NAV CANADA

Serving a world in motion
navcanada.ca

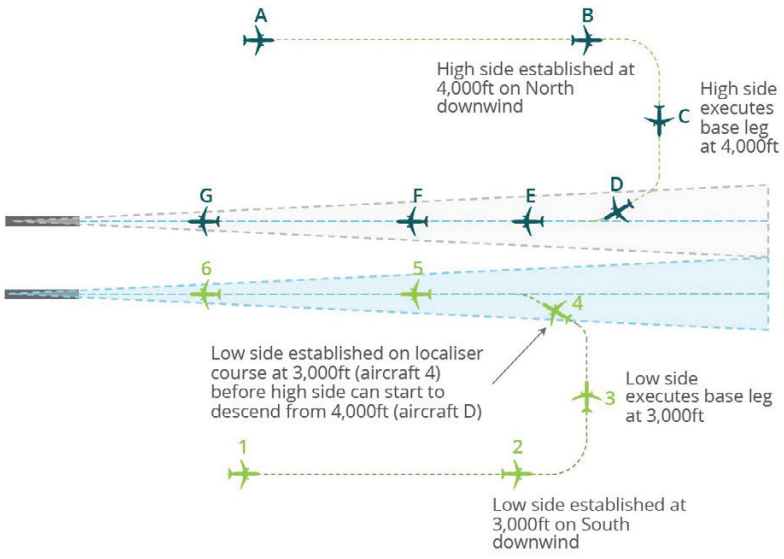
Changes to flight paths at Toronto Pearson Airport

Management of traffic on the south downwind

While the airspace structure isn't changing for aircraft arriving on the other east/west runways (Runways 06 Left or Right and 24 Left and Right), RNP AR is anticipated to provide some benefits by allowing some aircraft to stay higher when operating on the south downwind – when an aircraft is flying parallel to the runway before turning to line up with the runway.

This is made possible by a standard developed by the International Civil Aviation Organization (ICAO), known as Established on RNP AR (EoR), which is beneficial in a parallel runway environment. Due to the precise track location provided by RNP AR for aircraft arriving on the north downwind or tangent, air traffic controllers will not need to push aircraft on the south downwind to lower altitudes to provide the necessary separation.

Today, simultaneous parallel operations require air traffic controllers to apply 1000 feet altitude or 3 nautical miles lateral separation until aircraft are established on the straight in portion of the approach. As shown below, this means that aircraft arriving on the south side of the airport are directed to the final approach at approximately 4,000 feet, while those from the north must approach the final at 3,000 feet.



With RNP AR and the new ICAO standard, aircraft approaching from the south will not have to be pushed to lower altitudes because the aircraft to the south will be considered established on the RNP AR procedure.
It is important to note that this benefit will be applied tactically when the traffic picture permits and that aircraft controllers will still need to sequence aircraft by providing altitude-base separation on a regular basis.

WHAT IT MEANS FOR COMMUNITIES

It is expected that aircraft that are able to remain higher by approximately 1,000 feet on the south downwind will result in a reduction in the number of 46,000 residents overflown at noise levels above 60 dB(A) when Runway 23 is in use and 11,000 fewer residents when runway 05 is in use when compared to a typical approach used today. Again, it is important to note that this benefit will be realized on a tactical basis and that most aircraft will still need to descend to the lower altitude in order to provide safe separation. However, this benefit is expected to grow over time as the more aircraft are equipped for RNP AR.