

Notice: Alternate Departure Heading Trial

NAV CANADA, in partnership with the Calgary Airport Authority, will be conducting a trial of alternate departure headings for aircraft departing runways 17 Right (17R) and Left (17L) when in a southerly flow. The goals of the 12-month trial, which will commence in mid/late October, include:

- delivering noise mitigation to communities south of the airport,
- responding to airport infrastructure changes, and,
- improving air traffic management during high demand periods.

Existing Departure Operations

Currently, aircraft on departure climb on runway heading, or with a slight deviation from runway heading (17L). The current departure heading for 17R is 165°, while the departure heading for 17L is also 165° (155° when two runways are being used for departures). While these departure headings are necessary to the consistent and safe management of traffic at YYC, the trial will evaluate a second set of headings that will be applied tactically when conditions permit.



Figure 1: Calgary Airport operates in one of two modes for arrivals and departures when using parallel runways:

- *arrive one or two runway(s) and depart one runway (maps on left), or*
- *arrive two runways and depart two runways, known as SPID – simultaneous parallel instrument departure (map on right)*

Trial Departure Operations

In addition to continuing to utilize existing headings, air traffic controllers will be able to assign heading 135° for departures off of runway 17R and heading 185° for departures off of runway 17L. These headings will be used based on the flight plan of the departing aircraft.

Runway 17 Right

Aircraft departing 17R that are headed towards eastern destinations are more likely be instructed to utilize the new heading, thereby turning left on departure. It is anticipated that 30-50% of departures in a single departure runway mode will utilize the new heading.

The new heading provides community noise benefits by targeting commercial use land on initial take off and allowing aircraft to gain more altitude before they are directly above residentially populated areas when compared to the existing heading.

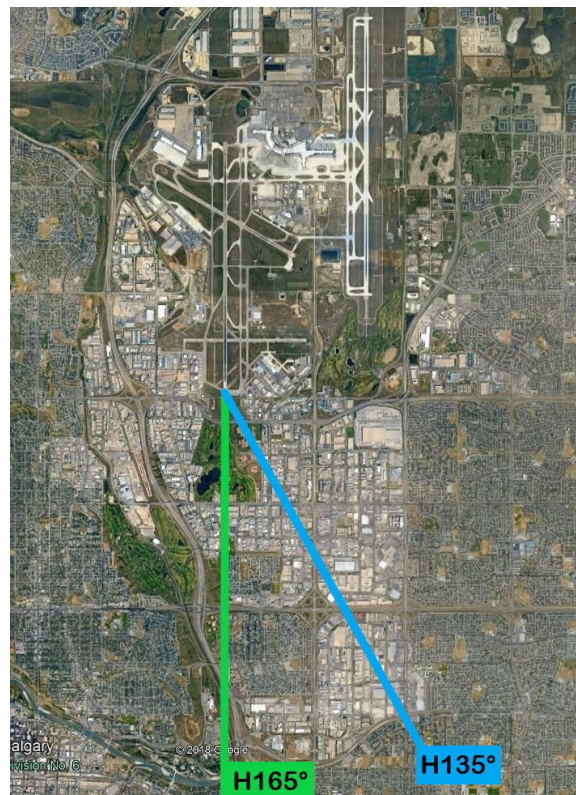


Figure 2: Existing heading for 17R in green; new heading in blue

Runway 17 Left

Aircraft departing 17L that are headed towards western destinations are more likely be instructed to utilize the new heading, thereby turning right on departure. It is anticipated that less than 15% of departures will utilize the new heading (use of the new heading is not anticipated in a single departure runway mode).

The new heading also results in aircraft over commercial use land on initial take off. Since the runway is further north compared to 17R, aircraft will gain more altitude before they are directly above residentially populated areas that would typically observe departures from 17R.

Operational Considerations

Historically, the distribution between a north (35 R/L) and south flow (17 R/L) has been approximately even; the new headings will only apply when departing runways 17 R/L. It is not anticipated that the trial will affect flow direction, as these are primarily determined by wind and weather conditions.

The ability to apply the Alternating Departure Heading Trial may be further impacted by weather, capacity considerations, construction, runway surface conditions, ground infrastructure, taxiing requirements, traffic and fleet mix and operator requests.

Summary

Through increased overflight of non-residential land, the trial is anticipated to reduce the cumulative community noise exposure for many communities south of the airport, while ensuring a safe and efficient operation. NAV CANADA and YYC are committed to providing updates over the course of the 12-month trial to YYC's Airport Community Consultative Committee, which brings together representatives from communities across the region to consider aircraft-noise related concerns and mitigations. Should you have any questions or feedback regarding the trial, please contact service@navcanada.ca.



Figure 3: Existing heading for 17L in green; new heading in blue.