

Changes to flight paths at Toronto Pearson Airport

Quick facts on NAV CANADA'S proposal

WHAT IS NAV CANADA PROPOSING?

NAV CANADA is proposing the addition of new satellite-based arrival procedures at Toronto Pearson Airport, the country's busiest airport.

The proposed procedures are known as Required Navigation Performance Authorization Required, or RNP AR. They will be deployed for two runway ends only—Runway 05 and Runway 23—and will be used by aircraft equipped with the technology to conduct the procedures. Existing arrival procedures for these runways will continue to be used by non-equipped aircraft.

The broader airspace structure and existing arrival procedures for other runways will remain in place, and no changes are being proposed for departure procedures. Learn more about the specific procedure [here](#).

WHAT ARE THE BENEFITS OF RNP AR?

Overall, the new procedures would result in fewer people being overflown at noise levels above 60 dB(A), and enable 'continuous descent operations', which are known to be 1 to 5 dB(A) quieter compared to a low-altitude level segment.

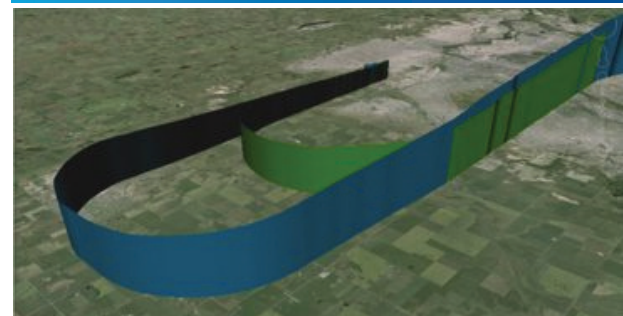
RNP AR supports environmental sustainability efforts by significantly reducing greenhouse gas emissions and delivering noise mitigation to many communities, while reducing flight times and improving operations.

**178,000
metric tons**

of greenhouse gas emissions will be avoided over 10 years

**1 to 5
dB(A)**

is the noise reduction enabled by continuous descent operations, compared to a low-altitude level segment



HOW IS RNP AR DIFFERENT FROM EXISTING ARRIVAL PROCEDURES?

While many procedures in use today leverage satellite-based positioning, RNP AR assures that aircraft can fly a highly predictable and specific flight path. This means that airspace designers have some degree of flexibility as to the flight path location, allowing them to place arrival procedures away from people, where these opportunities exist, while still meeting strict Transport Canada airspace design criteria. It also often means being able to turn aircraft towards the airport sooner, reducing the distance flown and associated emissions, compared to more conventional approaches.

While continuous descent operations (CDO) is not a new topic for Toronto Pearson Airport, RNP AR systematically enables CDO for equipped aircraft, with minimal intervention by air traffic controllers and pilots once they are established on an arrival procedure. CDO reduces noise by allowing aircraft to descend continuously and on a reduced engine setting.

30-40%

It is estimated that this portion of the fleet at Toronto Pearson Airport is equipped to fly an RNP AR procedure, and this percentage is expected to grow gradually as airlines modernize their fleets and acquire more modern and quieter aircraft.

WHAT DOES THIS MEAN FOR COMMUNITIES?

In addition to significant reductions in greenhouse gas emissions—which is a key focus of the industry and governments as they work to support greater environmental sustainability in the transportation sector—the procedures were designed to have aircraft overfly fewer homes.

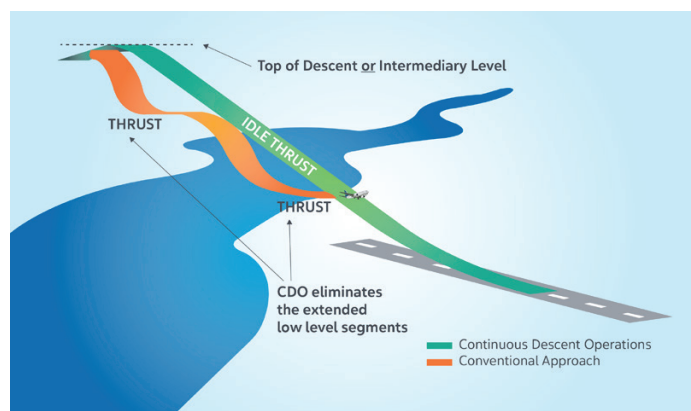
As many as 142,000 fewer residents will be overflowed at noise levels above 60 dB(A) when the procedure is used compared to an existing approach procedure.

However, despite the noise mitigation inherent in the proposal, it's important to note that entirely avoiding residentially populated areas is simply not possible and that some residents may observe aircraft operating more regularly in certain areas as they had before. Most areas surrounding the airport will continue to observe many of the aircraft operations that they do today, whether they are associated with arrivals or departures.

WHY ARE THESE PROCEDURES BEING PROPOSED FOR RUNWAY 05/23?

While it may have been feasible to propose RNP AR procedures for more runways, NAV CANADA and the GTAA are taking a responsible approach to deliver operational enhancements in a manner that mitigates noise and is cautious towards changes to the overall soundscape. Given the large population and nature of residential development surrounding Toronto Pearson Airport, such opportunities are limited. Runways 05 and 23 offer opportunities to leverage non-residential use land.

RNP AR will also provide some benefits to communities impacted by Runways 06 Left and Right and Runways 24 Right and Left and the south downwind. RNP AR will allow some arriving aircraft on those runways to stay up to 1,000 feet higher due to assured track location of aircraft arriving north of the airport. This benefit will be applied tactically, based on the traffic situation at any given time.



Public consultation, November 1 to December 17, 2021