



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Safety

800 Independence Ave
Washington, DC 20591

MAY 14 2018

Captain Mark Bradley
Chairman
Performance Based Operations
Aviation Rulemaking Committee (PARC)
Delta Airlines
1030 Delta Boulevard
Atlanta, GA 30354-1989

Dear Captain Bradley:

Thank you and the PARC for the recommendation on removing the requirement from FAA Order 8260.58 and Advisory Circular 90-101A that the completion of a turn in the final segment (a Radius-to-fix (RF)) be at least 50-seconds prior to the Decision Altitude (DA).

Your recommendation to replace the 50-second minimum with a 15-second minimum led to additional discussions with International Civil Aviation Organization partners that resulted in the suggestion that the time-based minimum segment requirement be replaced with a more easily standardized distance based requirement. For this reason, we agree to remove the 50 and 15 second requirements and replace them with the requirement that a turn in the final segment an RF be completed at least 0.5 NM prior to the DA.

An update to procedure design criteria in Order 8260.58 will reflect that the minimum Final Rollout Point distance is defined as the greater of the point on the vertical path 500 feet above the Landing Threshold Point / Fictitious Threshold Point elevation or the point in the Final Approach Segment at a distance equal to 0.5 NM prior to the DA point. AC 90-101(B) will also include this new criterion. All of which is further described in the enclosed action plan.

If you have any questions, please contact Chris Hope, Acting Manager, Flight Technologies and Procedures Division, at (202) 267-8805.

Sincerely,

Ali Bahrami
Associate Administrator for Aviation Safety

Enclosure

Removal of “50-second Rule” AVS Action Plan

Recommendation: The PARC recommends the following change to procedure design criteria:
The PARC recommends that the 8260.58 Required Navigation Performance Authorization Required (RNP AR) design criteria apply a standard minimum 15-second segment regardless of the missed approach RNP value. This should also be reflected in the update to AC 90-101A.

Discussion:

The RNP AR requirement that the end of a turn in the final segment (a Radius-to-fix (RF) be at least 50 seconds prior to the DA is contained in Order 8260.58 Chapter 4-2-2(b) and in AC90-101A Appendix 2 Figure 1. The requirement applies when the RNP value in the initial missed approach segment is less than 1 NM. This restriction on RNP AR approach design has resulted in the inability to provide a procedure in cases where it would be very beneficial operationally. The Navigation Working Group has been studying this requirement to determine if a reduction of the time delay might now be feasible, since the origin of the rule was in 2005 when RNP AR was introduced as criteria for public procedures and it was driven by avionics concerns for systems that did not automatically remain in LNAV following the start of a go-around. The PARC Navigation Working Group (Nav WG) under the PARC has reached consensus on a recommendation for moving forward.

Additional discussions with ICAO partners led to the suggestion that a more standardized distance based minimum replace the more arbitrary time-based minimum. Flight Standards proposed replacing the 15 sec and 50 sec minimums with a standard 0.5NM requirement. The Final Rollout Point (FROP) will be defined as the greater of the point on the vertical path 500 feet above the Landing Threshold Point (LTP)/Fictitious Threshold Point (FTP) elevation or the point in the Final Approach Segment (FAS) at a distance equal to 0.5NM prior to the DA point. This updated recommendation was discussed with the PARC Nav WG during the April 3, 2018 PARC Nav WG monthly teleconference.

Task 1: Update guidance in Order 8260.58 CHG 1 para 4-3-3.b and Formula 4-2-3

Responsible Office(s)	Expected Completion Date
AFS-420	Tentative: 9/30/2018

Status: Proposed: Update guidance in Order 8260.58 CHG 1 Chapter 4 para 4-2-2.b and formula 4-2-3 to reflect change in criteria for minimum FROP distance.

Proposed language:

Para 4-3-3.b Turns in the FAS and FROP. TF-TF turns are not allowed in the FAS. Where turns are necessary in the FAS, an RF leg must be established. The RF leg must terminate and be followed by a TF leg meeting FAS alignment at or prior to reaching the **minimum FROP distance**. The *minimum* FROP distance is the greater of the point on the vertical path 500 feet above LTP/FTP elevation or the point in the FAS at distance equal to ~~15 or 50 seconds~~ 0.5NM prior to the DA point. ~~The number of seconds applied is dependent on the initial missed approach RNP value (RNPIMAS) [see formula 4-2-3].~~ If an RF leg is the last leg in the intermediate segment, the PFAF must meet the minimum FROP distance.

Task 2: Update definition for minimum FROP in AC 90-101A

Responsible Office(s)	Expected Completion Date
AFS-470	Tentative: 12/31/2018

Status: Proposed: Ensure that the updated definition of FROP is included in AC 90-101B (scheduled for publication in CY 2018).