

Introduction to OPAS

Transforming Ground Operations at Toronto Pearson International Airport



Pearson by the Numbers

47.3 M

Passengers served in
2025



201

Destinations



53

Airline partners



14

Major air cargo
operators

1,875
People

Directly employed by
GTAA (Toronto
Pearson)

4,600
Acres

Occupied by
business aviation
operations
(about 12,500 hockey
arenas)

3rd year
consecutive
winner

Top 300 Forbes Best
Employers in Canada

24/7
Operations

Year-round





Terminal

Terminal

CDF

CYYZ has:
5 Runways
2 Control Towers (ATC and Apron Management)
30 Taxiways
2 Terminal Buildings
1 Central Deicing Facility
186 Aircraft Parking Stands

... and growing

Arrivals
Departures
Overflights

OPAS History - How did we get here?

- NAVCANADA upgraded ASDE system early 2010s
- MLAT implementation was a joint project between NAVCANADA and GTAA ~2014
- 26 MLAT sensors installed around the airport
- Improvements to situational awareness for aircraft and vehicle tracking which also improves safety, and runway incursion prevention
- Bonus side effect is more and much better operational data

OPAS History - How did we get here?

- **Operations Performance Analysis System - OPAS**
- A customized performance analysis tool using the existing framework of ANOMS
- Tracks aircraft from the gate to the edge of the Toronto Terminal Airspace using radar and MLAT interface
- Processed data for Operation Metrics and reporting
- Determine heat maps of most used taxi routes (wear and tear of the surfaces)
- Export data into Excel, or Word documents – User defined templates

Holding at
Stopbars

Speed & Use
of Exits

Occupancy:
Apron

Taxi Times

Occupancy:
Runway

Pushback
Times

Occupancy:
Deicing Facility

Taxi Route
Usage

Speed of
Aircraft

Occupancy:
Taxi Routes

Dwell
Times

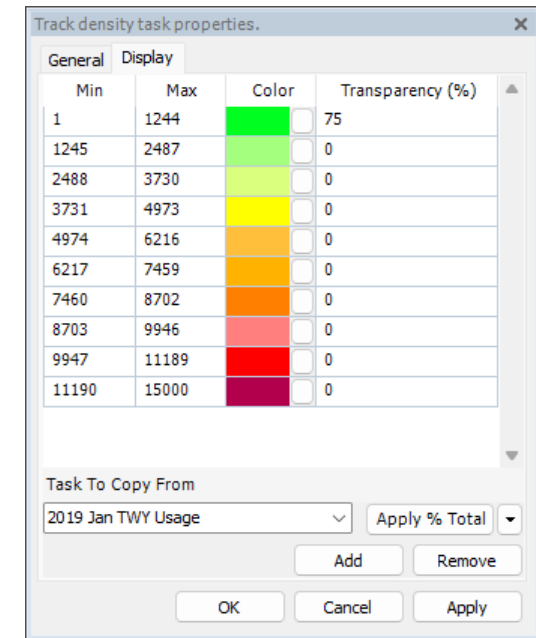
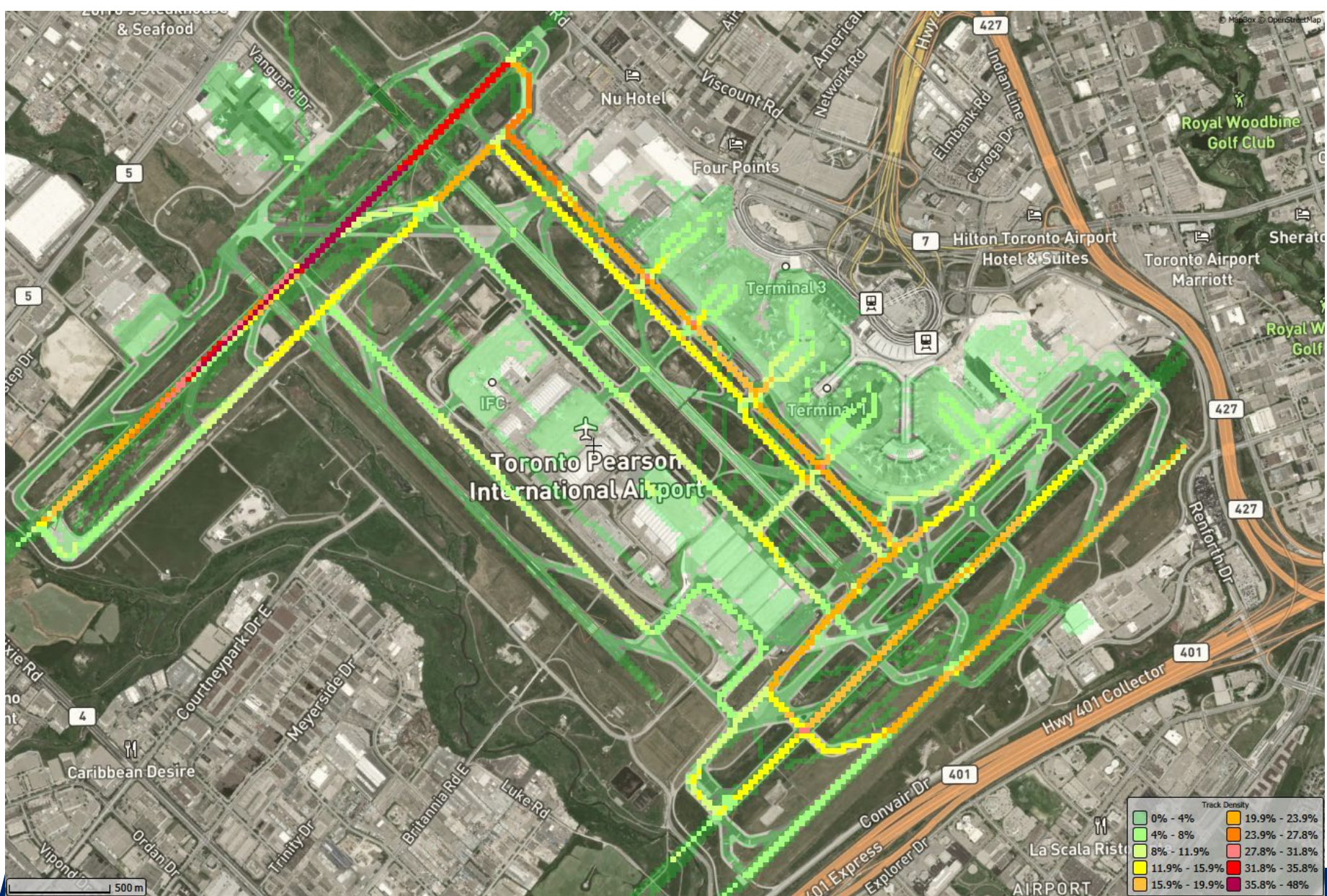
Holding at
Gates

Pavement
Loading

Metrics

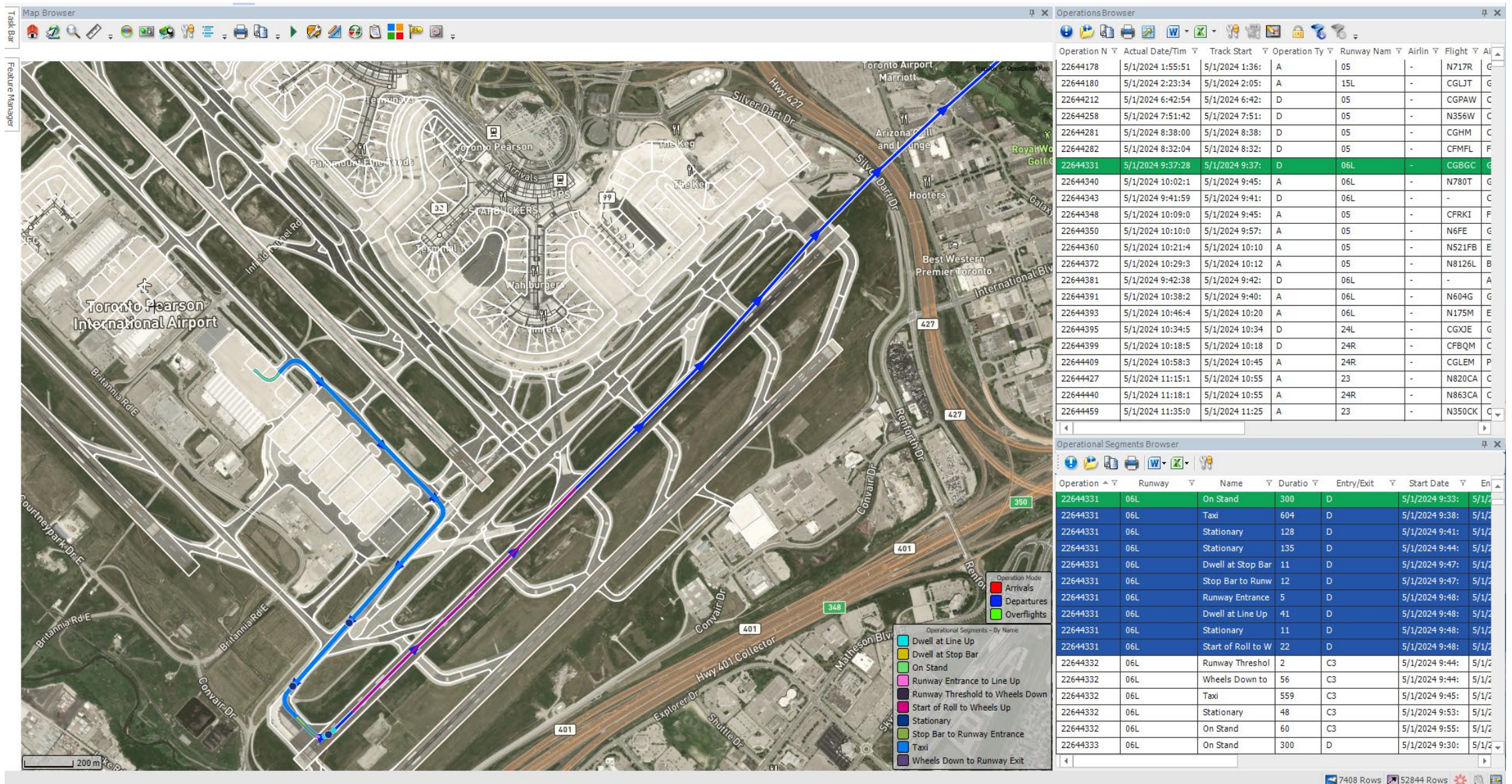
- Aircraft Stationary Times
- Stopbar to Lineup times
- Ground Handler Performance – No Crew, Gate Holds, Pushback
- High Speed Exit Utilization
- Aircraft Noise Enforcement Activities

- ROT of Snow Teams – *ongoing*
- Engine Ice Shedding Procedure - *ongoing*

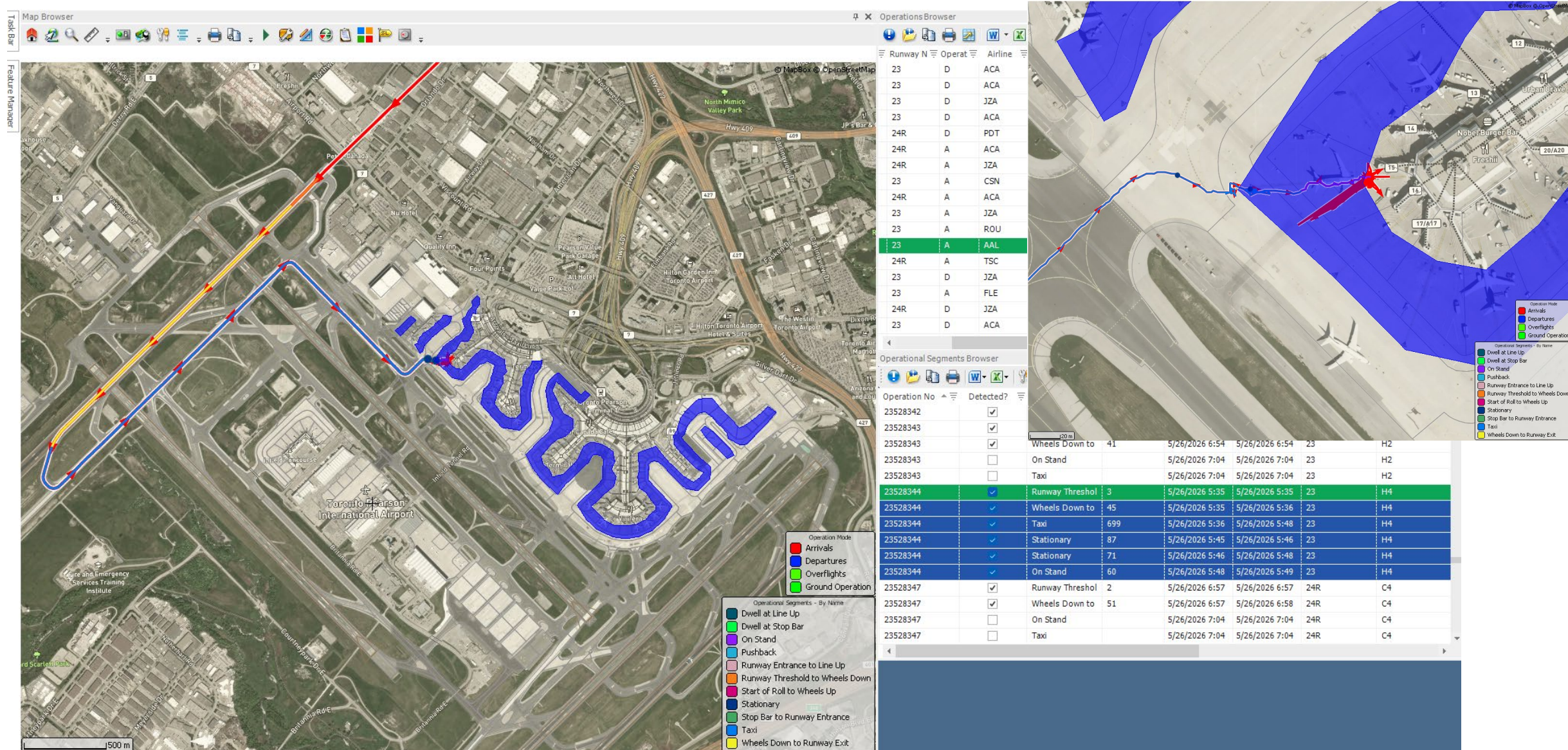


- 31,254 Operations
- Max Density 14,774

OPAS – Taxiway Usage Heatmaps



OPAS – Runway Occupancy Time



OPAS – Gate Arrivals (Ground Handler KPIs)