AERONAUTICAL INFORMATION CIRCULAR 29/22

ESTABLISHED ON RNP AR (EoR) IMPLEMENTATION AT TORONTO/PEARSON INTERNATIONAL AIRPORT (CYYZ)

Introduction

On 03 November 2022, NAV CANADA is implementing separation standards related to Required Navigation Performance Authorization Required approaches (RNP AR APCH), as described in the *Canadian Aviation Regulations* (CARs), Standard 821 "*Canadian Domestic Air Traffic Control Separation.*"

The Established on RNP AR (EoR) procedure changes the requirement to separate aircraft conducting an RNP AR approach on one runway and an aircraft established on the instrument approach course or track on a parallel runway.

Background

EoR refers to a separation standard to be utilized during simultaneous parallel runway operations.

Using RNP AR vertical and lateral route containment, the new standard considers aircraft conducting these approaches to be established and stabilized on final after the initial approach fix (IAF). The existing requirement of 1,000 feet vertical or 3 miles lateral separation will not be required between an aircraft established on RNP AR approach prior to a designated point used by air traffic control (ATC), and an aircraft established on the approach course or track of an adjacent parallel runway.

EoR increases safety during close proximity parallel runway operations as a result of a significant reduction in the exposure time where both aircraft are "side by side," at the same altitude on final approach.

To support EoR operations, break-out procedures have been established to maintain separation in the event of a navigation error or approach irregularity. ATC instructions associated with a break-out procedure will involve radar vectors and altitude assignments.

If, after it has been determined an aircraft is established on an RNP AR procedure, the aircraft becomes unable to continue executing the procedure or adhere to the containment of the RNP AR procedure, the controller must be notified ***immediately,*** and the pilot shall be instructed to execute an appropriate break-out procedure.

Operational considerations

- Special authorization from Transport Canada is required to conduct RNP AR approaches in Canada.

- At Toronto/Pearson (CYYZ), RNP AR approach procedures are published for Runway 05 and Runway 23 only and are charted with the title RNAV (RNP) Y, with an associated transition.

- EoR will be used during simultaneous independent parallel runway operations when the ceiling is 1,000 feet and visibility is 3 statute miles, or greater. This weather minima may be reduced at a later date, after the completion of a collaborative safety and operational assessment. Automatic terminal information service (ATIS) shall indicate when simultaneous independent parallel runway operations are in effect.

- RNP AR capable aircraft will be identified to ATC by the ICAO PBN "T1" code on the operational flight plan therefore aircrews are not required to advise ATC of their RNP AR status.

- When an EoR operation is in use, RNAV Y approaches will be the only advertised approach to Runway 05 and Runway 23. RNP-AR capable aircraft that are assigned Runway 05/23 will be expected to plan and fly the RNAV Y approach.

- RNP AR (RNAV Y) approaches are **ONLY** available to Runway 05 via the BOXUM/DUVOS/IMEBA/VIBLI STARs.

- RNP AR (RNAV Y) approaches to Runway 23 are **ONLY** available via BOXUM/DUVOS/NUBER/NAKBO STARs.

- Non RNP AR capable aircraft assigned Runway 05/23 should anticipate radar vectors to an instrument landing system (ILS) approach.

- Aircraft that are RNP-AR capable but cannot fly the RNAV Y RNP AR approach must inform ATC immediately and can expect an ILS or visual approach.

- RNP AR capable aircraft that, for traffic or other reasons, are unable to be cleared using the RF transition will be advised by ATC to expect vectors to final. Aircraft should plan radar vectors to the RNAV Y RNP AR straight-in transition.

- When cleared for an RNAV Y RNP-AR approach, the aircraft is considered "established" on the approach procedure once it is on the defined lateral and vertical path and past the Intermediate Approach Waypoint (IWP)/intermediate approach fix (IF) for the procedure.

- The approach shall be flown using autopilot until the aircraft passes the final approach waypoint (FAWP).

- The planned RNAV (RNP) Y procedure and the associated **TRANSITION** must be retrieved from the flight management system (FMS) database. Manual construction of a procedure is not permitted.

- Breakout instructions and phraseology shall be briefed prior to approach clearance being received.

- Approach clearances and charted altitude and speed constraints must be complied with. The lateral and vertical path must be monitored to ensure precise navigation accuracy.

- If unable to comply with an ATC clearance or conduct the cleared approach, advise the controller as soon as possible. *Do not* attempt to manually correct or self-navigate an RNP AR approach procedure deviation.

Breakout Instructions

If an arrival is established on the cleared RNAV (RNP) Y approach procedure and the aircraft is unable to execute it, immediately advise the controller using the following phraseology, then comply with subsequent ATC instructions:

UNABLE (specific procedure), REQUEST (proposed course of action)

Example:

NAVCAN123 UNABLE ERBUS TRANSITION, REQUEST VECTORS TO FINAL

NOTE: When issued breakout instructions, reaction time is critical. If expeditious compliance is required, an ATC breakout instruction may include the word "*IMMEDIATELY*."

If required, breakout instructions will be issued on the arrival or final approach monitor frequency. No dual-frequency monitoring is required.

EoR break-out procedures may be conducted with the autopilot on.

Further information will be published in an "Attention All Users" page in the *Canada Air Pilot*, Volume 4 (CAP 4) on 03 November 2022.

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