

Customer reference



NAV CANADA enhances arrival management with Frequentis AMAN

Air Traffic Management



Supporting growth and transformation

Across Canada’s extensive airspace, NAV CANADA is enhancing air traffic flow management with the Frequentis Arrival Manager (AMAN). The solution helps deliver smoother, more predictable arrivals, optimising the balance between efficiency, capacity, and safety at the country’s busiest airports.

By integrating highly precise 4D trajectory predictions and advanced planning tools, AMAN enables efficient and robust sequencing and improved coordination between control units. It allows controllers to anticipate runway usage earlier and make better-informed decisions, leading to more efficient use of runway and airspace resources, reduced workload, and measurable environmental benefits.

As part of its broader digital transformation strategy, NAV CANADA is deploying scalable solutions that strengthen service resilience and prepare its air traffic management network for future operational concepts and automation initiatives.

“We are responsible for providing the arrival controller a reasonable number of aircraft at all the different entry points, anywhere from 300 miles out. They can adjust the speed of the aircraft and descent profile leading to a stabilised approach, avoiding unnecessary fuel burn.”

Derek Decary, ATC Supervisor, NAV CANADA

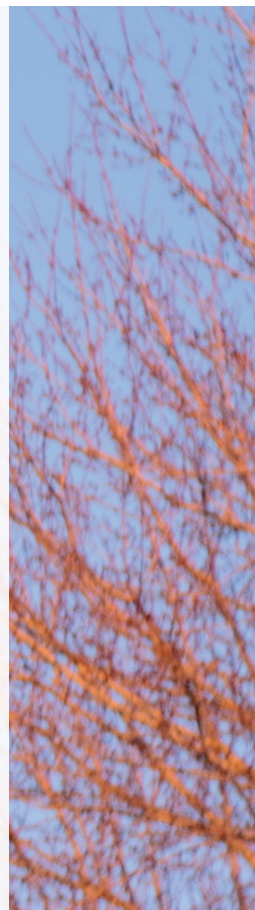


Client profile

Founded in 1996, NAV CANADA operates one of the world’s safest and most advanced air traffic systems, providing civil air- navigation services across Canadian airspace. To modernise its operations, the company is advancing collaborative initiatives like Trajectory-Based Operations (TBO) to enhance efficiency and arrival management, delivering value to all stakeholders.

Business situation

To maintain safe and efficient service as air traffic grows, NAV CANADA sought to modernise arrival management, improving predictability, coordination, and fuel efficiency through data-driven sequencing and automation.





The Frequentis AMAN supports NAV CANADA's goal of improving operational efficiency and predictability. Using trajectory data to optimise sequencing, it helps controllers balance traffic demand, capacity, safety and environmental performance across the nations network.



Delivers consistent arrival times and ensures smoother traffic management into Canada's busiest airports and across the nation's network.



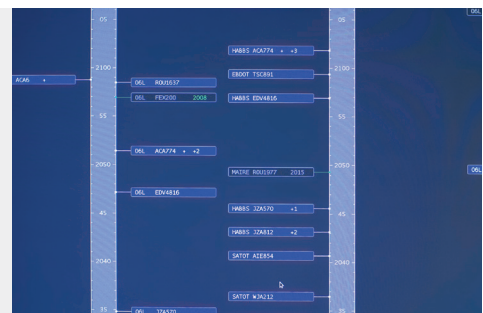
Through optimised arrival sequencing, airborne holding is reduced, supporting more efficient fuel use.



Provides shared situational awareness across airspace sectors, improving collaboration and decision-making.

“NAV CANADA is responsible for 18 million square kilometers of airspace across the country and modernizing our airspace is a key priority under our Trajectory-Based Operations initiative.”

Maxime Tanguay, Technical Services Manager, NAV CANADA



Advancing operational excellence

NAV CANADA's strategic direction includes the implementation of TBO, a transformative initiative that represents a fundamental shift from traditional air-traffic services to a system that considers the entire flight trajectory from take-off to landing. This approach minimises interventions, allowing aircraft to follow optimised routes that reduce fuel consumption and greenhouse-gas emissions.

In this context, AMAN plays a key enabling role. The system's trajectory-aware sequencing and time-based spacing directly support TBO principles by improving predictability, consistency, and coordination across the air traffic network. By extending planning horizons to 300 miles for inbound flights, controllers can align arrival sequences more accurately with airport capacity, reducing delays and ensuring stable, energy-efficient approaches. These capabilities contribute to measurable reductions in fuel burn and environmental impact while maintaining the highest levels of safety and service performance.

AMAN automatically calculates optimal landing sequences and advanced controller advisories, providing a common operational view for controllers in both terminal and enroute units. This shared situational awareness strengthens coordination, reduces workload, and supports network-wide efficiency.

Built on open architecture, the system integrates seamlessly with existing tools and offers a scalable platform for continued automation and innovation. It forms a foundation for future integration with flow-management systems, enabling progressive alignment with TBO concepts as they evolve.

The collaboration between Frequentis and NAV CANADA demonstrates how proven technology and operational innovation deliver tangible benefits in safety, efficiency, and environmental performance. With AMAN now embedded within its operations, NAV CANADA continues to lead the modernisation of air-traffic management, realising its vision for a more predictable, connected, and sustainable aviation network.

The logo for Frequentis, featuring the word "FREQUENTIS" in a bold, blue, sans-serif font. The letters are closely spaced and have a slight shadow effect.

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