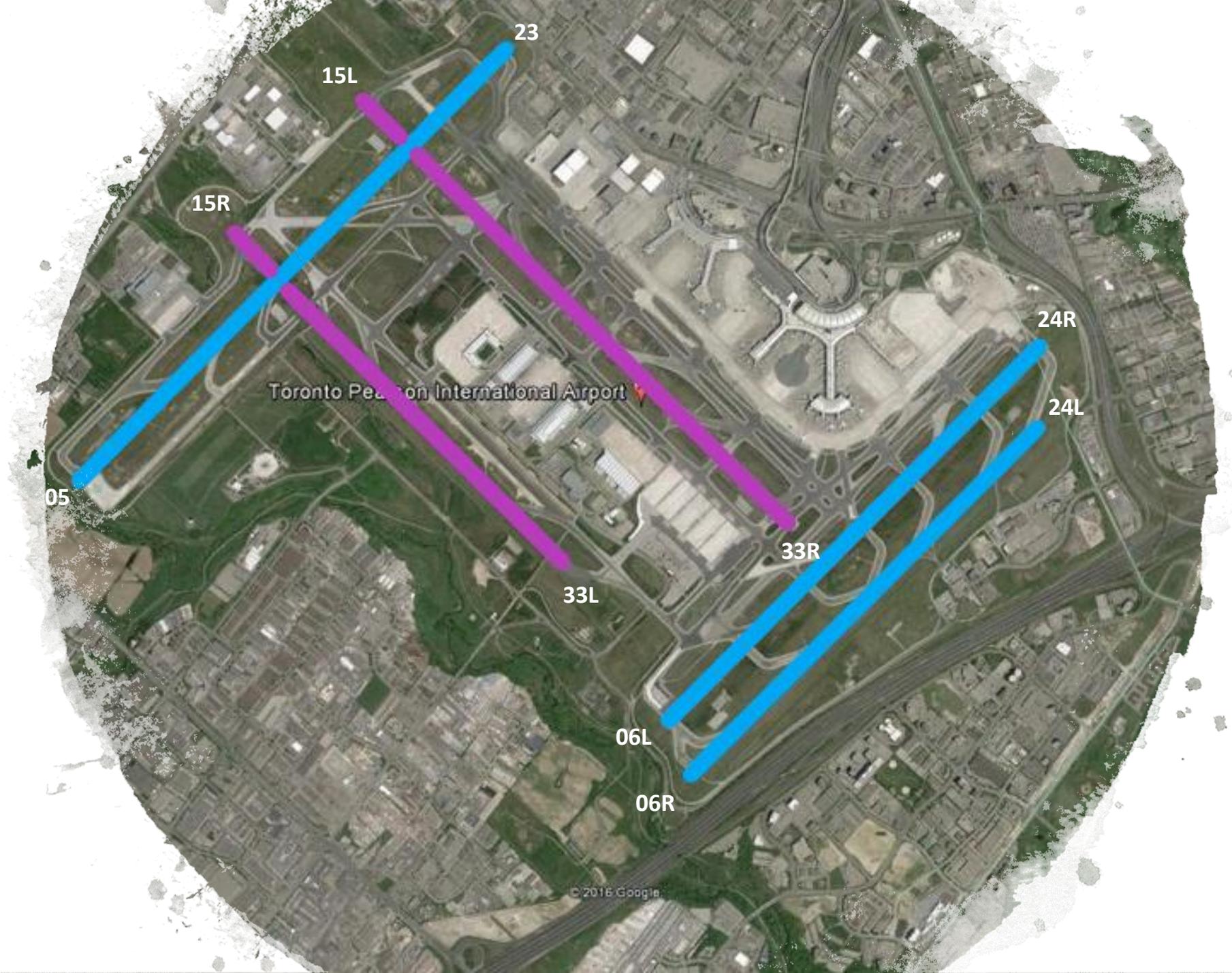
Please note this is an
ad-hoc briefing with
the intent to give an
update on
ongoing
developments

Agenda

- 2020 Airside Capital Maintenance Projects
- Trial – Updated Nighttime Preferential Runway System
- Runway Selection Criteria Update

2020 Airside Maintenance Projects

Keeping our airfield in top condition



Toronto Pearson International Airport

23

15L

15R

24R

24L

05

33R

33L

06L

06R

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East-West
North-South

Capital Maintenance

- At Toronto Pearson we ensure that the airfield at Canada's busiest airport is kept in top condition. We use a program of regularly scheduled capital maintenance to do this
- Like roads and highways, our runways and taxiways need regular maintenance to keep them safe
- Each year a project schedule is developed for Spring through Fall that will accommodate the capital maintenance work slated for that year
- Airside capital maintenance shouldn't be confused with routine runway maintenance – such as electrical work and lighting tests – which continues to happen on a regular basis and is published weekly on our Noise Advisories web page

Planning considerations

Below are some considerations when planning for maintenance projects:

- **Seasonal limitations** – As with road and highway maintenance, the season for airport maintenance work is limited to Spring through Fall.
- **Safety and operational integrity** – The 2020 workplan has been developed for the purpose of maintaining the surfaces on taxiways and runways to ensure continued safe and efficient operation of aircraft traffic. This work is not related to airport expansion.
- **Impacts** – Impacts for surrounding communities, airlines and passengers have been a major consideration when planning this work.

Where possible, work is combined to reduce the number of closures required and scheduled for times when traffic levels are lowest to limit impacts for airlines, passengers and surrounding communities. However, due to the short season and the required work, impacts can't be entirely avoided.

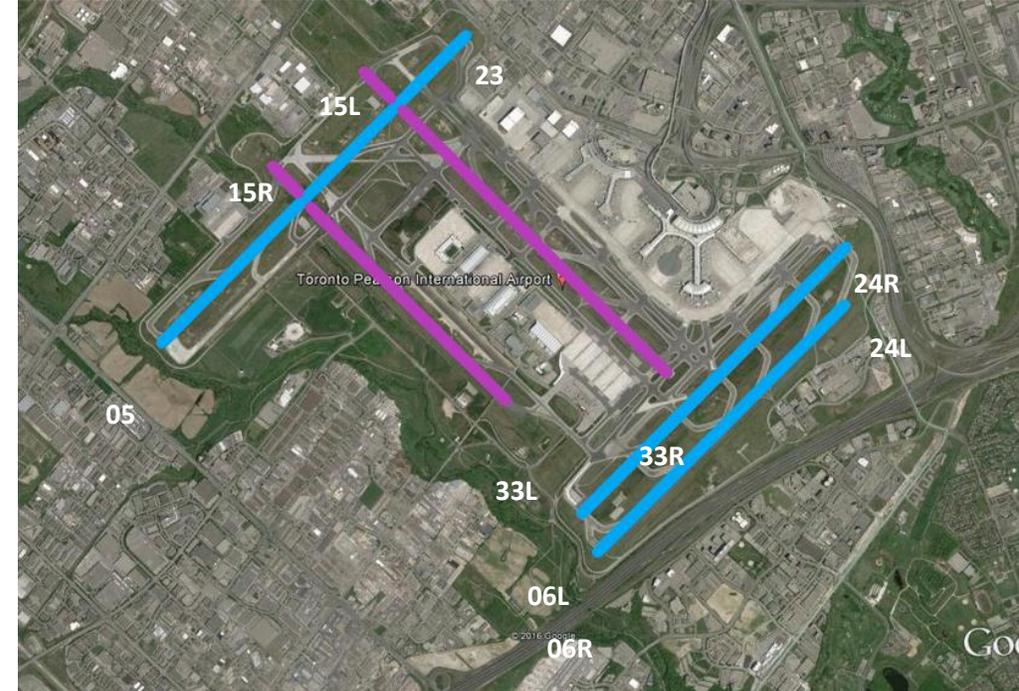
Types of Impacts

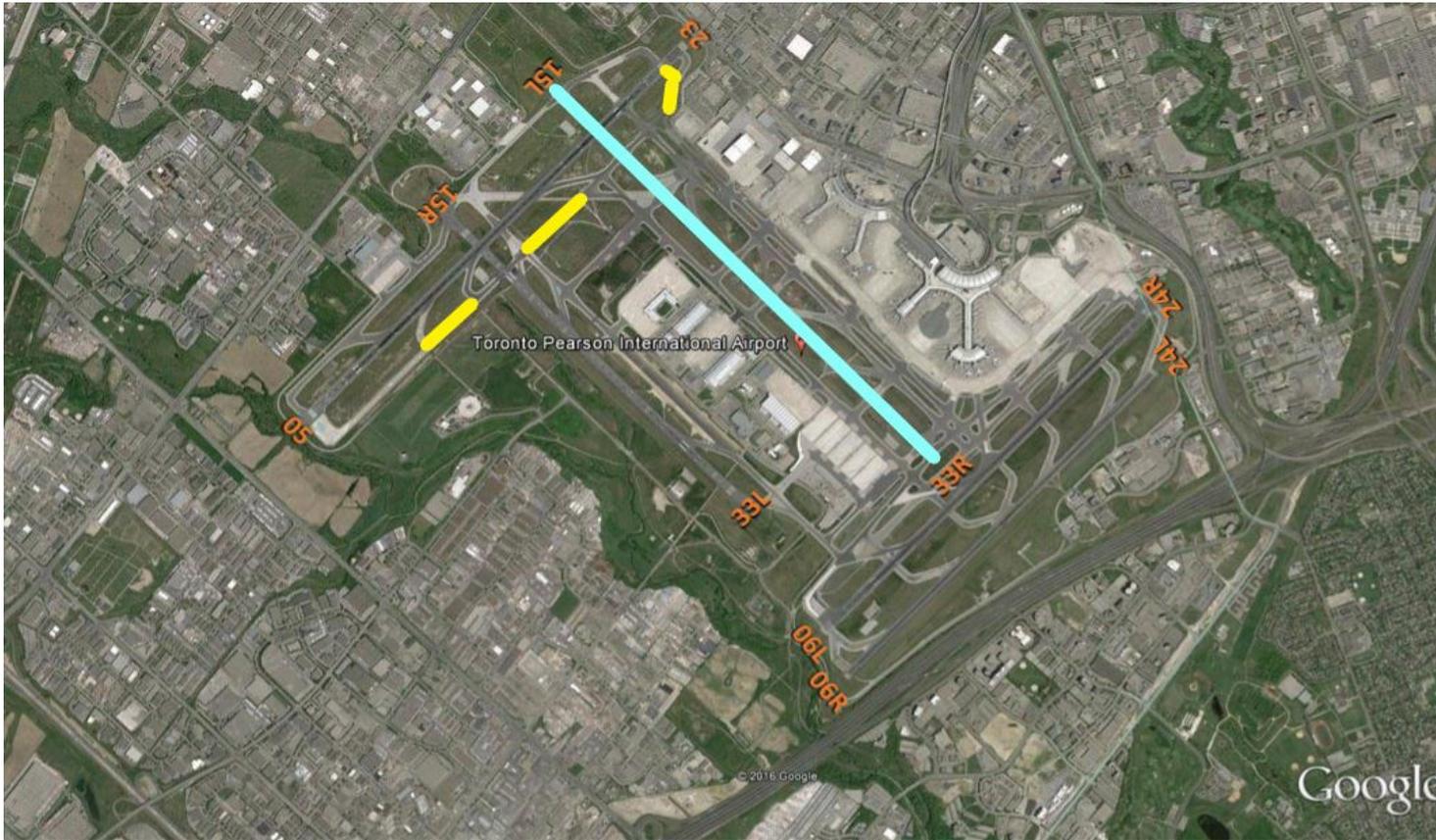
Impacts during regular hours – regular hours are defined as 6:30 a.m. to midnight. While traffic levels vary throughout this period, levels are higher than they are in the nighttime and runway operations are **configured** to best meet the traffic demand. The following ranks configurations for their capacity to meet traffic demand:

1. Easterly 05, 06L and 06R / Westerly 23, 24L and 24R
2. Easterly 05 and 06L or 05 and 06R / Westerly 23 and 24L or 23 and 24R
3. Northerly 33L and 33R / Southerly 15L and 15R
4. Mixed land 06L/R or 24L/R, depart 33R

When 05/23 is unavailable during regular hours, a northerly or southerly configuration is often required to meet traffic demand.

Impacts during nighttime hours – Between midnight and 6:30 a.m., traffic levels are lower than during regular hours. Toronto Pearson has a preferential runway system in effect designed to minimize the number of people exposed to nighttime noise. The system includes contingency maintenance runways for use when preferential runways are affected by nighttime maintenance.





Main scope of Work:

- Rebuilding of Taxiway H (3 parts)
- Rehabilitation of Runway 15L/33R

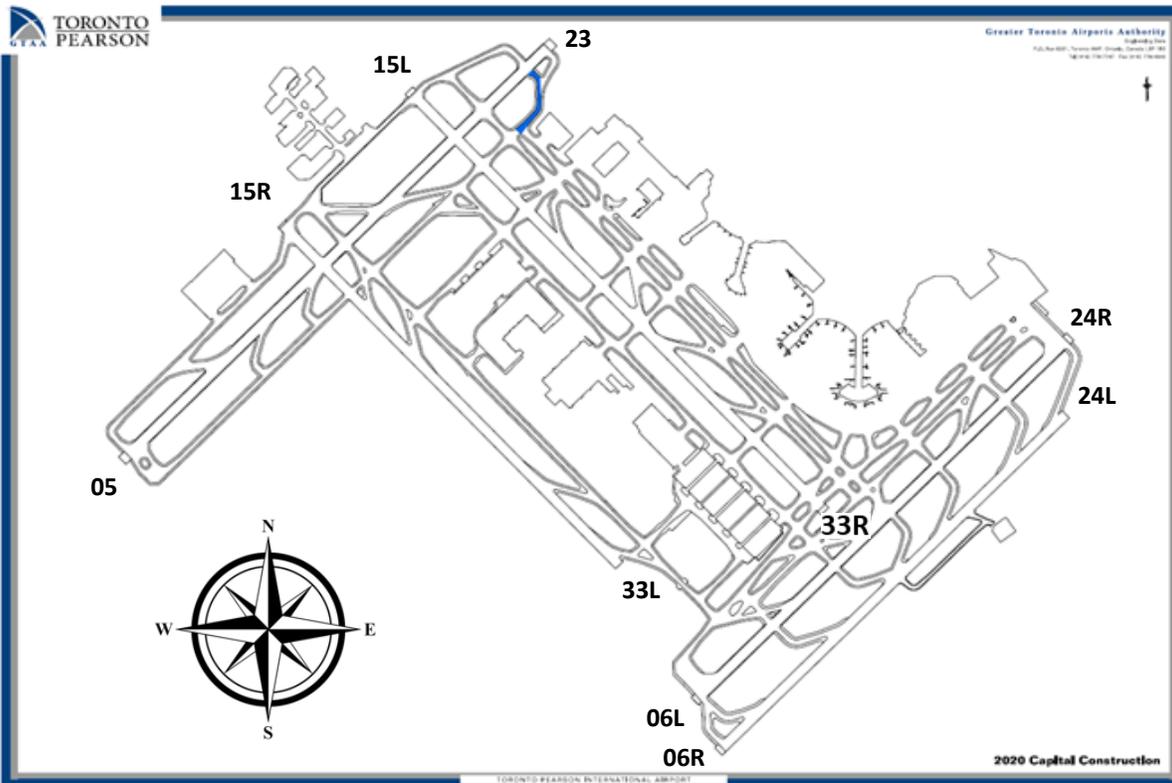
2020 Airside Maintenance Projects

Information on the next slides includes predicted operational contingencies for each maintenance project based on available information. Please note that airport operations are dynamic and can be affected by many conditions such as weather, safety, and traffic levels.

Project 1: Rebuilding Taxiway H – Phase 1

Date: Late April to late June

Time: Regular hours and overnight



The Work:

- Replacement of concrete slabs on Taxiway H (highlighted area)
- Runway 05/23 departures will be shortened to 9,058ft for departures

Project 1: Rebuilding Taxiway H – Phase 1

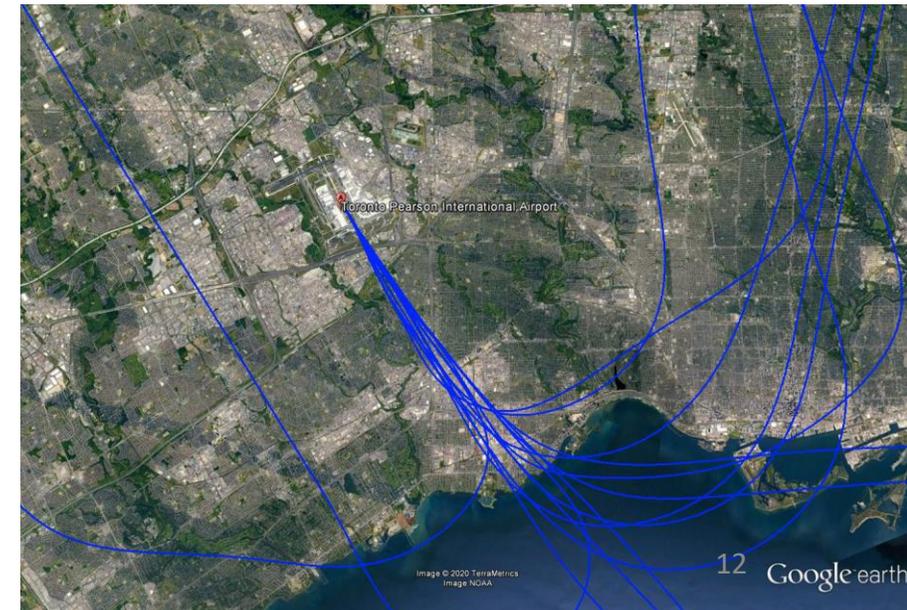
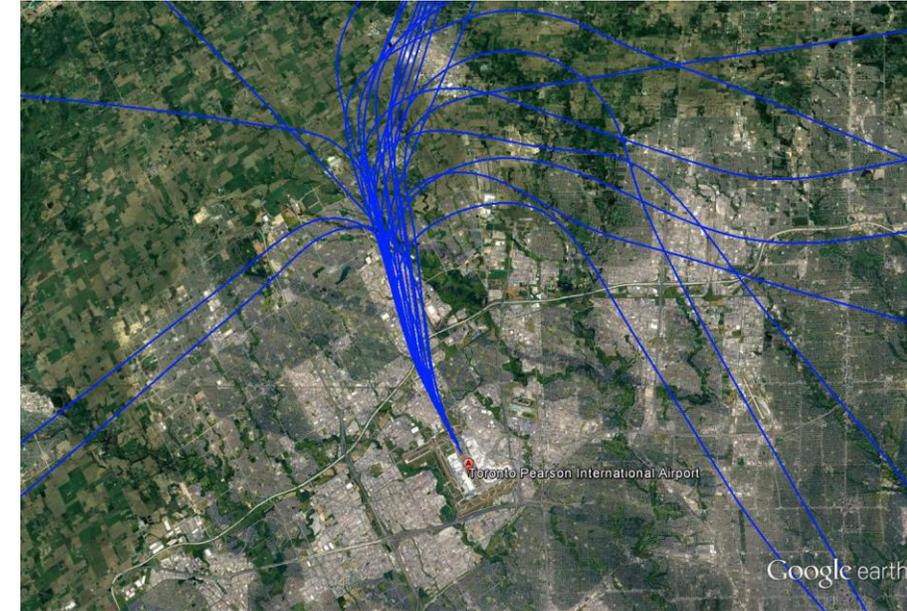
Date: Late April to late June

Time: 6:30 a.m. to midnight

Due to shortened 05/23 for departures, possible increased usage of Runway 15L and 33R for one-off departures of large aircraft requiring extra length

Affects residents living in areas directly north and south of the airport:

- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville
- *Note phase 2 operations and impacts occur within phase 1 period (next slides)*



Project 1: Rebuilding Taxiway H – Phase 1

Date: **Late April to late June**

Time: **Midnight - 6:30 a.m.**

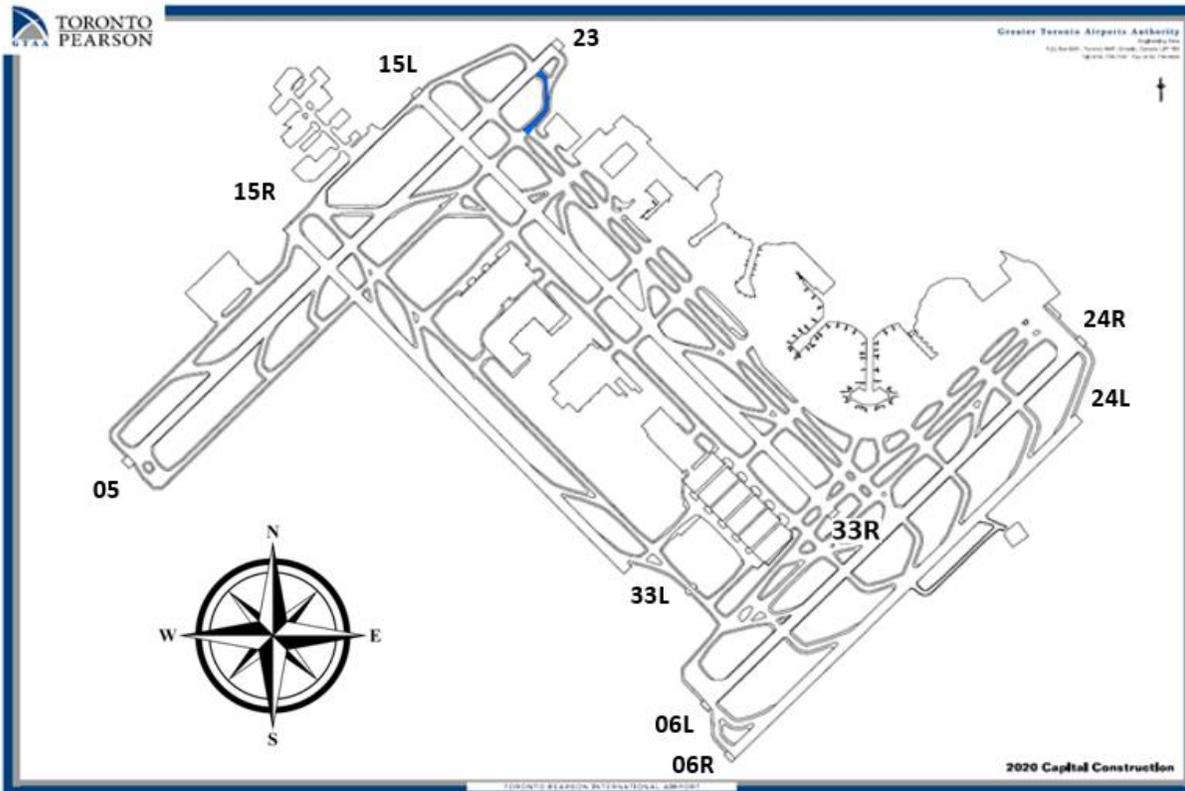
Preferential runways will be available overnight so no additional impacts expected midnight to 6:30 a.m.

- *Note phase 2 operations and impacts occur within phase 1 period (next slides)*

Project 1: Rebuilding Taxiway H – Phase 2

Date: Early to mid-June (14 nights)

Time: 10:30 p.m. – 6:30 a.m.



The Work

- Replacement of concrete slabs on Taxiway H (highlighted area)
- **This phase of the taxiway work involves a nightly closure of Runway 05/23**

Project 1: Rebuilding Taxiway H – Phase 2

Date: Early to mid-June (14 nights)

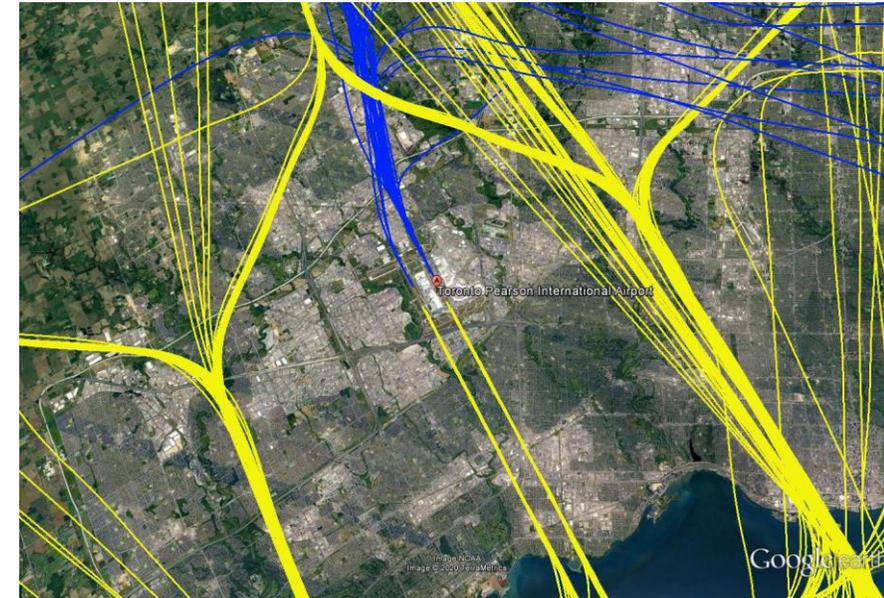
Time: 10:30 p.m. – midnight

Reduced capacity on east/west runways, due to the nightly closure of Runway 05/23, will require north/south operations.

- Arrivals on 33L and departures on 33R, some arrivals on 33R
- Arrivals on 15L and departures 15R, some arrivals on 15R, some departures 15L

Affects residents living in areas directly north and south of the airport:

- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville



Project 1: Rebuilding Taxiway H – Phase 2

Date: Early to mid-June (14 nights)

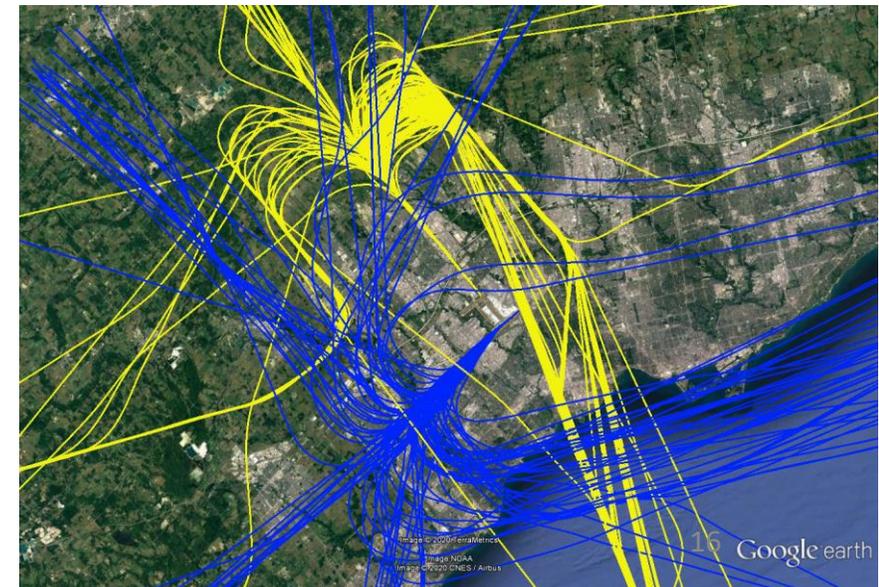
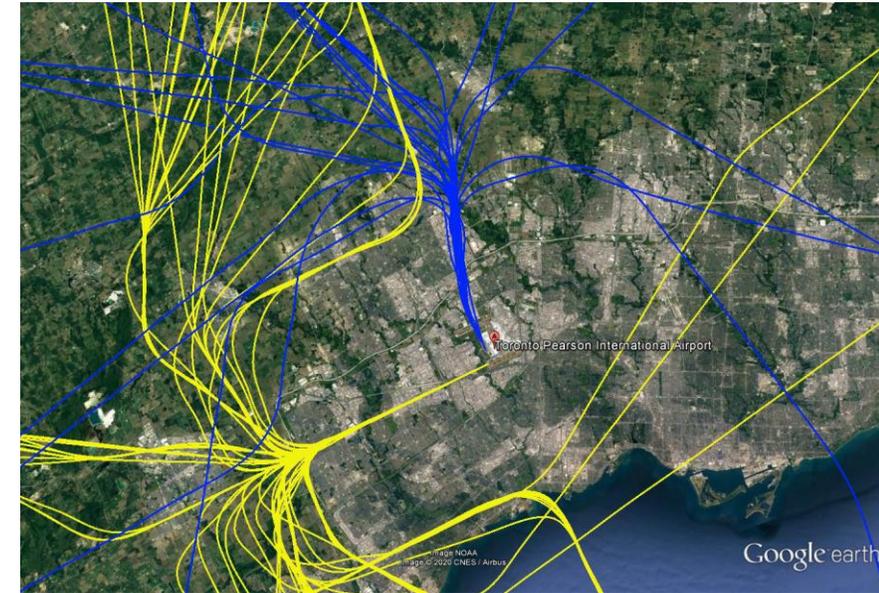
Time: midnight – 6:30 a.m.

Increased usage of maintenance contingency preferential runways

- **Arrivals on 06L and departures on 33R**
- **Arrivals on 15L and departures on 24R**
- Arrivals on 15L and departures on 15L if needed for long haul flights due to length.
- Arrivals and departures on 06L or 24R if needed due to winds

Affects residents living in areas directly west and north of the airport aligned with these runways:

- **West** – Mississauga-Malton, Mississauga East-Cooksville, Mississauga Streetsville, Mississauga-Erin Mills, Milton
- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton



Project 1: Rebuilding Taxiway H – Phase 2

Date: Early to mid-June (14 nights)

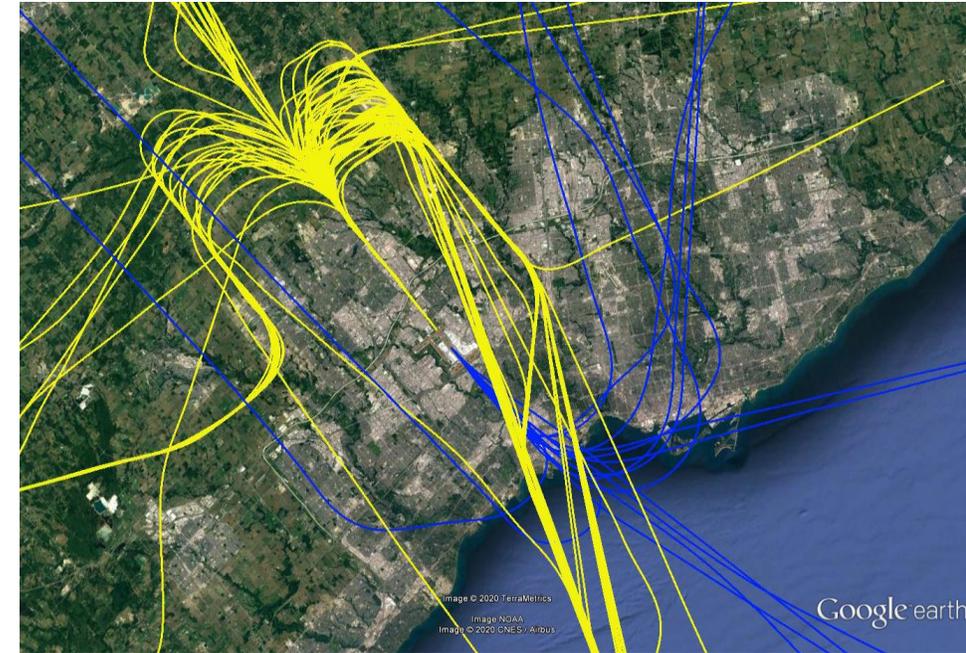
Time: midnight – 6:30 a.m.

Increased usage of maintenance contingency preferential runways:

- Arrivals on 06L and departures on 33R
- Arrivals on 15L and departures on 24R
- **Arrivals on 15L and departures on 15L if needed for long haul flights due to length.**
- Arrivals and departures on 06L or 24R if needed due to winds

Affects residents living in areas directly east and west of the airport aligned with these runways:

- **North** –Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville



Project 1: Rebuilding Taxiway H – Phase 2

Date: Early to mid-June (14 nights)

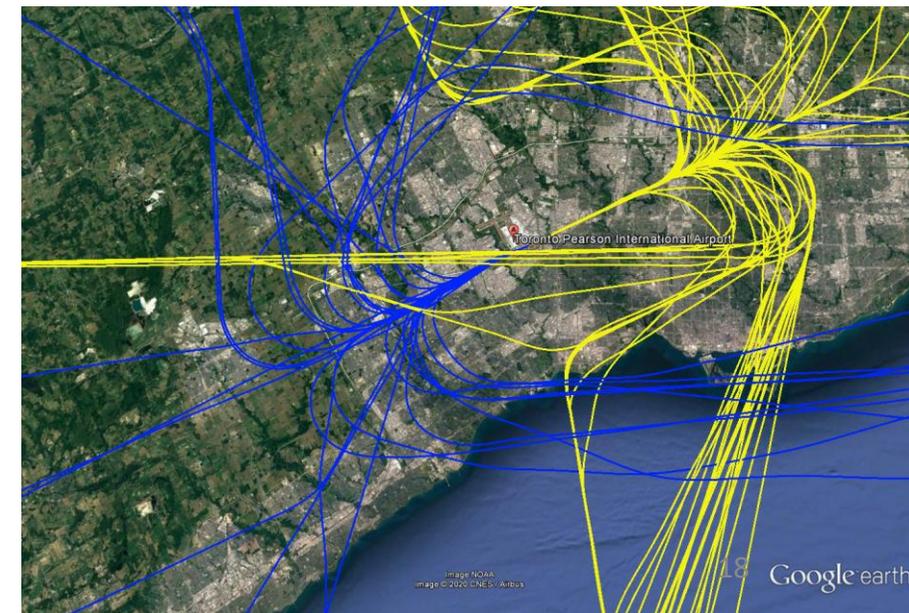
Time: midnight – 6:30 a.m.

Increased usage of maintenance contingency preferential runways:

- Arrivals on 06L and departures on 33R
- Arrivals on 15L and departures on 24R
- Arrivals on 15L and departures on 15L if needed for long haul flights due to length.
- **Arrivals and departures on 06L or 24R if needed due to winds**

Affects residents living in areas directly east and west of the airport aligned with these runways:

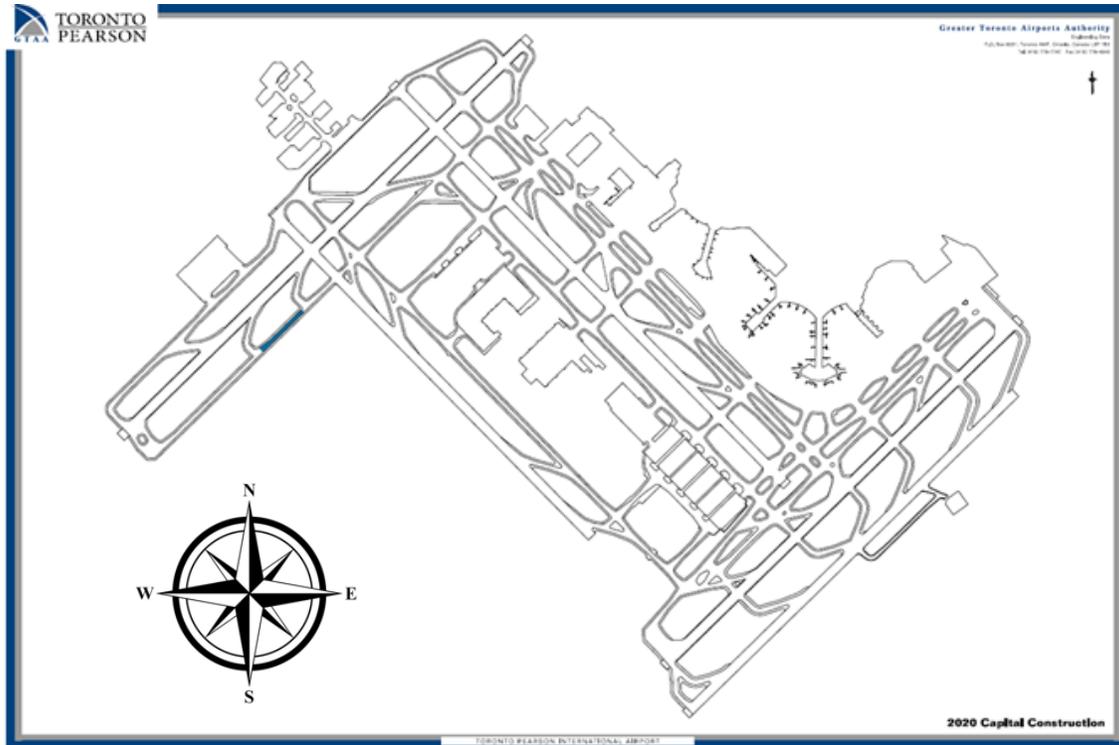
- **East** – Etobicoke North, Etobicoke Centre, Humber River Black Creek, York Centre, Willowdale, Don Valley North, Markham-Thornhill
- **West** – Mississauga-Malton, Mississauga East-Cooksville, Mississauga-Streetsville, Mississauga-Erin Mills, Milton



Project 1: Rebuilding Taxiway H – Phase 3

Date: 14 days in September (exact dates TBD)

Time: 6:30 a.m. – midnight
midnight – 6:30 a.m.



The Work

Continued repairs on Taxiway H

This phase of work affects access to/from Runway 05/23 for both arriving and departing aircraft.

Project 1: Rebuilding Taxiway H – Phase 3

Date: September

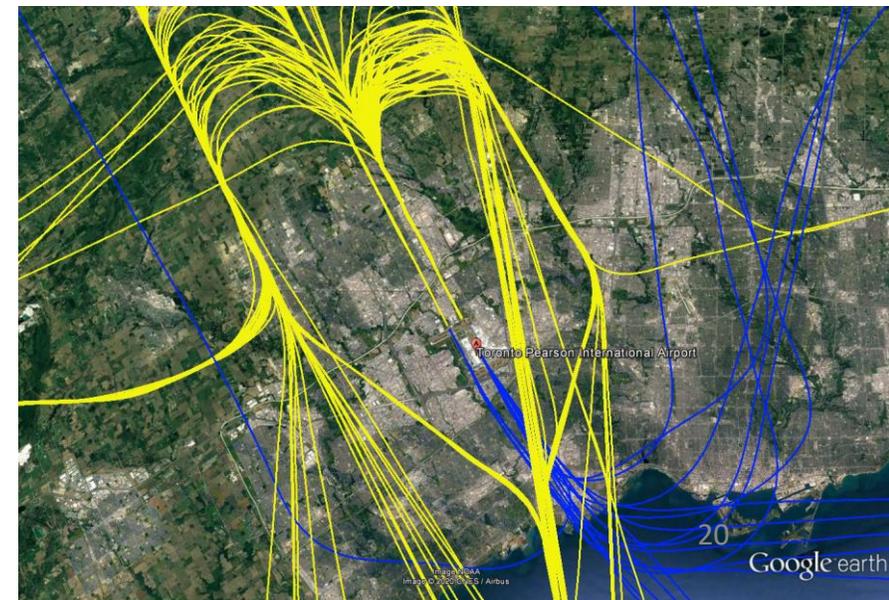
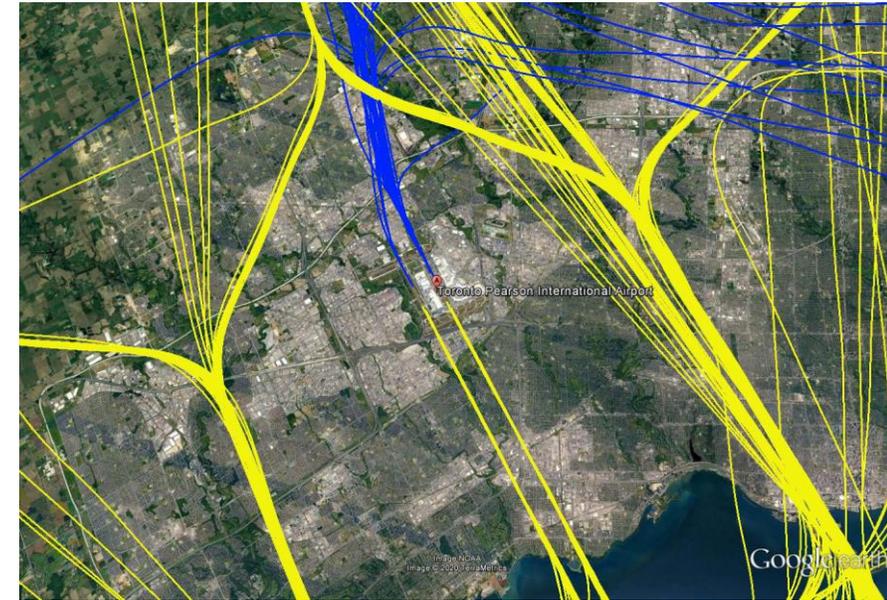
Time: 6:30 a.m. – midnight

Reduced capacity on east/west runways, due to the limited access to Runway 05/23, will require north/south operations.

- Arrivals on 33L and departures on 33R, some arrivals on 33R
- Arrivals on 15L and departures 15R, some arrivals on 15R, some departures 15L

Affects residents living in areas directly north and south of the airport:

- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville



Project 1: Rebuilding Taxiway H – Phase 3

Date: September

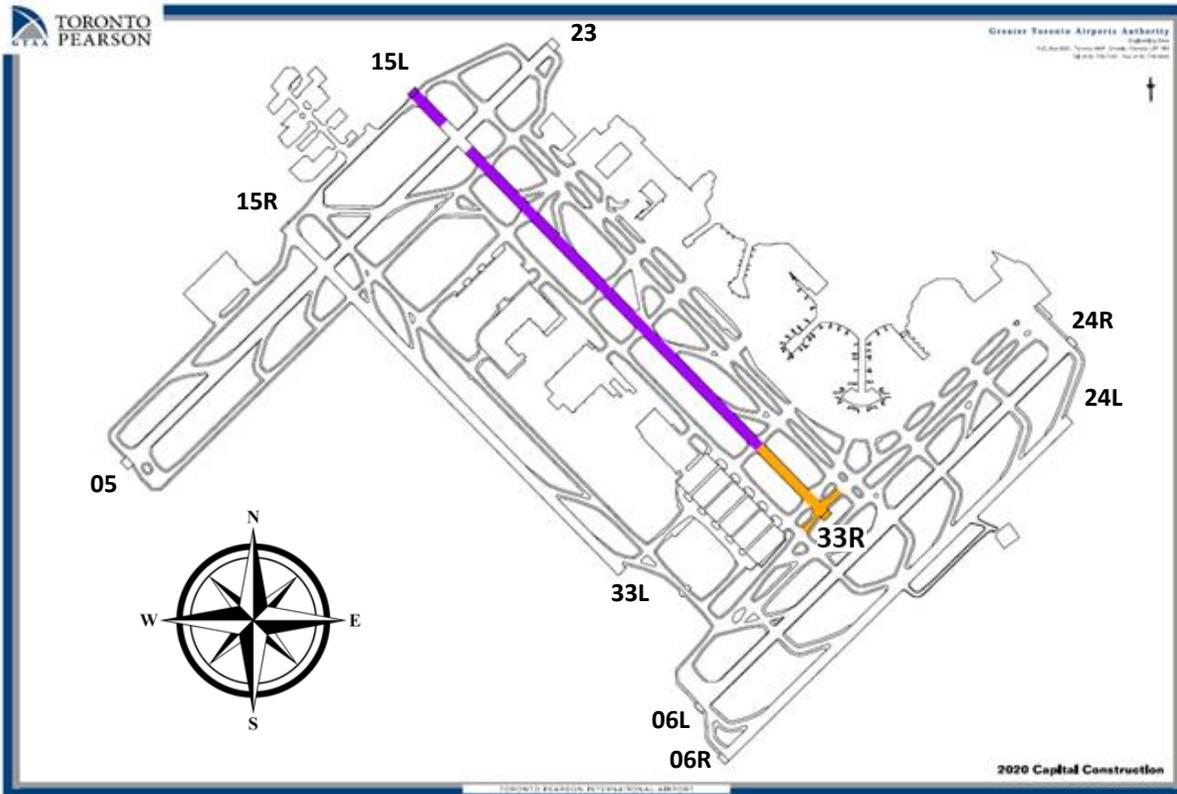
Time: Midnight - 6:30 a.m.

Preferential runways will be available overnight so no additional impacts expected midnight to 6:30 a.m.

Project 2: Rehabilitation of Runway 15L/33R - Phases 1 & 2

Date: Late June to late July

Time: 6:30 a.m. – midnight
midnight – 6:30 a.m.



The Work

- Full length mill and pave of the runway to maintain a safe and stable surface
- This runway will not be available for use, however if required due to weather can be recalled with 48-hour notice

Project 2: Rehabilitation of Runway 15L/33R - Phases 1 & 2

Date: Late June to late July

Time: 6:30 a.m. – midnight

Typical east/west operation expected.

The following are two scenarios for north/south runway operations during this project:

1) Weather is predicted 48 hours in advance or more that would require a north/south runway operation.

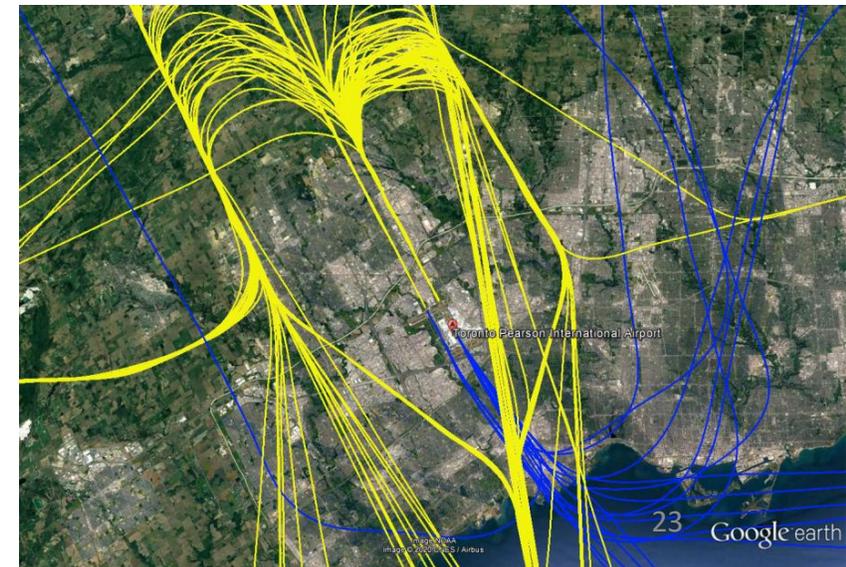
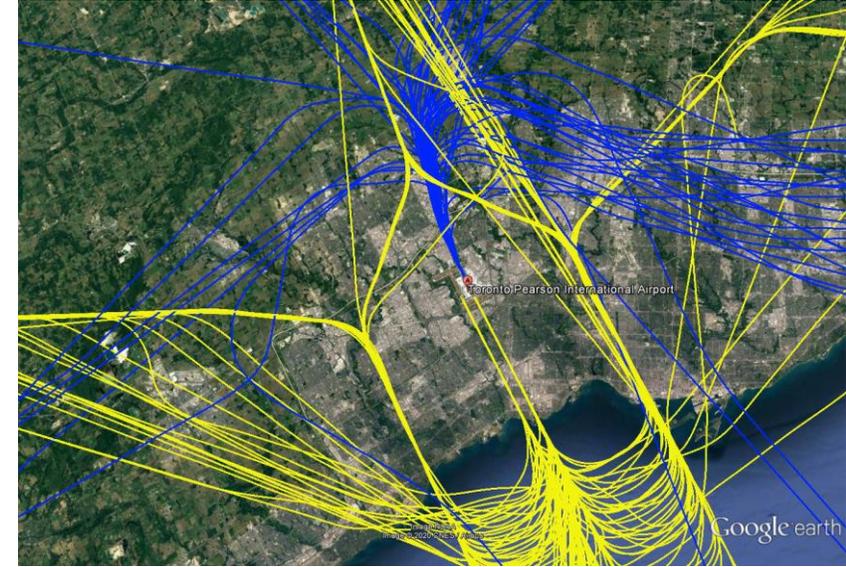
- **In this case, the rehabilitation work would be suspended for the expected duration of the weather event. Runway 15L/33R would be made available allowing for a typical north/south runway operation.**

2) Weather requiring, a north/south operation is predicted *within* 48 hours.

- In this case, Runway 15L/33R could not be recalled with such short notice. Runway 15R/33L only would be used for north/south operations.
- Note that this runway is used during regular north/south runway operations, but in combination with 15L/33R.

Affects residents living in areas directly north and south of the airport aligned with these runways:

- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville



Project 2: Rehabilitation of Runway 15L/33R - Phase 1 &2

Date: Late June to late July

Time: 6:30 a.m. – midnight

The following are two scenarios for north/south runway operations during this project:

1) Weather is predicted 48 hours in advance or more that would require a north/south runway operation.

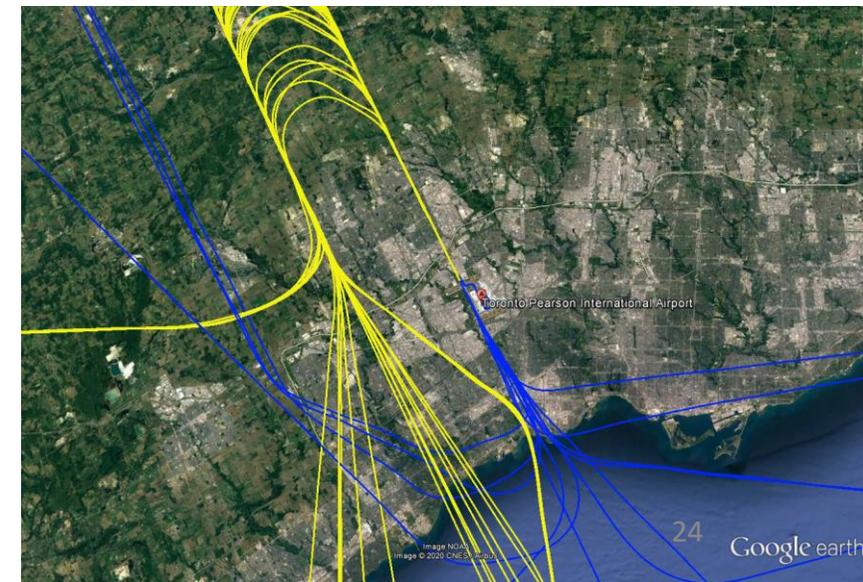
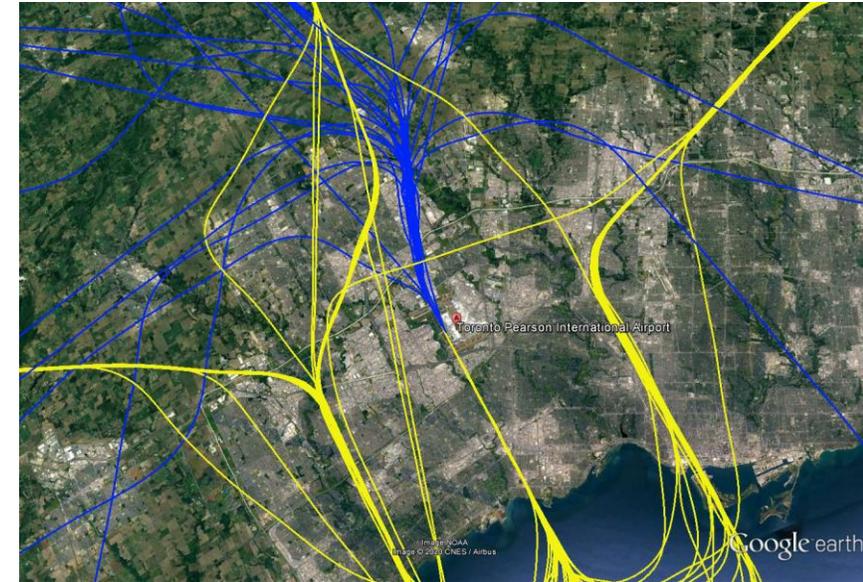
- In this case, the rehabilitation work would be suspended for the expected duration of the weather event. Runway 15L/33R would be made available allowing for a typical north/south runway operation.

2) Weather requiring a north/south operation is predicted *within* 48 hours.

- **In this case, Runway 15L/33R could not be recalled with such short notice. Runway 15R/33L only would be used for north/south operations.**
- Note that this runway is used during regular north/south runway operations, but in combination with 15L/33R.

Affects residents living in areas directly north and south of the airport aligned with runways 15R/33L:

- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville



Project 2: Rehabilitation of Runway 15L/33R - Phases 1 & 2

Date: Late June to late July

Time: midnight – 6:30 a.m.

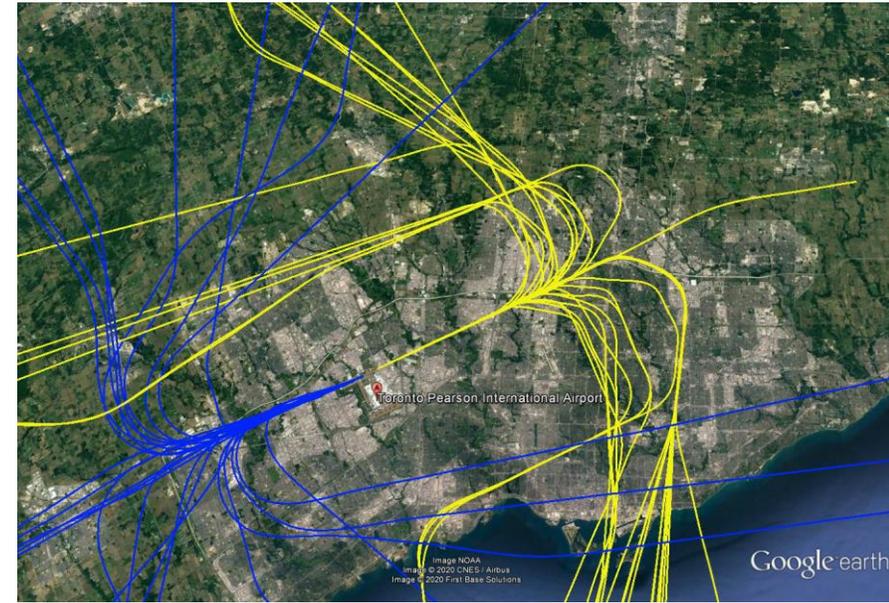
Increased usage of maintenance contingency preferential runways.

Anticipated nighttime runway configurations:

- Arrivals and departures on 05 or 23
- Arrivals and departures on 15R or 33L if required by winds

Affects residents living in areas directly east and west of the airport aligned with these runways:

- **East** – Etobicoke North, Humber River Black Creek, Vaughan Woodbridge, Willowdale, Thornhill, Richmond Hill, Markham Unionville
- **West** – Mississauga Malton, Mississauga-Streetsville, Mississauga-Erin Mills, Brampton South, Milton



Project 2: Rehabilitation of Runway 15L/33R - Phases 1 & 2

Date: Late June to late July

Time: midnight – 6:30 a.m.

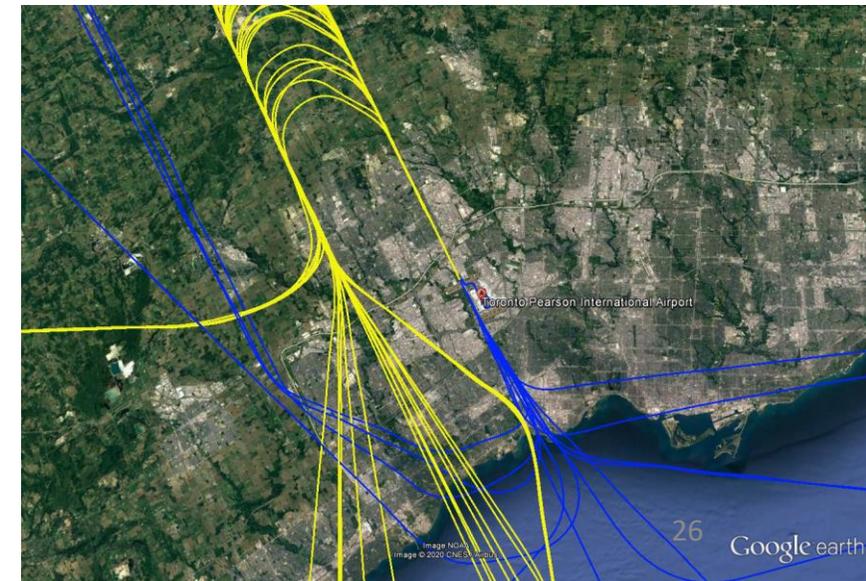
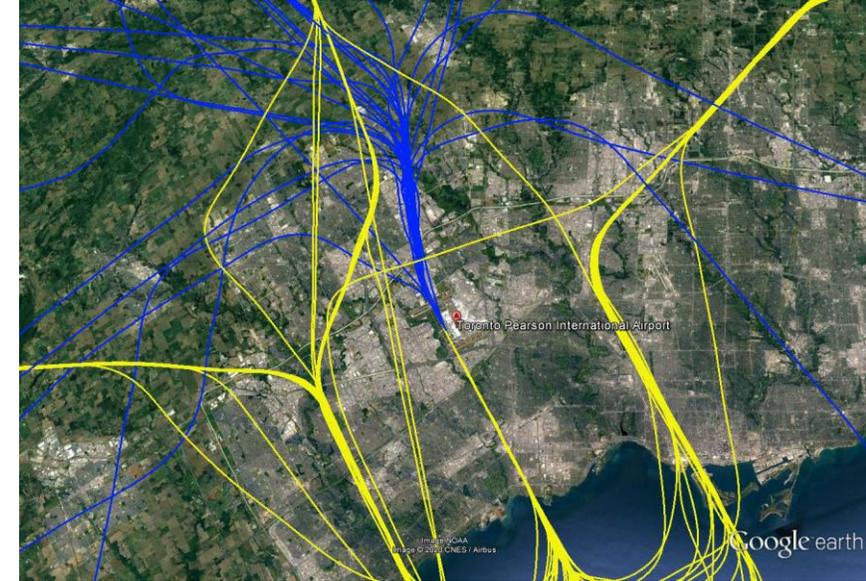
Increased usage of maintenance contingency preferential runways

Anticipated nighttime runway configurations:

- Arrivals and departures on 05 or 23
- **Arrivals and departures 15R or 33L if required by winds**

Affects residents living in areas directly north and south of the airport aligned with Runway 15R/33L:

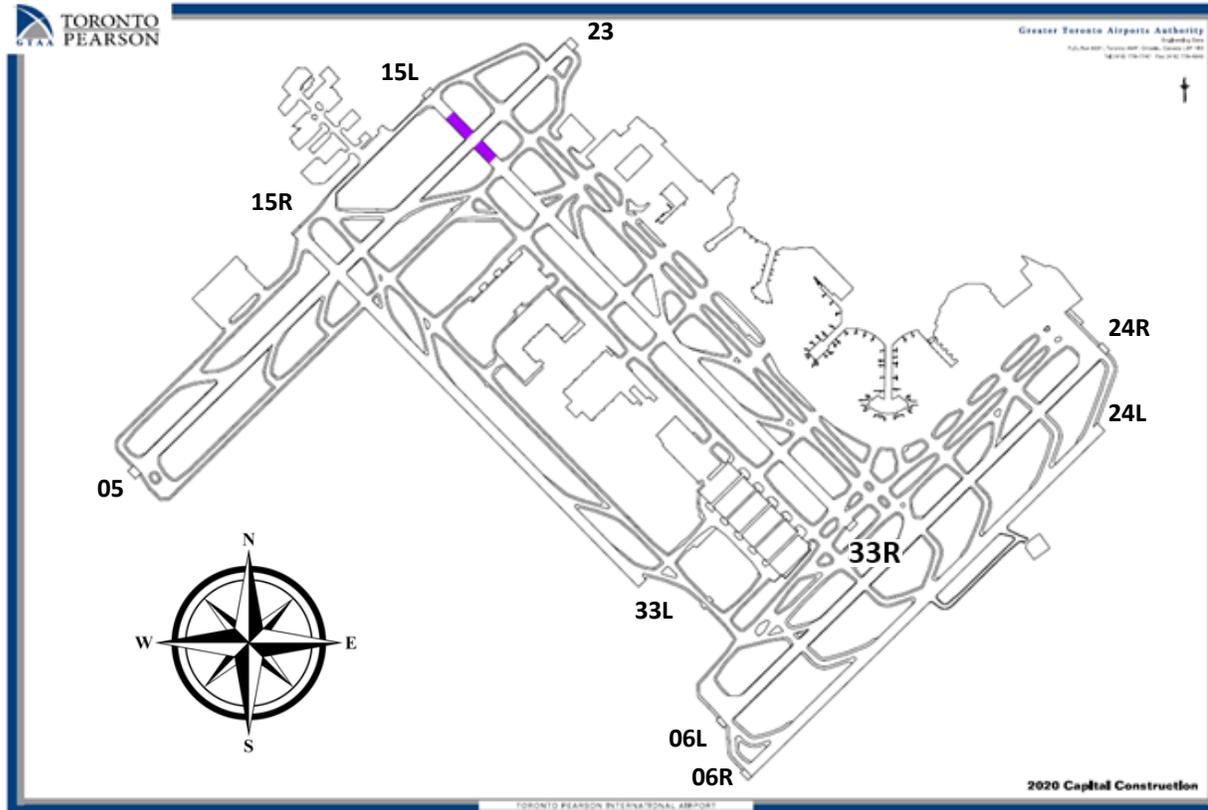
- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke Lakeshore, Mississauga East-Cooksville



Project 2: Rehabilitation of Runway 15L/33R - Phase 3

Date: *August (TBD), 10-14 nights duration

Time: 10:30 p.m. to 6:30 a.m.



The Work

- Mill and pave work at the intersection of Runway 05/23 and Runway 15L/33R (highlighted area)
- Full closure of Runway 05/23 and Runway 15L/33R
- *This work cannot start until the rest of the 15L/33R work is complete

Project 2: Rehabilitation of Runway 15L/33R - Phase 3

Date: August TBD

Time: 10:30 p.m. – midnight

- The following configurations are likely:
 - **Arrivals on 06L/R and departures on 33L**
 - **Arrivals 24L/R and departures on 33L**
 - Arrivals and departures on 06L/R or 24L/R
 - Arrivals and departures on 15R or 33L if required due to winds

Affects residents living in areas directly east and west of the airport aligned with these runways:

- **East** – Etobicoke North, Etobicoke Centre, Humber River Black Creek, York Centre, Willowdale, Don Valley North, Markham-Thornhill, Markham-Unionville
- **West** – Mississauga Malton, Mississauga East-Cooksville, Mississauga-Streetsville, Mississauga-Erin Mills, Mississauga-Centre, Milton



Project 2: Rehabilitation of Runway 15L/33R - Phase 3

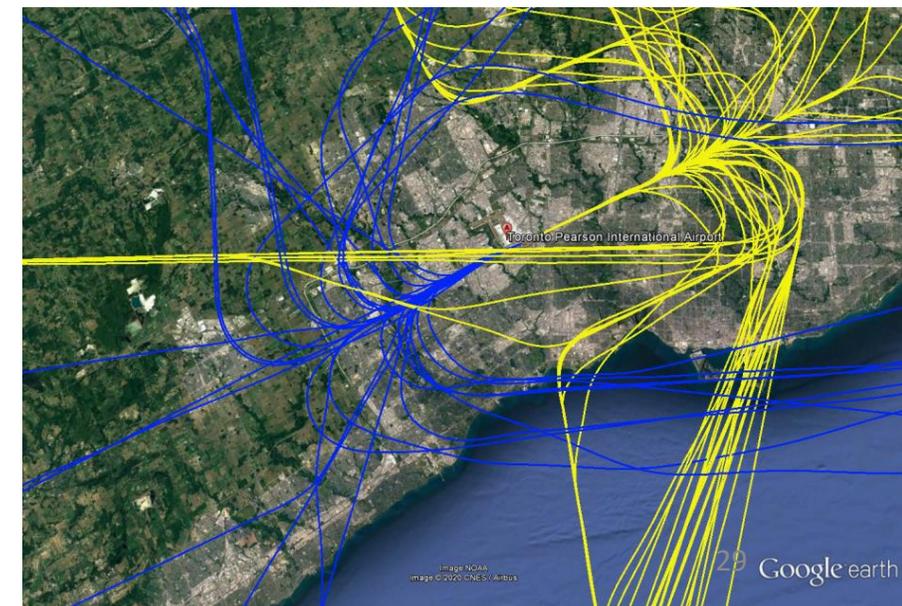
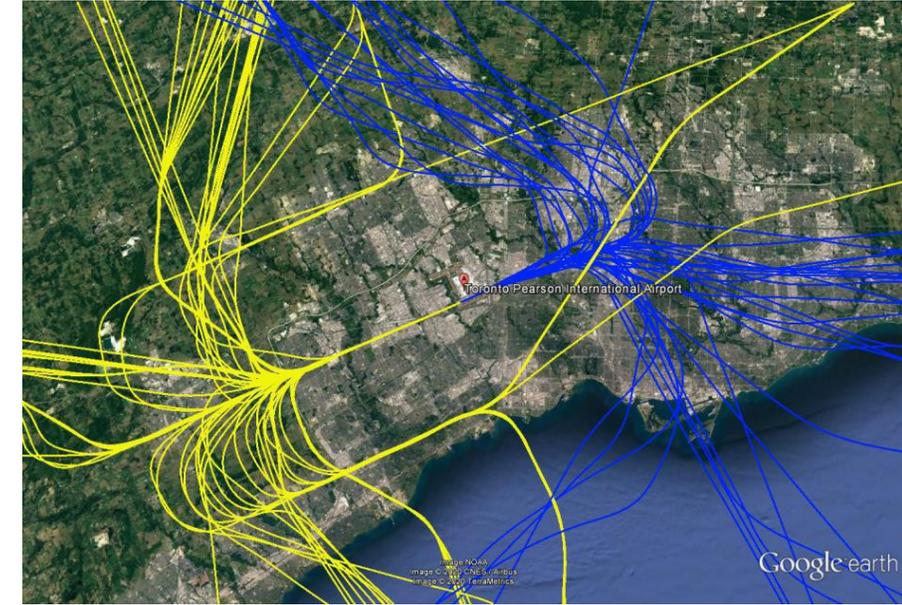
Date: August TBD

Time: 10:30 p.m. – midnight

- The following configurations are likely:
 - Arrivals on 06L/R and departures on 33L
 - Arrivals 24L/R and departures on 33L
 - **Arrivals and departures on 06L/R or 24L/R**
 - Arrivals and departures on 15R or 33L if required due to winds

Affects residents living in areas directly east and west of the airport aligned with these runways:

- **East** – Etobicoke North, Etobicoke Centre, Humber River Black Creek, York Centre, Willowdale, Don Valley North, Markham-Thornhill, Markham-Unionville
- **West** – Mississauga Malton, Mississauga East-Cooksville, Mississauga-Streetsville, Mississauga-Erin Mills, Mississauga-Centre, Milton



Project 2: Rehabilitation of Runway 15L/33R - Phase 3

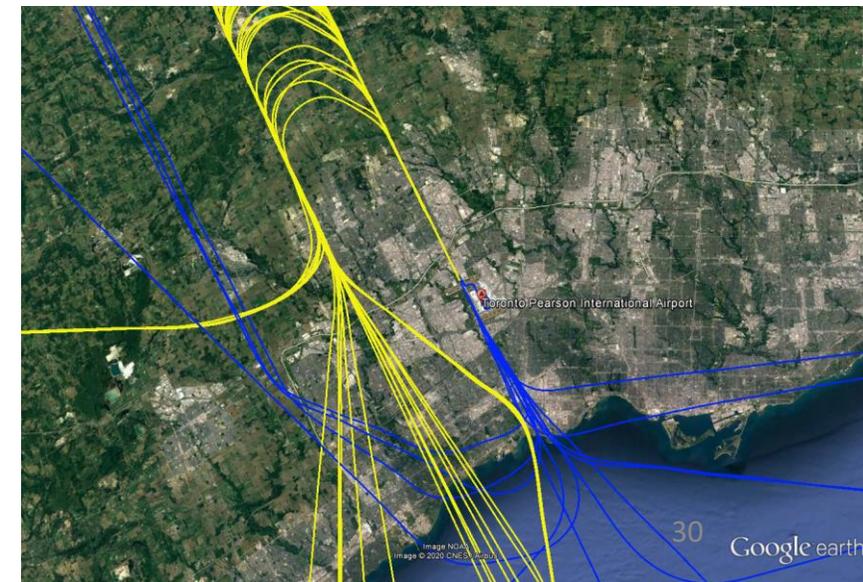
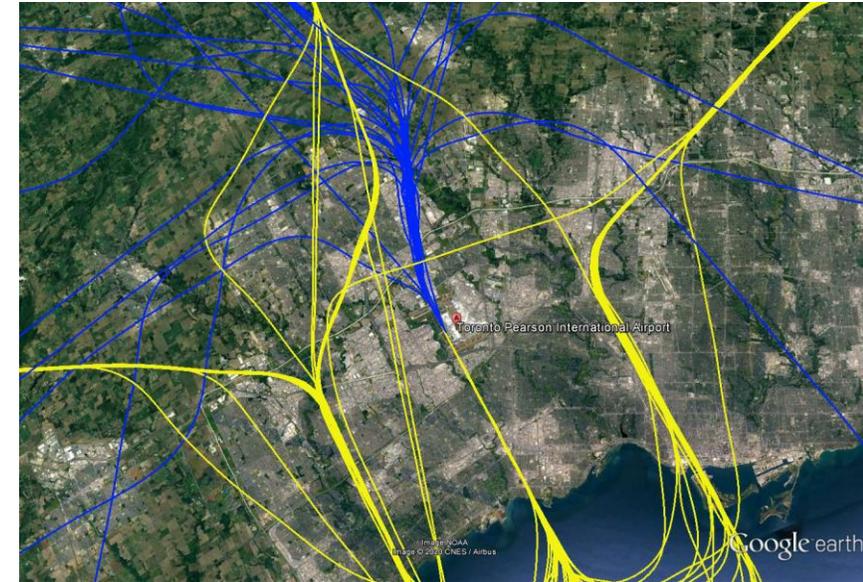
Date: August TBD

Time: 10:30 p.m. – midnight

- The following configurations are likely:
 - Arrivals on 06L and departures on 33L
 - Arrivals 24R and departures on 33L
 - Arrivals and departures on 06L or 24R
 - **Arrivals and departures on 15R or 33L if required due to winds**

Affects residents living in areas directly north and south of the airport aligned with these runways:

- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville



Project 2: Rehabilitation of Runway 15L/33R - Phase 3

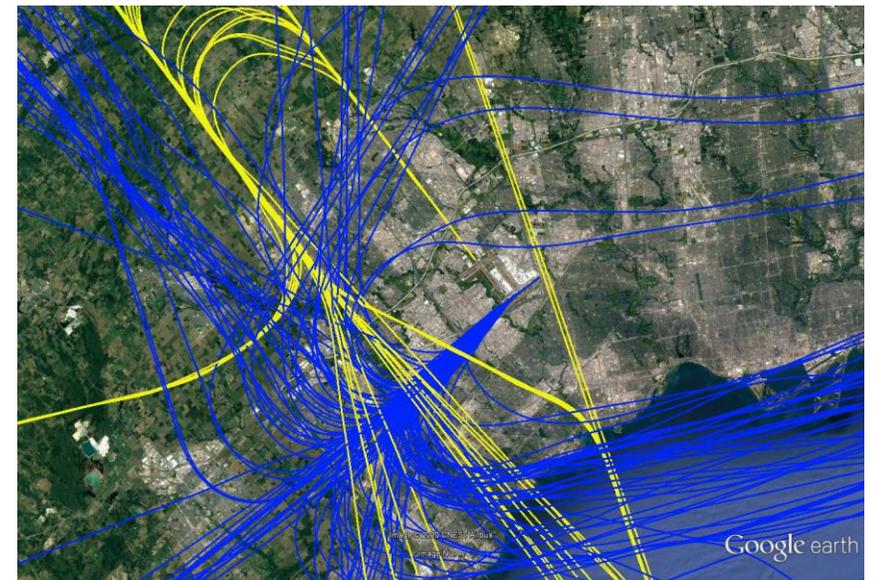
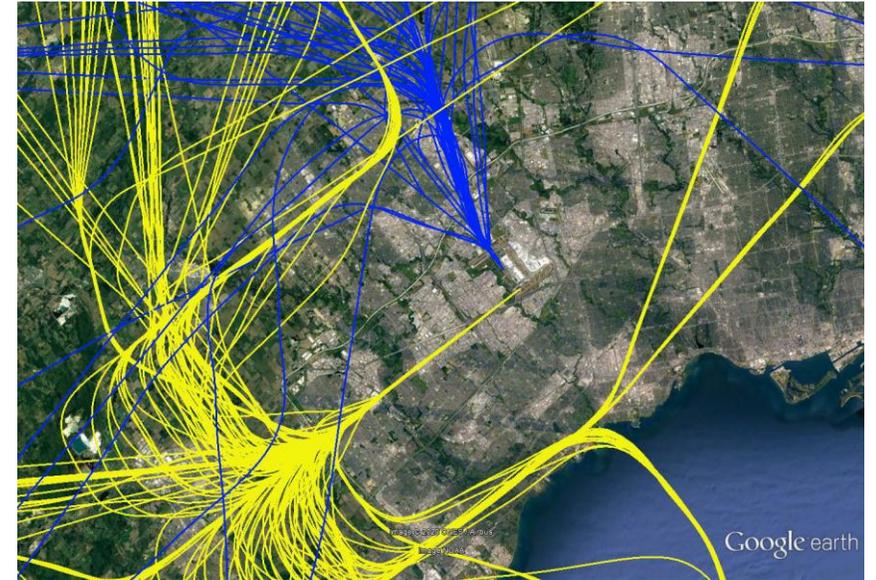
Date: August TBD

Time: Midnight – 6:30 a.m.

- **Increased usage of maintenance contingency preferential runways**
 - **Arrivals on 06L and departures on 33L**
 - **Arrivals 15R and departures on 24R**
 - Arrivals and departures on 06L or 24R if required due to winds
 - Arrivals and departures on 15R or 33L if required due to winds

Affects residents living in areas directly west and north of the airport aligned with Runways 06L/24R and 15R/33L:

- **West** – Mississauga Malton, Mississauga East-Cooksville, Mississauga-Streetsville, Mississauga-Erin Mills, Mississauga-Centre, Milton
- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton



Project 2: Rehabilitation of Runway 15L/33R - Phase 3

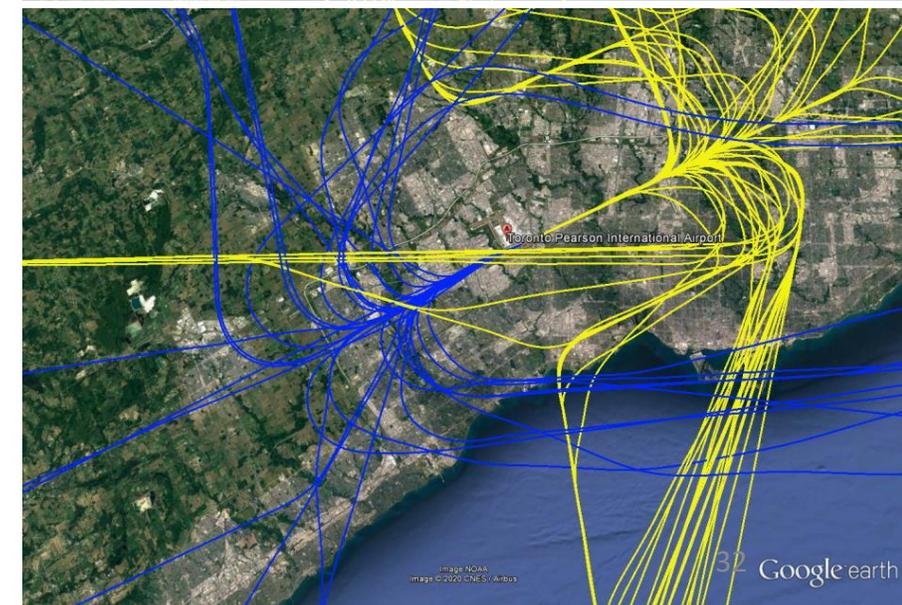
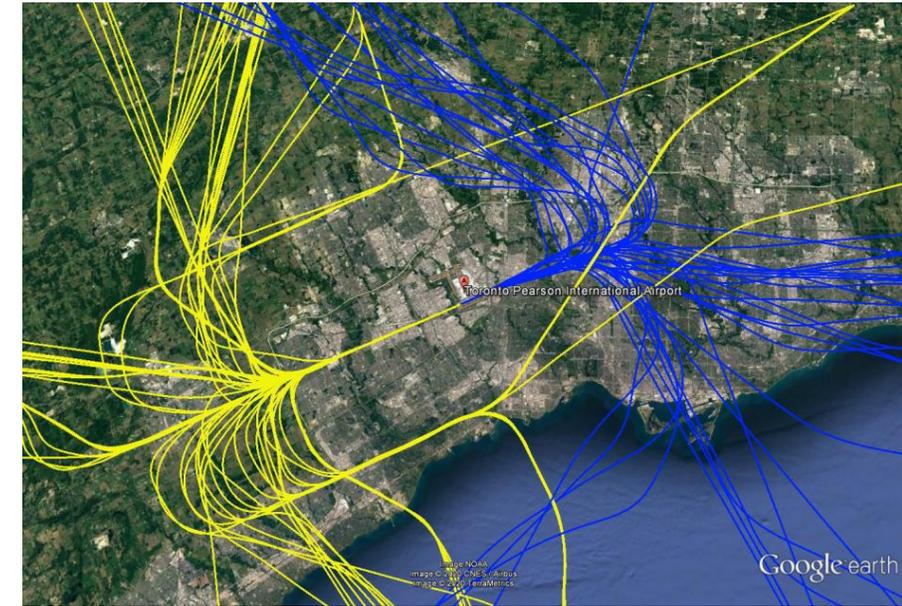
Date: August TBD

Time: Midnight – 6:30 a.m.

- **Increased usage of maintenance contingency preferential runways**
 - Arrivals on 06L and departures on 33L
 - Arrivals on 15R and departures on 24R
 - **Arrivals and departures on 06L or 24R if required due to winds**
 - Arrivals and departures on 15R or 33L if required due to winds

Affects residents living in areas directly east and west of the airport aligned with Runways 06L/24R and 06R/24L:

- **East** – Etobicoke North, Etobicoke Centre, Humber River Black Creek, York Centre, Willowdale, Don Valley North, Markham-Thornhill, Markham-Unionville
- **West** – Mississauga Malton, Mississauga East-Cooksville, Mississauga-Streetsville, Mississauga-Erin Mills, Mississauga-Centre, Milton



Project 2: Rehabilitation of Runway 15L/33R - Phase 3

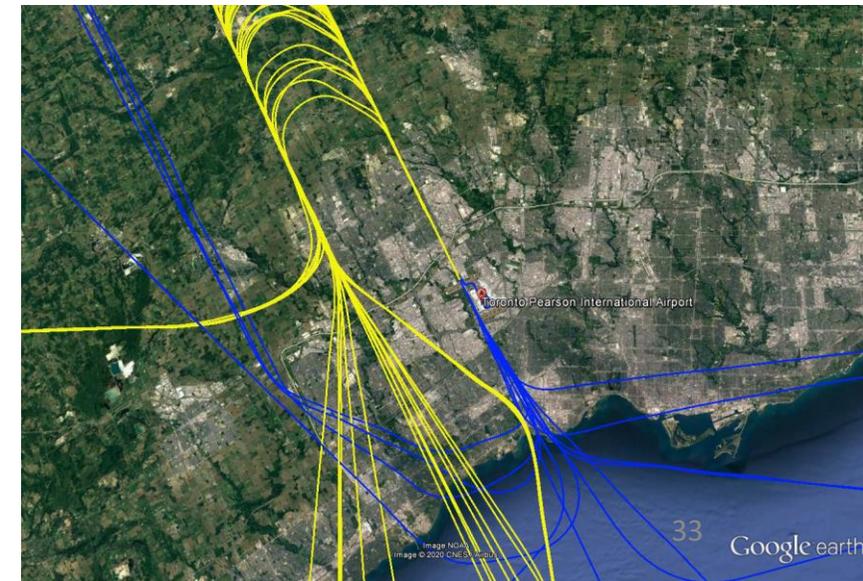
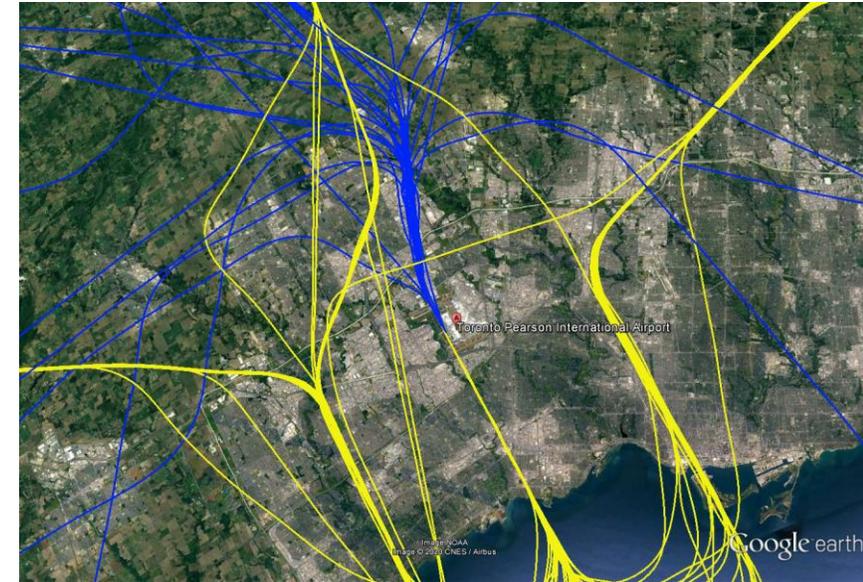
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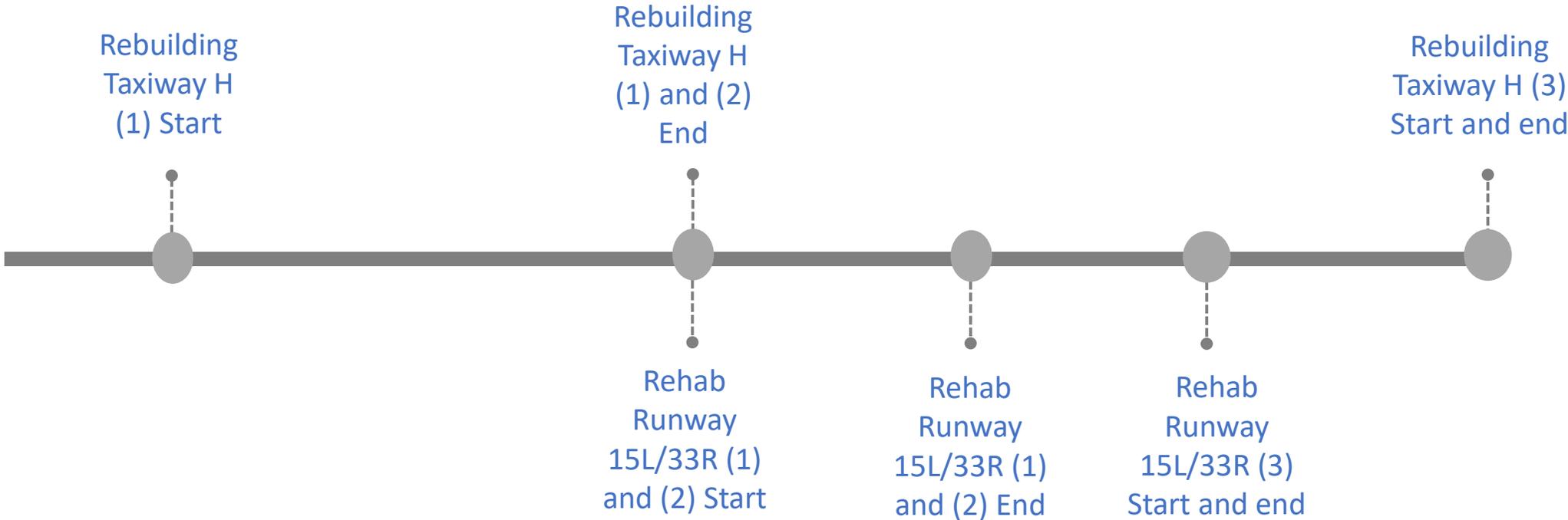
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 - Arrivals on 06L and departures on 33L
 - Arrivals on 15R and departures on 24R
 - Arrivals and departures on 06L or 24R if required due to winds
 - **Arrivals and departures on 15R or 33L if required due to winds**

Affects residents living in areas directly north and south of the airport aligned with runways 15R/33L:

- **North** – Brampton East, Brampton Centre, Brampton North, Mississauga-Malton
- **South** – Etobicoke Centre, Etobicoke-Lakeshore, Mississauga East-Cooksville

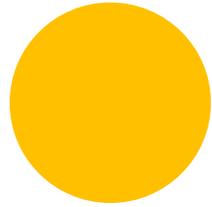
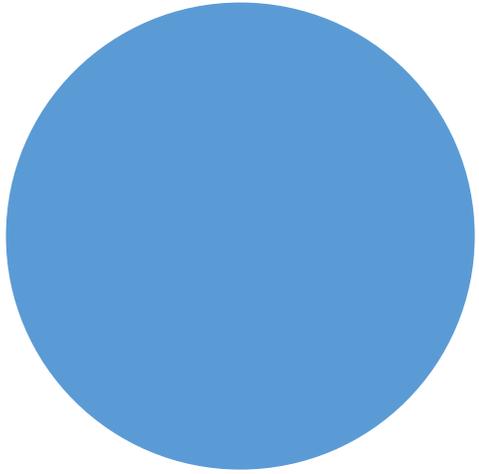


Timeline



2020 Airside Capital Maintenance Projects Communications

Briefings with Noise Forum Tables, including Elected Officials, Neighbourhood Table and Pearson Public Meeting	March 11 April 1 April 2
Ads in community newspapers	Starting March 12
Geo-targeted digital ads	March 12 to March 19
Social media campaign	March 12 throughout
Info included in community e-newsletter, Checking In	March - April
2020 Airside Construction Webpages	March 12 launch
Automated calls to residents in impacted areas	April 6 to April 10
Community Open Houses in impacted areas	March 19: Mississauga Cooksville April 8: Etobicoke Central April 15: Etobicoke Lakeshore More to be scheduled



Discussion

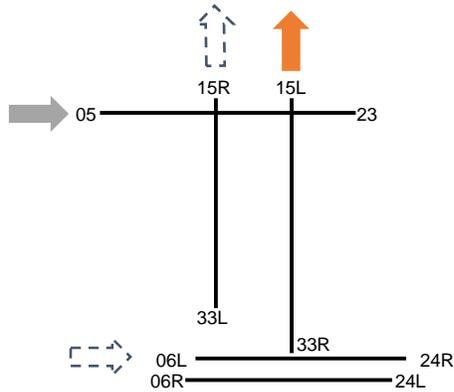


Trial Idea 6: Updated Preferential Runway System

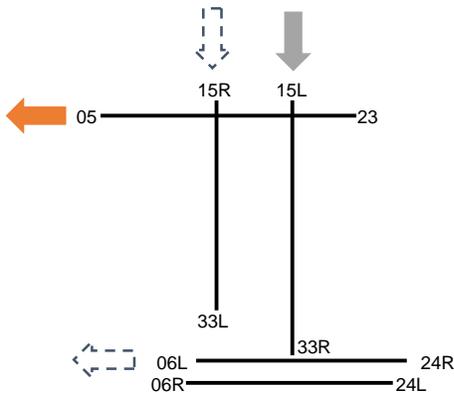
Better defining our nighttime preferential runway system

Trial - Updated Preferential Runway System

1st Choice - Whenever crosswind, tailwinds & winds-aloft allow

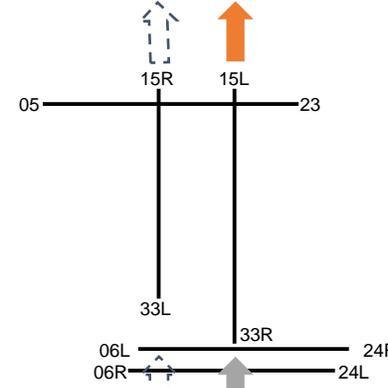


2nd Choice - Whenever crosswind, tailwinds & winds-aloft allow

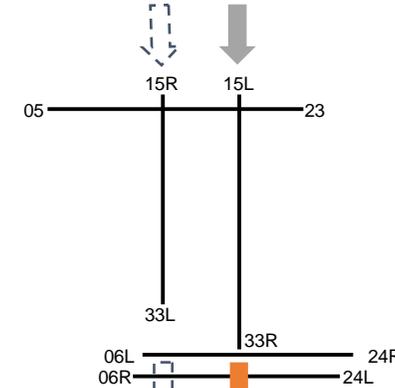


Selection driven by weather conditions and infrastructure availability when 1st or 2nd choice are not operable. Ultimately any single or pair of runways can be used.

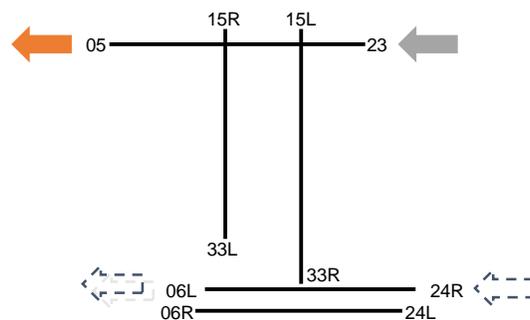
Operation for northerly wind



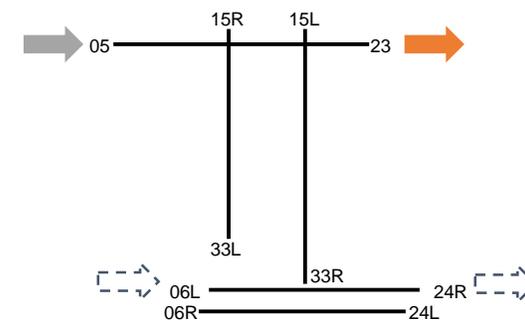
Operation for southerly wind



Operation for westerly wind



Operation for easterly wind



Key:

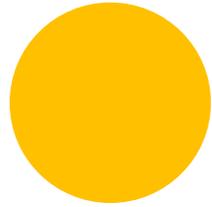
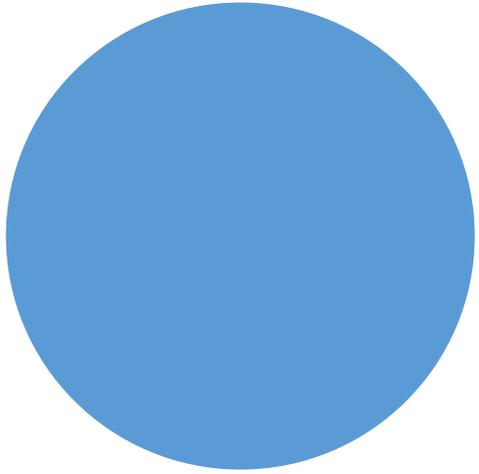
- Primary departures
- Primary arrivals
- Maintenance adjusted departures
- Maintenance adjusted arrivals

Trial - Updated Preferential Runway System Communications

Trial began February 27, 2020 and ends February 26, 2021

Pre-Trial	During the Trial	Post-Trial
<ul style="list-style-type: none"> • Dedicated note to Elected Officials with FAQ (Feb 11) • Elected Officials and Neighbourhood Table briefings • Advertisements in local papers • Social media • Checking-in • Dedicated website 	<ul style="list-style-type: none"> • Website updates • Community feedback accepted through online feedback form • Continued social media posts • Noise Forums briefings 	<ul style="list-style-type: none"> • Web Update • Emails to Elected Officials and engaged residents • Noise Forums briefings





Discussion



Update: Runway Selection Criteria

Changes to improve reliability of airport operations

Runway Selection Criteria



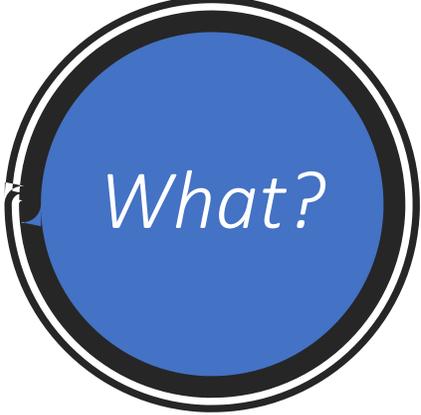
Why?

- Weather related operational delays impact our passengers, air carriers and significantly disrupt the network
- Toronto Pearson's schedule dependability can be reduced by between 20% and 45% while on north/south runway operations
- Extended operations at a reduced capacity can lead to an increase in number of operations during the restricted hours
- Safely improve the reliability of operations at Toronto Pearson

Runway Selection Criteria

February 2019 → Increase Wet & Contaminated Limits

April 2020 → Increase Dry Crosswind Limits



What?

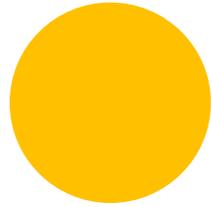
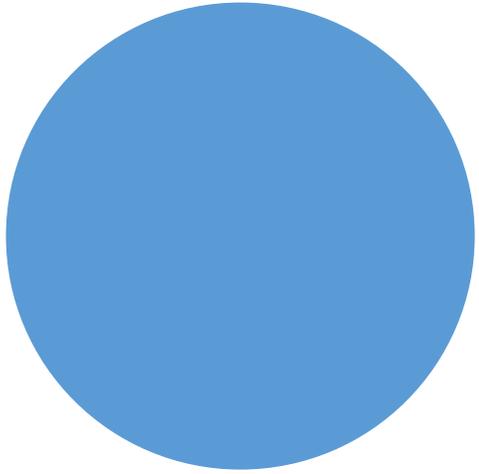
	Maximum Crosswind Component Including Gusts			
Runway Condition	Pre February 2019	February 2019	April 2020	Traffic Distribution change
Dry	25 knots	25 knots	30 knots	Predicted: <ul style="list-style-type: none"> • 1.4% more east/west operations across six runways (5,124) • 32% fewer north/south operations
Wet	15 knots	20 knots	20 knots	Actual: <ul style="list-style-type: none"> • 2.0% east/west operations across six runways (7,052) • 42% fewer north/south operations
Contaminated	Select “most into the wind” runway	10 knots TRACE depth contamination - 15 knots	10 knots TRACE depth contamination - 15 knots	

Runway Selection Criteria



How we're communicating (similar to 2019):

- Briefings with Elected Officials – March 11
- Briefing with Neighbourhood Table – March 11
- Official notice to Industry stakeholders in the Aeronautical Information Circular – April 2020
- Article to be published in community e-newsletter, Checking In



Thank You

