

February 2023

# INFORMATIONAL BRIEFING VANCOUVER AIRSPACE MODERNIZATION PROGRAM

[NAVCANADA.CA/VAMP](https://navcanada.ca/vamp)

**ON TABLE**  
City Council Meeting  
February 13, 2023  
re: Item 4.1.a

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# OVERVIEW



Introductions  
Background on NAV CANADA



Overview of Changes in Your Region



Information on Public Consultation



Questions



# **INTRODUCTIONS AND BACKGROUND**



# ■ OUR STORY

- › In 1996, NAV CANADA became the world's first fully privatized air navigation service
- › Our vision: to be the world's most respected air navigation service in the eyes of the public, our customers and employees

# OUR STORY

## TOLD IN FACTS AND FIGURES

NAV CANADA

Private, non-share capital company

Managing one of the largest regions of airspace in the world



**18 M**

square kilometres of  
airspace managed by  
NAV CANADA



More than  
**100**  
staffed sites



More than  
**4,000**  
employees across the  
country



**45,000**  
customers

# A CULTURE OF SAFETY

## Safety is why we exist

- › Our commitment to safety is shared at every level
- › We are industry leaders in establishing a company-wide Safety Management System
- › As a result, our safety record is regarded as one of the best in the world

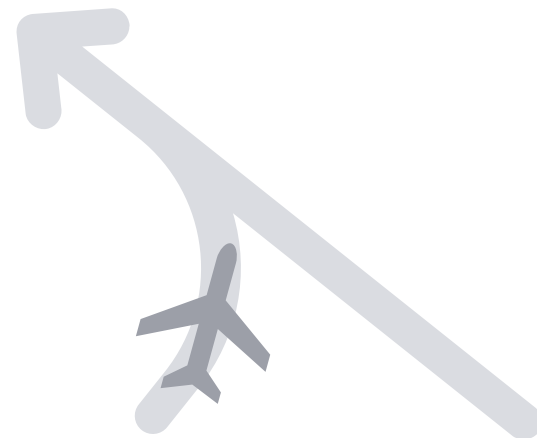




# HELPING THE INDUSTRY REDUCE ITS ENVIRONMENTAL IMPACT

- › Improving air traffic management
  - Modernizing Canada's airspace
  - Implementing new technologies
- › The aviation industry recognizes aircraft and airport operations have impacts and we are committed to continuous improvement and work towards minimizing and mitigating environmental impacts – noise and emissions – where possible.



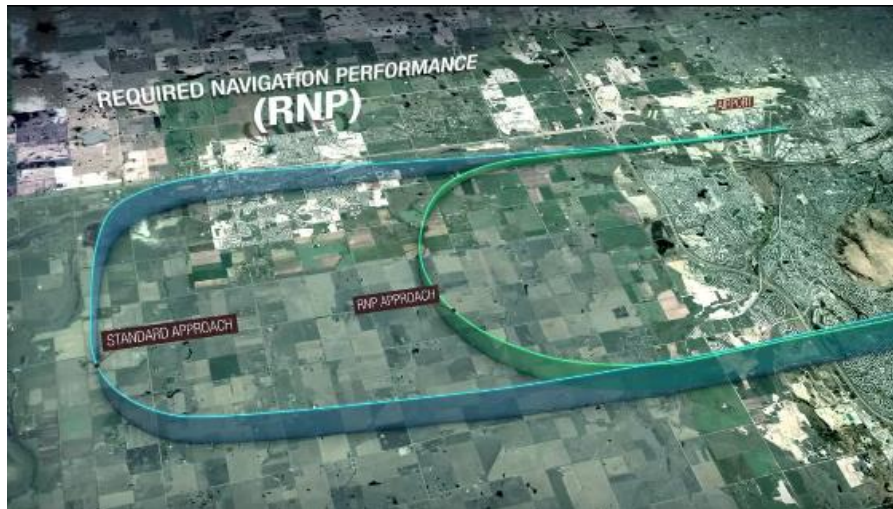


# **OVERVIEW OF CHANGES IN YOUR REGION**

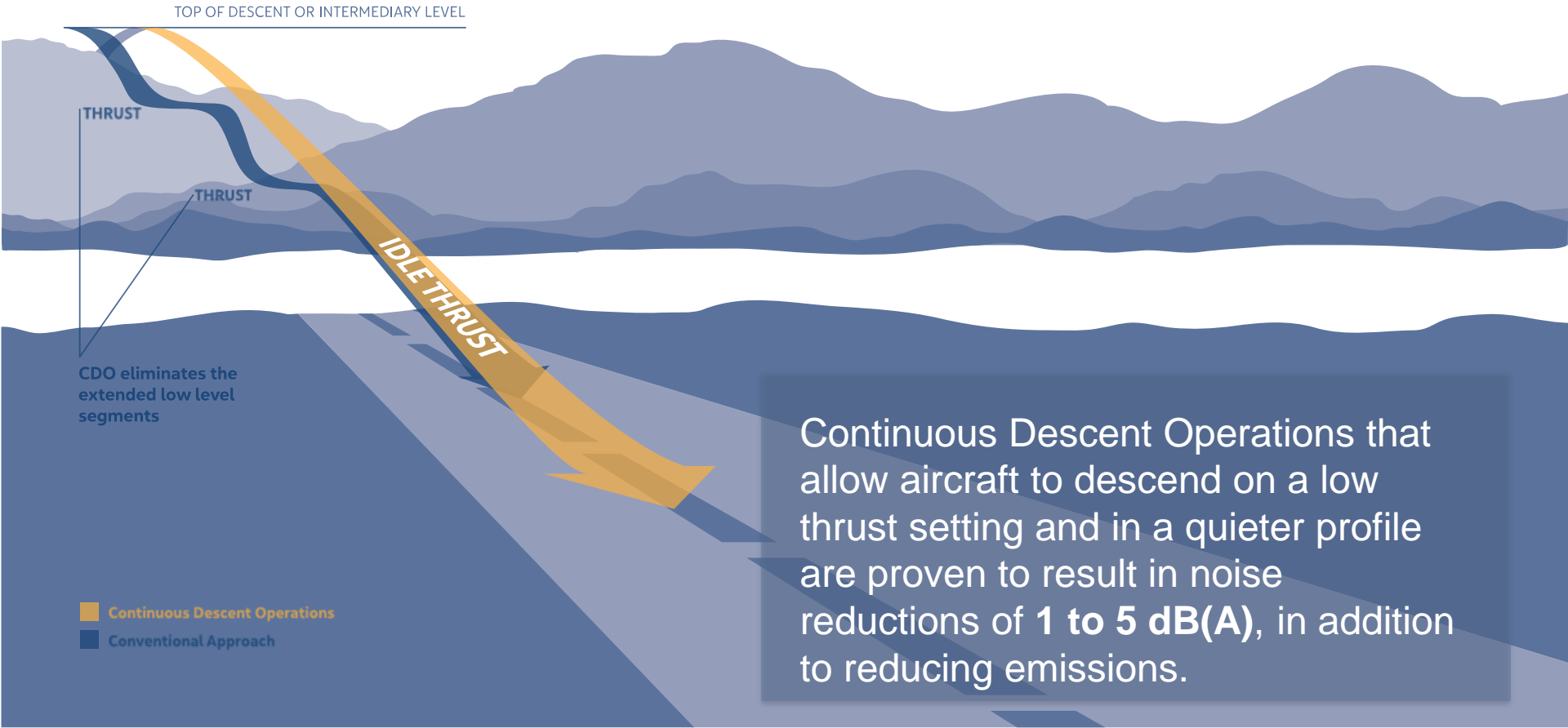


# WHAT IS RNP AND RNP AR?

- › Required Navigation Performance (RNP) is a form of aircraft navigation.
- › RNP uses an aircraft's flight management system and satellite positioning to fly a precise three-dimensional path in the sky.
- › RNP makes it easier to design safe efficient, predictable routes.
- › Required Navigation Performance Authorization Required (RNP AR) is a special type of RNP approach



# Continuous Descent Operations



# FUEL AND EMISSIONS SAVINGS

RNP AR procedures provide “short turn” approaches featuring constant descent and reduced track miles.

As of November 2022, RNP AR approaches were available at 32 Canadian airports.

WHEN COMPARED TO CONVENTIONAL APPROACHES, THE USE OF RNP AR LED TO THE FOLLOWING BENEFITS:

## FISCAL YEAR 2020



**313,690+**  
TRACK MILES SAVED



**1.6+**  
MILLION LITRES  
FUEL BURN AVOIDED



**4.2+**  
MILLION KG  
GHG EMISSIONS REDUCED

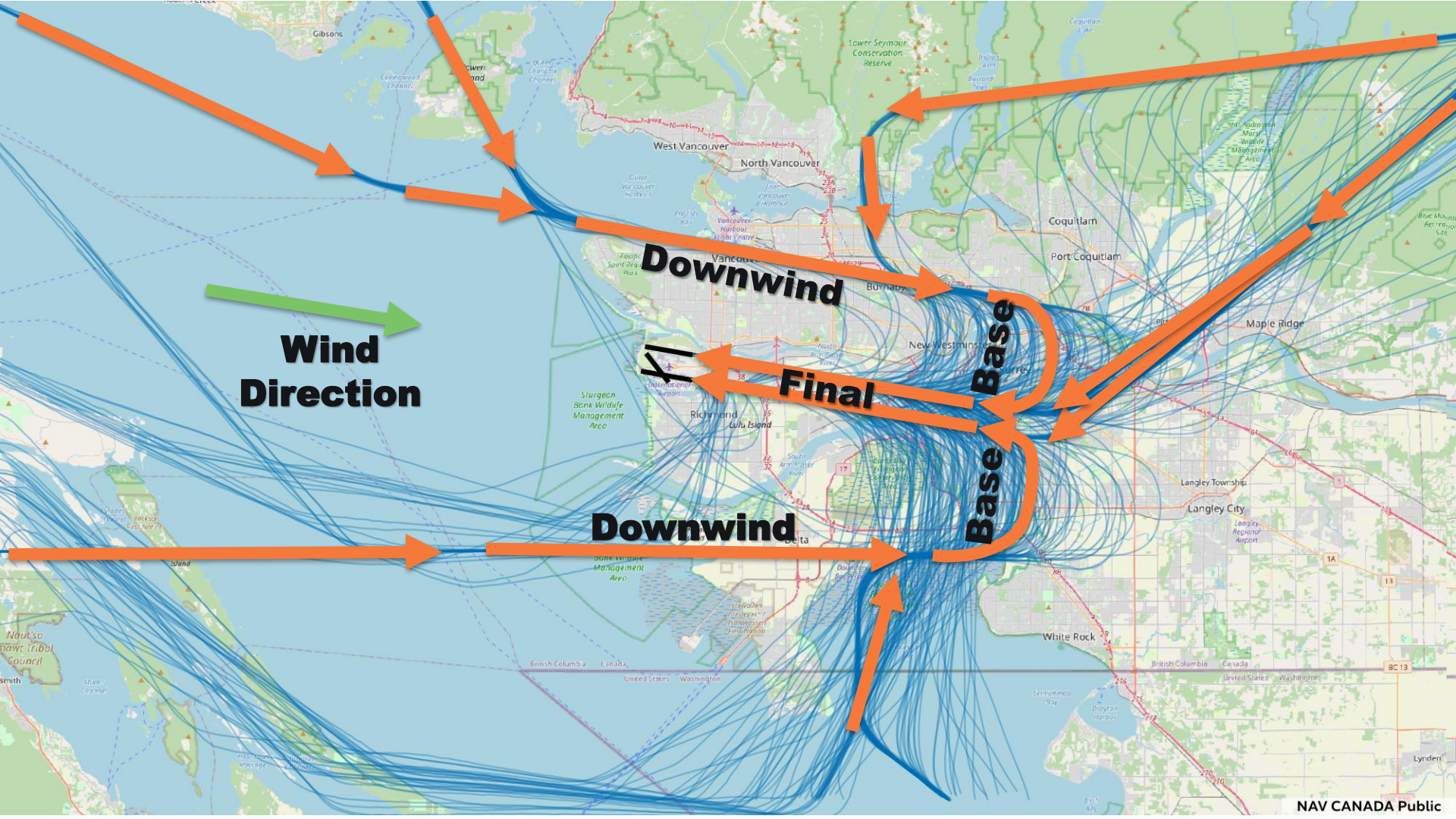
# WHY IS THIS CHANGE BEING INITIATED?

- › The industry is committed to continuous improvement and working toward minimizing and mitigating environmental impacts – noise and emissions – where possible.
- › The overarching goal is to design and implement airspace and procedures that will result in a structure that meets current and future demand while seeking to reduce environmental impacts such as noise and GHG emissions
  - Sustain safety
  - Modernize the airspace system
  - Prepare for growth
  - Balance the needs of stakeholder groups
  - Manage the impact to the environment
  - Consideration to long term plans of the industry

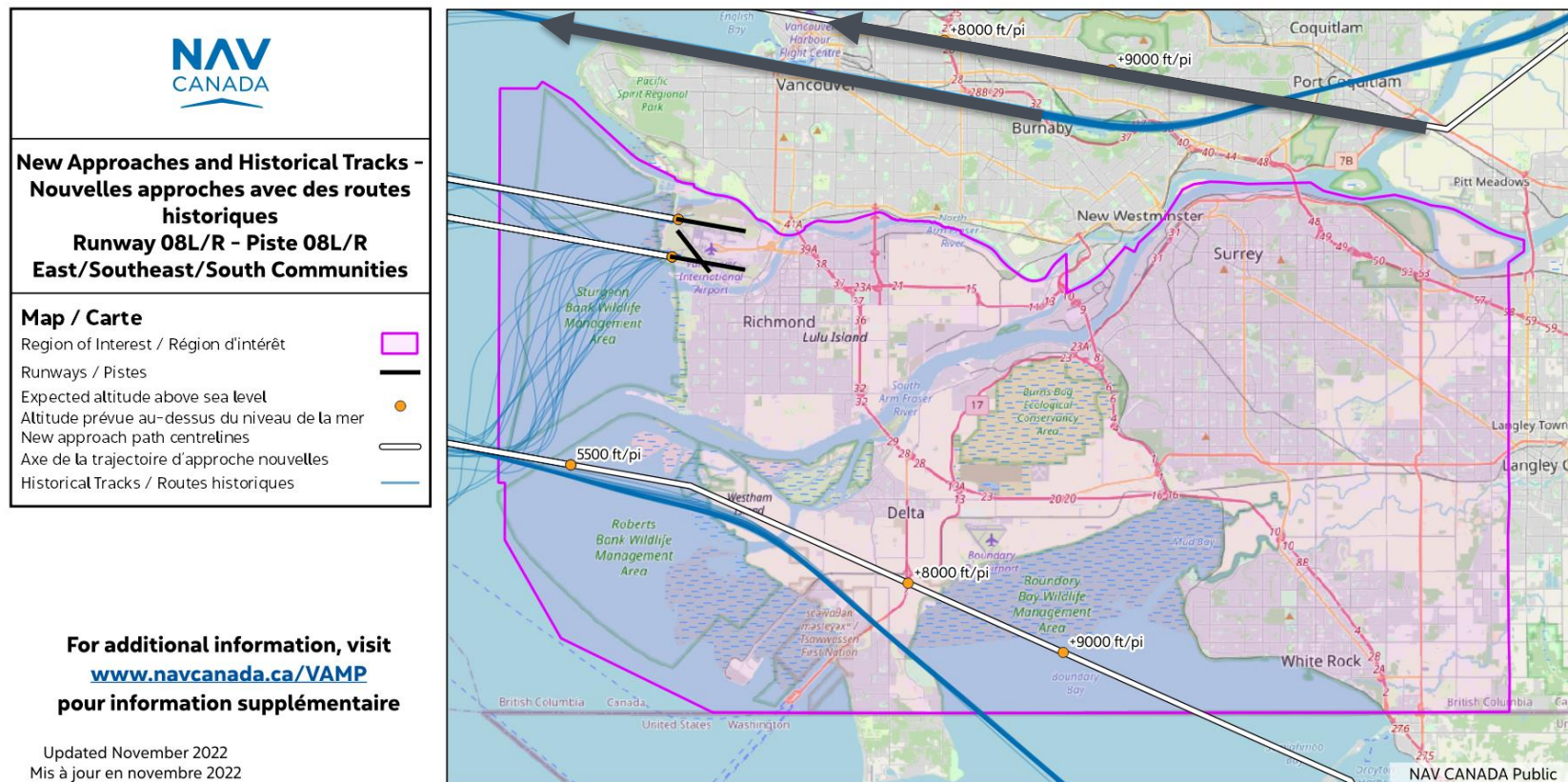
## WHAT'S NOT CHANGING

- › No changes to departure routes
- › No changes to noise abatement procedures
- › No changes to routes for smaller aircraft like floatplanes and helicopters



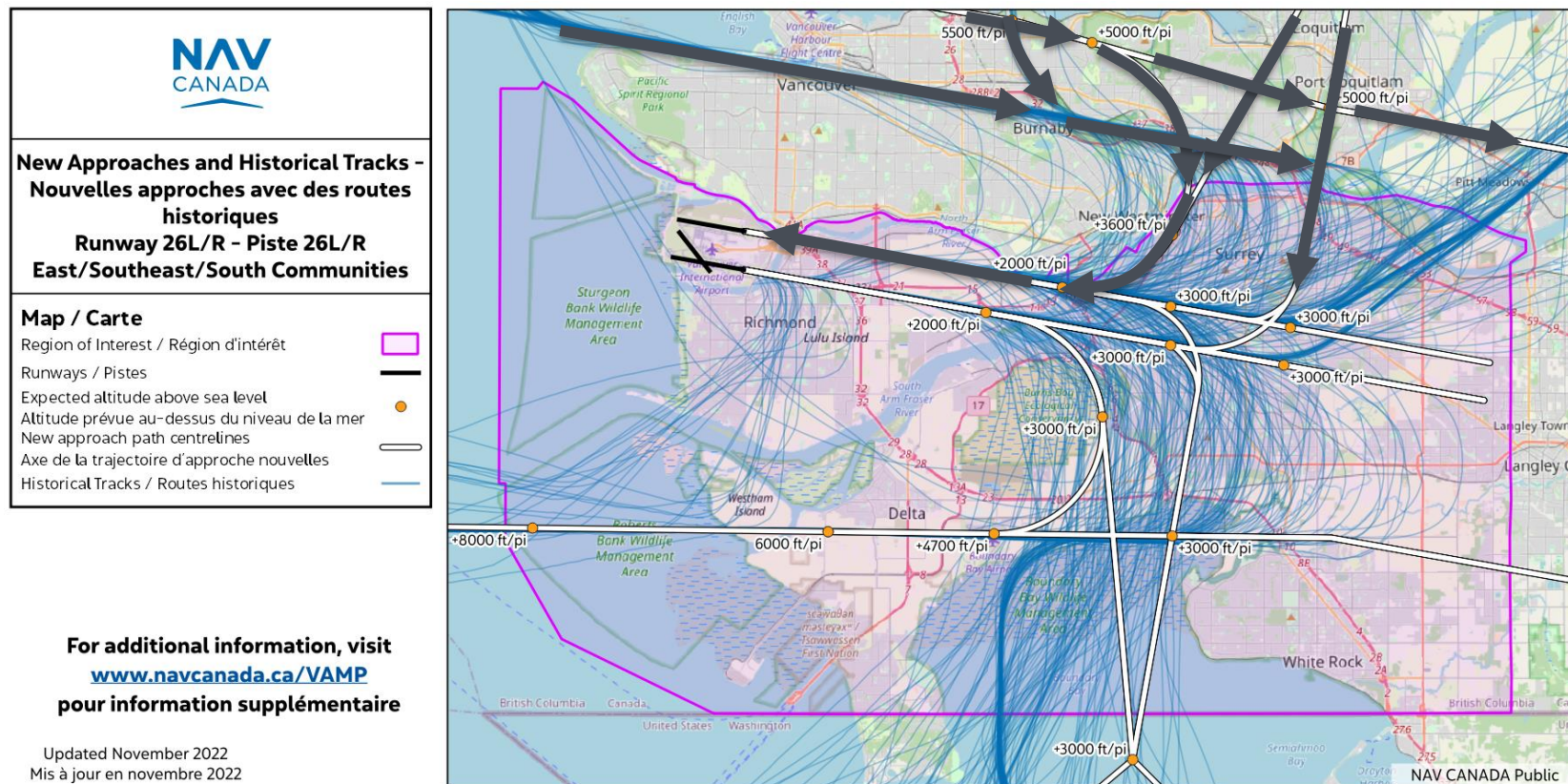


# HISTORICAL TRACKS WITH PROPOSED CHANGES

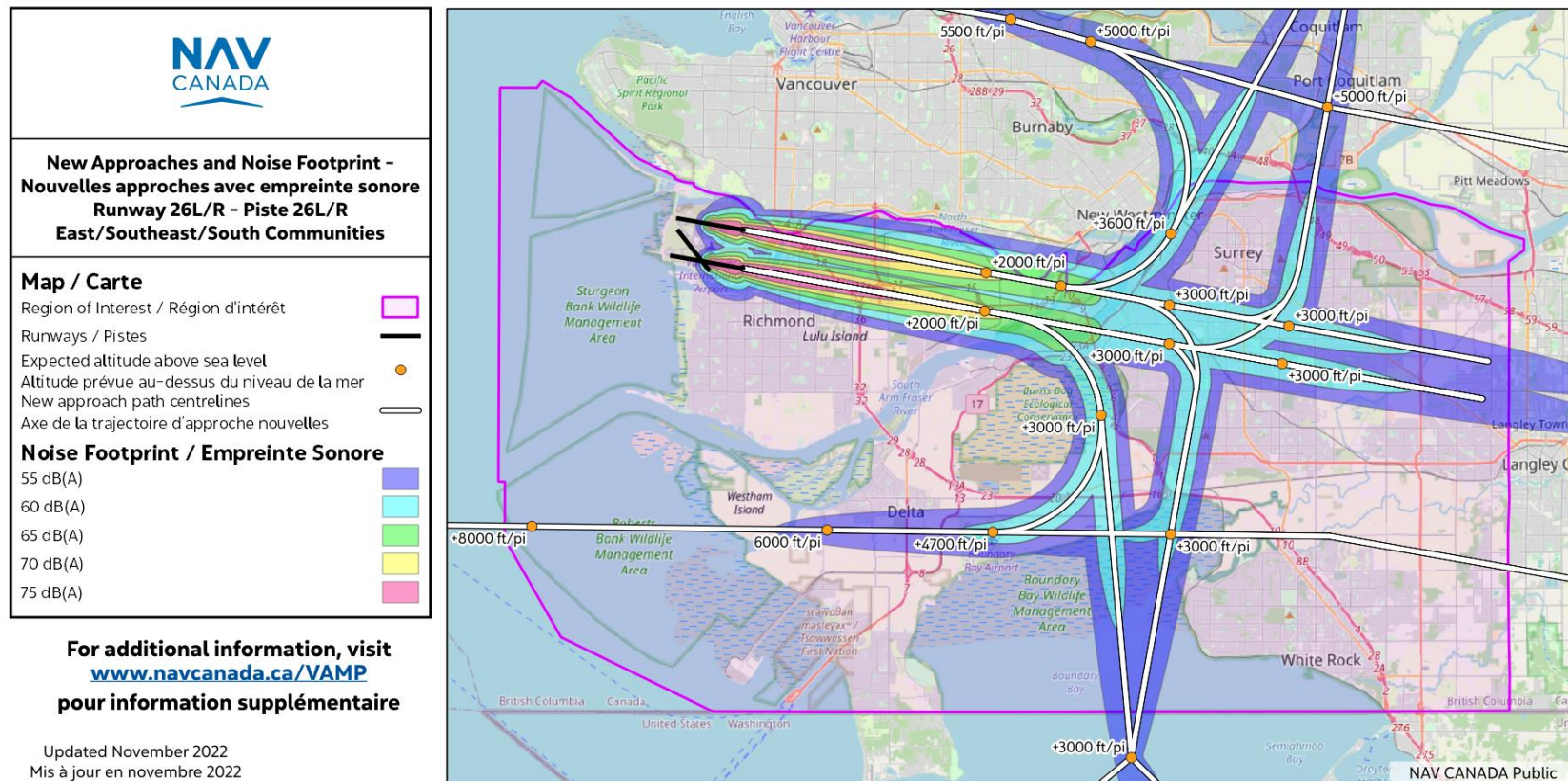




# HISTORICAL TRACKS WITH PROPOSED CHANGES



# NOISE FOOTPRINT OF NEW APPROACHES

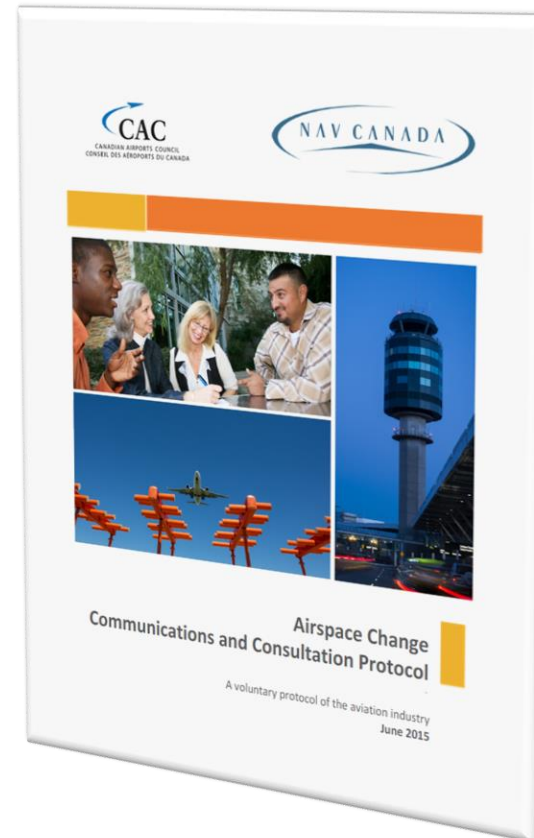




# **INFORMATION ON PUBLIC CONSULTATION**

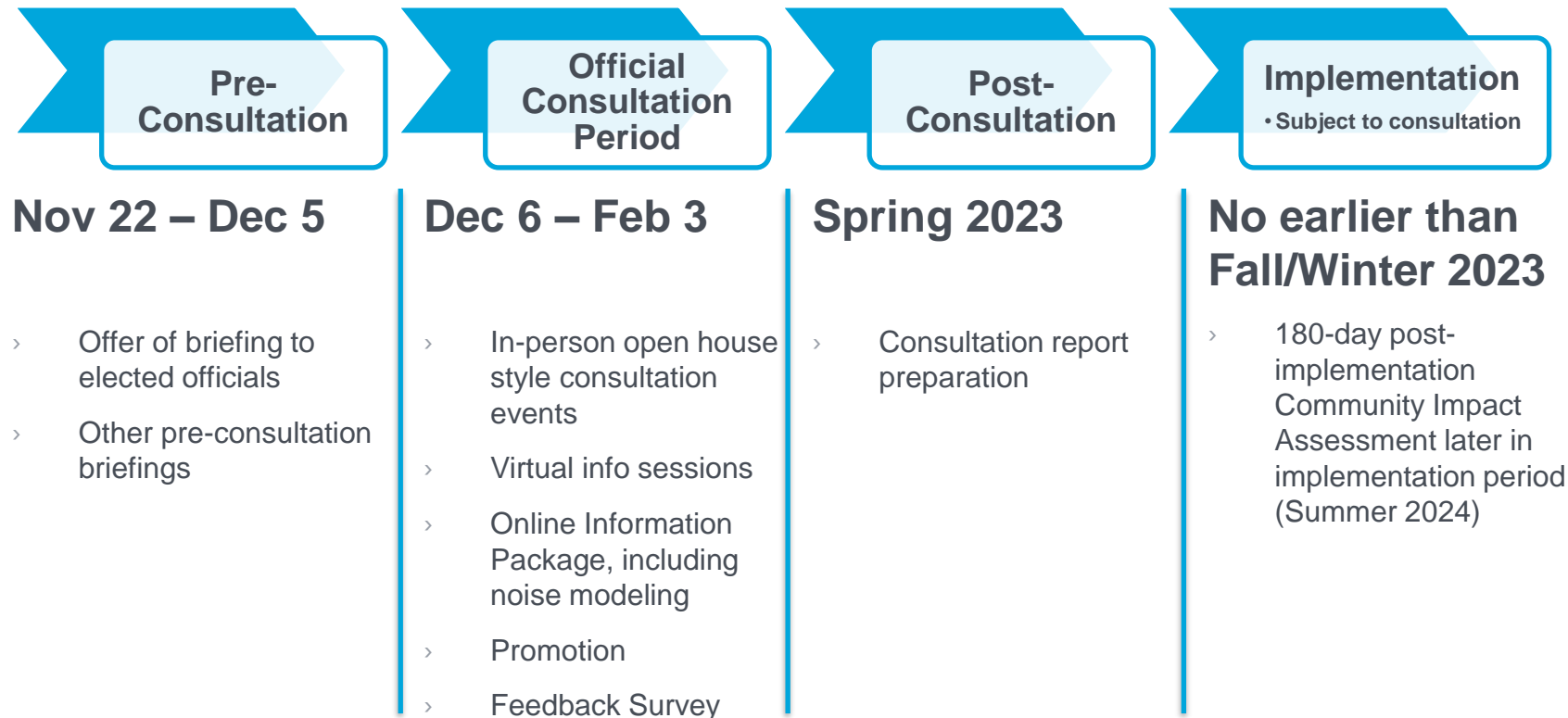
# CONSULTATION GOALS

- › Accurately communicate information about expected changes and benefits to communities, as per the Airspace Change Communications and Consultation Protocol.
- › Ensure that residents and businesses have the opportunity to learn about the proposed changes and provide their input.





# CONSULTATION MILESTONES



## POST-CONSULTATION AND IMPLEMENTATION

- › A post-consultation report detailing information and feedback obtained during the consultation period will be prepared by NAV CANADA
- › Any implementation activity will be subject to the outcome of consultations
- › An assessment of the change will be made by NAV CANADA and YVR following 180 days from implementation of RNP AR arrival routes.
- › The consultation report and 180-day review will be shared on NAV CANADA's website.



**QUESTIONS**



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# THANK YOU

