



# MASTER PLAN 2041

## EXECUTIVE SUMMARY

Halifax International Airport Authority



HalifaxStanfield

# INTRODUCTION



Halifax Stanfield International Airport (Halifax Stanfield) is one of 26 airports in the National Airports System in Canada and is currently the eighth busiest airport in Canada. The airport's strategic location, local economic base and infrastructure have enabled Halifax Stanfield to become the primary international gateway airport to Atlantic Canada. Prior to the COVID-19 pandemic, which was declared in March 2020, the airport had both passenger and cargo air services to cities across Canada and to destinations in the United States, Europe, the Caribbean, and the French islands of St Pierre et Miquelon. Halifax International Airport Authority (HIAA) is dedicated to rebuilding those services and adding new destinations in the years ahead.

## AIRPORT'S MISSION

The airport's Mission is to accelerate the growth of our communities by connecting people and goods to the world. HIAA is committed to providing the province with a state-of-the-art airport that is fully equipped to serve this Mission. The airport's infrastructure has already benefited from the investment of nearly \$700 million since 2000. The Master Plan establishes the strategic development plan of the airport property to guide decision-making through 2041. The recommendations within this Master Plan will be subject to ongoing review during its planning horizon to ensure that its implementation is aligned with emerging strategic needs and growing air service patterns.

## MASTER PLAN GOALS & OBJECTIVES

The development of the Master Plan was guided by the following planning principles and objectives:

- Enhance the safety, operational efficiency, and capacity of airfield operations.
- Proactively accommodate forecast growth in airline traffic that is flexible to the market segment, emerging technologies, and other trends.
- Promote and build on the opportunity to grow connecting traffic between Canada and international markets, especially those in Europe.
- Ensure that there is the appropriate infrastructure to support additional air cargo carriers and cargo-related tenants as needed.
- Provide land-use guidelines and investment principles to inform quick decisions on development opportunities.
- Implement sustainable solutions that maximize the use of existing facilities before developing new ones.



# ACTIVITY FORECASTS



## HISTORICAL ACTIVITY

Over the past two decades, the airport has grown its annual passenger traffic volumes from 3.1 million passengers in 1999 to 4.2 million annual passengers in 2019. Passenger traffic at Halifax Stanfield was significantly impacted by the COVID-19 pandemic in 2020, with annual passenger volumes falling to just below one million passengers for the first time since the 1970s. While traffic has started to slowly recover through the second half of 2021, HIAA forecasts another year with under one million passengers flying through Halifax Stanfield.



Aircraft movements have generally experienced a trend of declining activity, falling from a recent peak of 104,683 annual movements in 1998 to 74,708 movements in 2019. From 2003 to 2018, passenger carrier movements increased by 45% overall while total passenger traffic grew by 115%, highlighting a trend in the aviation industry of increasing average aircraft size and higher load factors. General aircraft movements experienced a sharp decline from 2000 to 2011 before stabilizing at 9,000 to 10,000 movements per year.

The air cargo market at Halifax Stanfield saw steady growth in the years leading up to the COVID-19 pandemic, as the demand for lobster has increased and dedicated air freighter activity fueled increased volumes. In 2019, 41,128 metric tonnes of air cargo was processed at Halifax Stanfield, compared to 26,910 metric tonnes in 2009.

The pandemic caused a decline in cargo activity in 2020 but is showing positive signs of recovery in 2021.



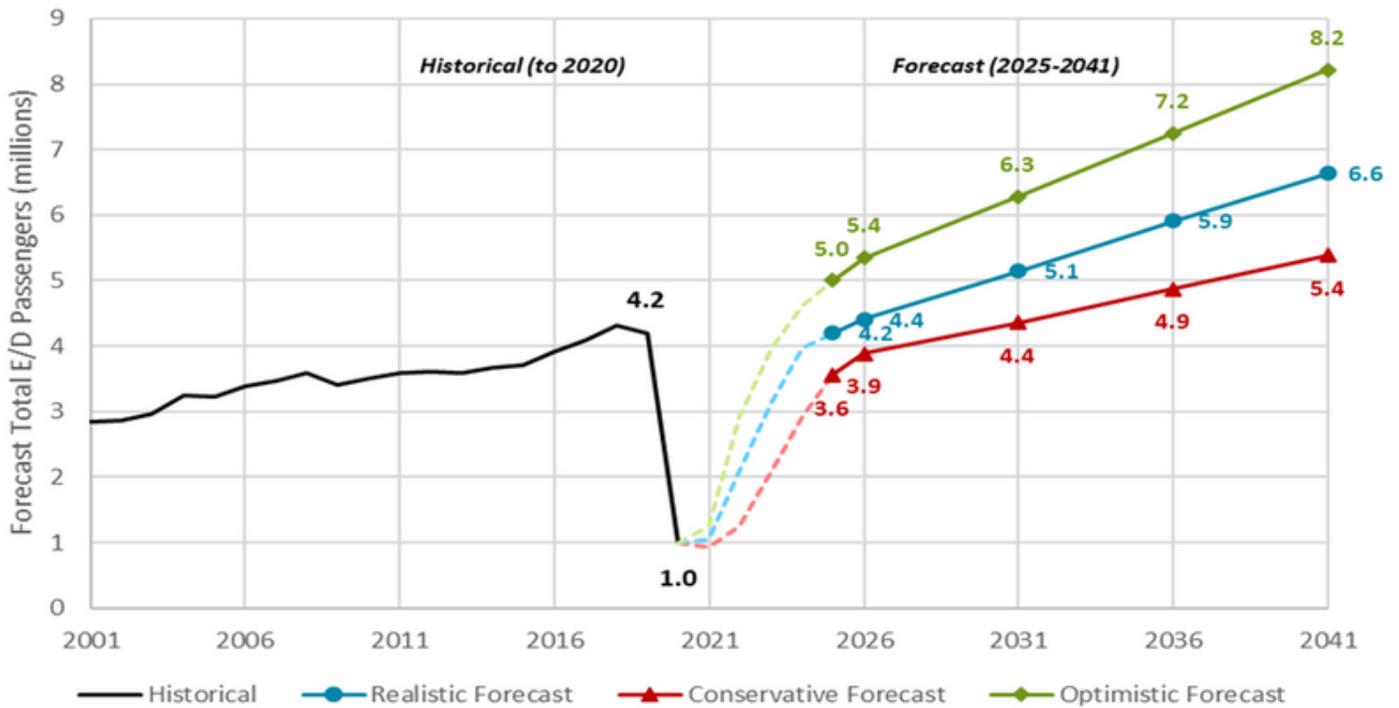
# ACTIVITY FORECASTS



## PASSENGER TRAFFIC FORECAST SCENARIOS

Demand for air transportation between origin and destination markets is driven by the socioeconomic interactions between these markets, shaped by carriers' networks and available aircraft capacity. Generally speaking, business activity, tourism, and visiting friends and relatives constitute the primary segments of air passenger travel.

Various growth scenarios were considered, with the results forecasting passenger volumes in 2041 to be from a low of 5.4 million passengers to a high of 8.2 million passengers. The Master Plan was developed using a more realistic scenario falling between these extremes, with a forecast of 6.6 million passengers by 2041.



# ACTIVITY FORECASTS

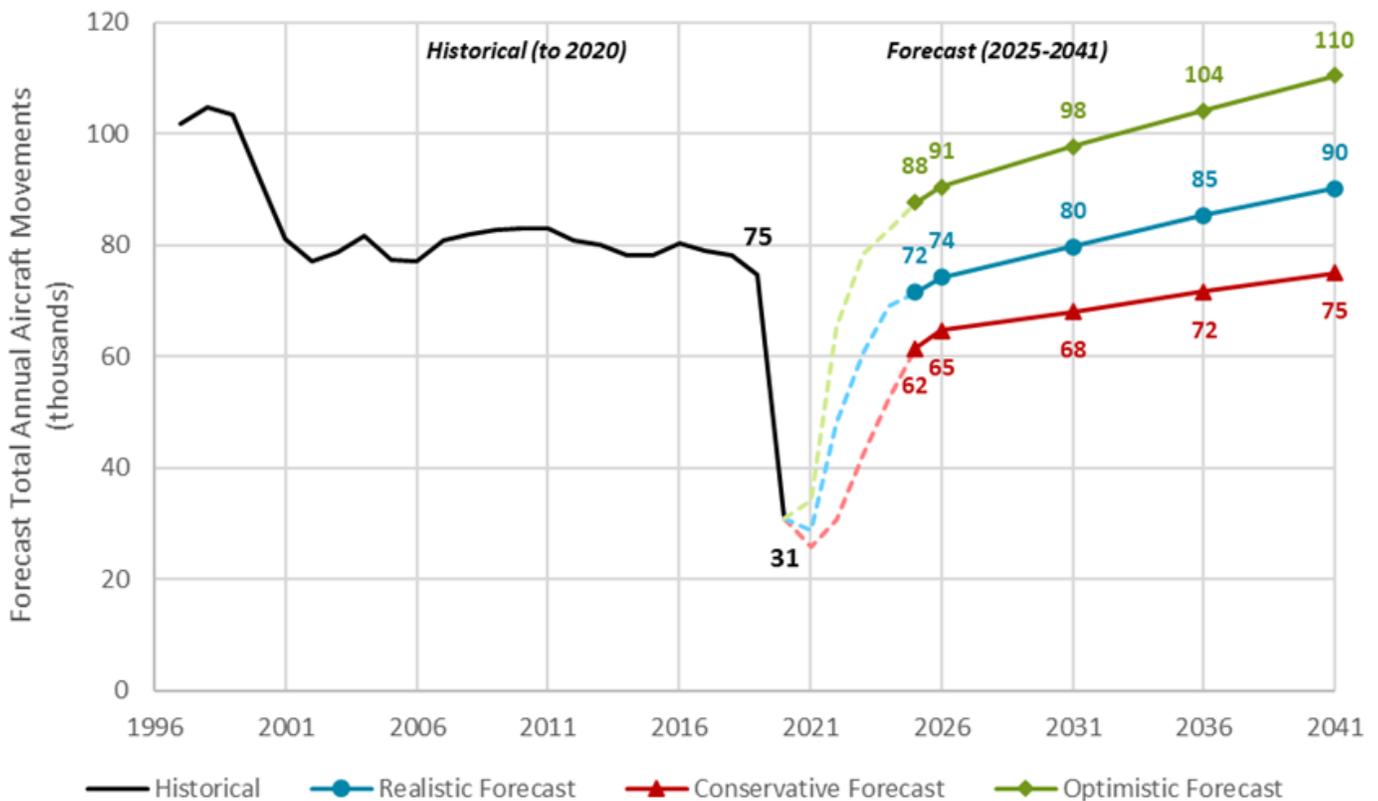


## AIRCRAFT MOVEMENT FORECAST SCENARIOS

Over the coming two decades, total aircraft movements are forecast to reach 90,170 movements in 2041 in the most likely scenario, growing at an average rate of 0.9% per annum (2019-2041). Positive growth over the long term is attributed to the growth in passenger carrier movements while non-passenger aircraft activity is forecast to remain at levels similar to those observed in recent years.

## CARGO FORECAST SCENARIOS

The new Halifax Stanfield Air Cargo Logistics Park, scheduled to open in 2022, will support anticipated cargo growth with five new aprons providing flight schedule flexibility and a new cargo building offering enhanced warehousing facilities. Growth in cargo volumes is expected to be driven by diversification of goods being shipped and supply chain shifts to fly goods directly from Halifax Stanfield rather than via trucking to airports outside of the region. Cargo volumes are forecast to increase to 82,000 metric tonnes by 2041.



# AIRPORT DEVELOPMENT



## AIRFIELD

Currently, there are two intersecting runways equipped for precision approaches. Runway 14-32 measures 2,347 metres in length, while Runway 05-23 measures 3,200 metres and is long enough to accommodate current and future long haul cargo aircraft operating to destinations within range of the airport. The airfield has sufficient capacity and runway lengths to accommodate future demand in hourly and annual aircraft movements beyond 2041.

The taxiway system is scheduled to undergo expansion to improve airfield operations. Of note, is the development of a parallel taxiway to Runway 14-32 connecting the threshold of Runway 14 with the passenger terminal apron to reduce runway occupancy times and to minimize congestion on the apron.

Other improvements to the airfield include a consolidation of the four aircraft deicing bays into a single location to allow for the establishment of remote aircraft stands for future expansion of the air terminal building. Longer term improvements include the construction of an off-gate parking area to provide parking for overnight aircraft and the development of an additional apron taxi lane to allow two-way movement of aircraft.

Land is available for further development at the south end of the airfield and a parcel of lands has been reserved along Taxiway Delta for future airside facility development.

## TERMINAL AREA

The existing air terminal building at Halifax Stanfield is located west of the intersection of the two runways. It is oriented in a north-south direction and served by an access road on the west side. A vehicular parking structure is located immediately to the west of the building.

Growth in peak hour aircraft movements will require expansion of the terminal building during the planning horizon. Additional capacity will be provided in a phased approach, with limited busing operations to remote aircraft stands providing interim capacity until the terminal is expanded with new a pier providing additional bridged gates. Terminal expansion is described further in Terminal Area Plans.

The roadway system is forecast to provide good service through the planning horizon, with minor changes required to relieve congestion on the terminal curbs. The Park 'N Fly parking lot will be expanded and a new 'cell phone' lot will be constructed to provide an area for vehicles to park at no charge while waiting to pick up passengers from the terminal. Additional airport employee parking will also be developed when demand begins to exceed the available supply.



# AIRPORT DEVELOPMENT



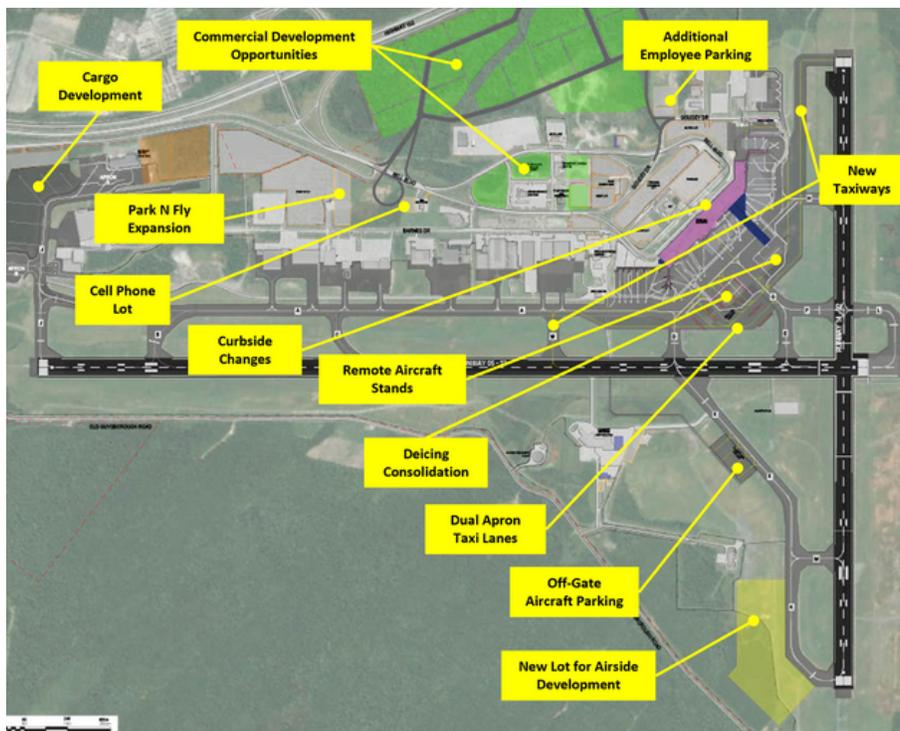
## COMMERCIAL DEVELOPMENT

There are areas of the airport property which are not used by HIAA to directly serve aviation activity. HIAA leases these lands to other aviation business for hangars, aircraft maintenance, refueling facilities, and private aviation. There are additional areas not well-suited to aviation activity which HIAA leases to commercial business including retail operators, food & beverage facilities, and hotels. The non-aeronautical revenues generated by these commercial leases support HIAA airport operations, reducing the costs that are recovered through aeronautical fees.

The land adjacent to Highway 102 and in the area encircled by Bell Boulevard are well suited to development for non-aviation purposes that including retail, offices, industrial facilities, and other facilities that do not require direct access the airfield. The visibility of this area along Highway 102 and the main airport access road is attractive to business serving airport employees, motorists on the adjacent highway, and airport passengers. Conceptual plans have been developed for these lands and the final implementation will be guided by commercial demand.

## TECHNOLOGY

Technology will continue to play an important role in the success of Halifax Stanfield. The aviation industry is becoming increasingly reliant on technology to facilitate the passenger journey from curb to gate while maximizing the use of existing facilities and resources as passenger volumes grow. HIAA will leverage technology and work with its airport partners to deliver innovative, safe, and effective solutions that improve the passenger experience.



# TERMINAL DEVELOPMENT



The existing passenger terminal apron at Halifax Stanfield is capable of accommodating the simultaneous gating of 23 aircraft, of which 12 aircraft are bridged and the remainder require ground loading of passengers. Some of these gates are aircraft size-limited and can only accommodate aircraft up to the size of a Q400 aircraft.

As passenger traffic grows through the first decade of this plan, a total of 23 gates will be required to accommodate the number of flights during peak hours. Although there are 23 gates currently available during normal operations, circumstances sometimes require gates to be taken out of service for maintenance or construction purposes. On these infrequent occasions, passengers will be bused between the terminal and remote aircraft stands near Taxiway Golf.

During the 2032-2041 horizon, there will be an ongoing requirement for 27 simultaneous gate positions during peak hours. These additional gates cannot be easily provided through busing operations and new bridged gate positions will be required. A new pier providing a net increase of 8 new gate positions will be constructed, extending perpendicularly from the north end of the existing terminal.

Several modifications occur within the terminal building. In the near-to-medium term, an expanded International-To-Domestic Connections facility will be developed on a newly constructed floor above the International Arrivals Hall, to provide additional capacity for processing passengers arriving on international flights and connecting to an onward domestic flight.

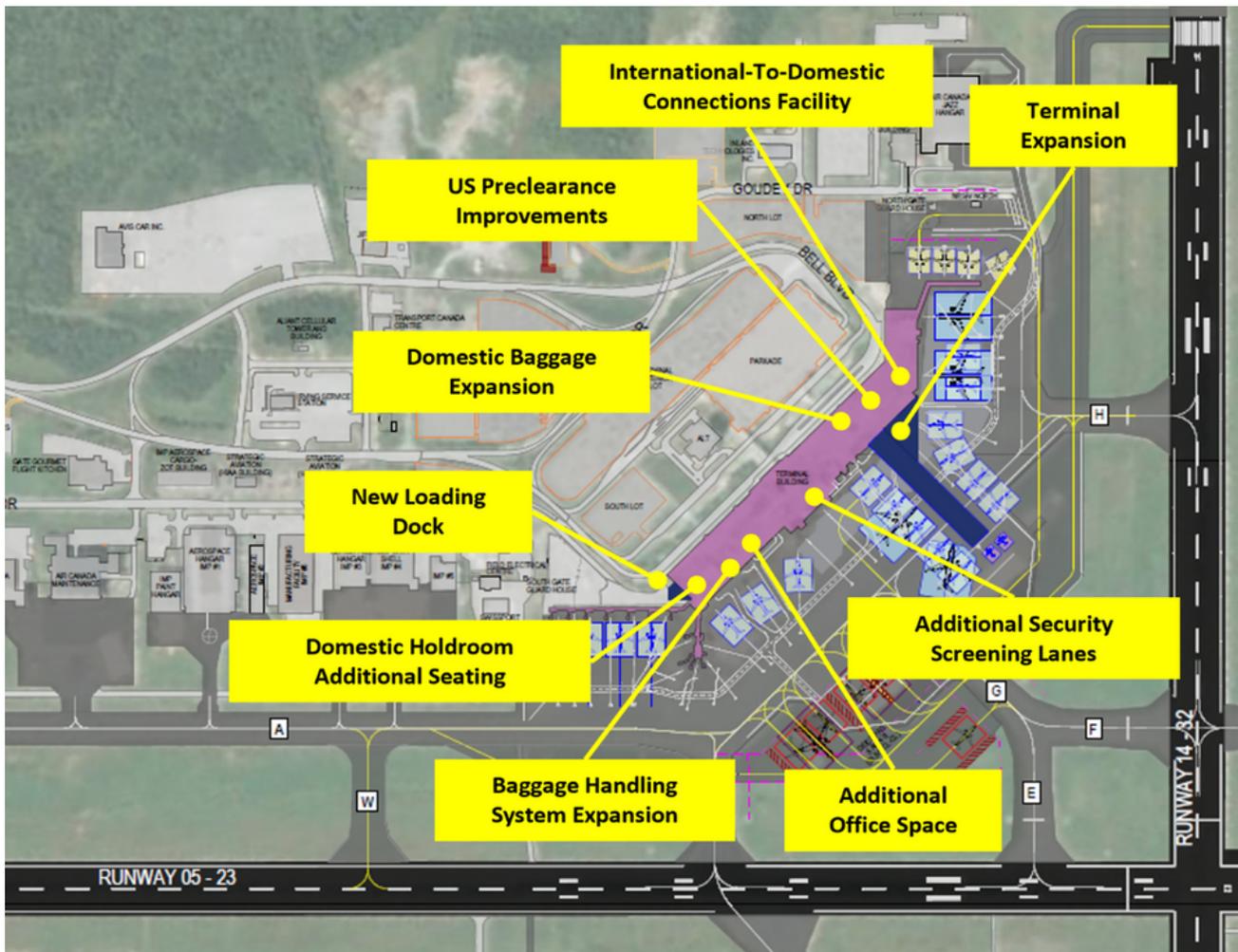
As passenger volumes return to pre-pandemic levels, an additional baggage reclaim device will be added to the Domestic Arrivals area to provide additional capacity and the Transborder Check-In Hall will be expanded with new check-in counters. A new seating area will be constructed in the Domestic Departures area to accommodate busing operations which will later be converted to other uses when busing is no longer required.

Over the longer term, the outbound baggage hall and the baggage handling system will be expanded for Domestic and International flights. Additional security screening lanes will be required at both the Domestic/International and Transborder preboard screening locations. A new loading dock facility with direct service to the restricted areas will be developed, and the existing office areas will be expanded if warranted by demand for leased tenant space.





# TERMINAL DEVELOPMENT





# HalifaxStanfield

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