

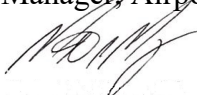


Federal Aviation Administration

Memorandum

Date: December 13, 2022

To: All Airports Regional Division Directors

From: Michael A.P. Meyers, P.E.
Manager, Airport Engineering Division, AAS-100


Prepared by: Mike Rottinghaus, P.E., AAS-110

Subject: Engineering Brief No. 89A, Taxiway Nomenclature Convention

This Engineering Brief (EB) provides supplemental guidance for the taxiway naming convention guidance currently provided within paragraph 1.4 of Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5340-18G, Change 1, *Standards for Airport Sign Systems*.

This EB clarifies the proper application of alphanumeric taxiway designations. This EB does not establish a requirement for an airport to take immediate action to change current taxiway designations that are not in full conformance with FAA standards. FAA expects airports with non-conforming taxiway designations to establish a plan that leads to managed change over time utilizing the airport development planning process.

Attachment



**FAA
Airports**

ENGINEERING BRIEF #89A Taxiway Nomenclature Convention

1. Purpose.

This Engineering Brief (EB) clarifies taxiway naming standards and guidelines in FAA Advisory Circular (AC) 150/5340-18G, Standards for Airport Sign Systems, as it relates to the use of alphanumeric taxiway designations.

2. Applicability

The guidance herein is not legally binding in its own right and will not be relied upon by the FAA as a separate basis for affirmative enforcement action or other administrative penalty. Conformity with this guidance is voluntary only, and nonconformity will not affect rights and obligations under existing statutes and regulations except as referenced in paragraph 2 of AC 150/5340-18G for projects funded under the Airport Improvement Program or with Passenger Facility Charge funds or similar federal funding programs.

3. Effective Date

This EB is effective as of the signature date of the Manager, FAA Airport Engineering Division, AAS-100.

4. Background.

Current language in paragraphs 1.4.4 and 1.4.5 of AC 150/5340-18G may lead some users to conclude the use of alphanumeric taxiway designations for short taxiway connectors are not permissible until the airport exhausts all double-same alphabet letters. This is not FAA's intent as demonstrated in Figure 1-2, Typical Taxiway Layout. (See end of EB for copy of figure 1-2)

Use of alphanumeric taxiway designations is the optimum convention for naming short taxiway connector segments such as stub taxiways, entrance taxiways, exit taxiways, bypass taxiways and crossover taxiways. Applying an alphanumeric naming convention with progressing numbering for short taxiway connectors establishes a logical sequence that enhances pilot awareness of location. This does not preclude smaller airports with non-complex runway/taxiway systems from using single letter designations for short taxiway connectors.

5. Implementation

Implementing the supplemental guidance in this EB, along with the standards in AC 150/5430-18G, optimizes taxiway naming resulting in a simple and logical system that facilitates efficient taxiing of aircraft. Apply the guidance in this EB when developing or revising an airport signage plan, updating an airport layout plan or designing for a new taxiway development project. A modification of standards (MOS) is not necessary to implement these guidelines.

FAA recognizes implementation of extensive changes to an existing taxiway system may create a situation of temporary risks for confusion as pilots and controllers become acclimated to new taxiway designations. Where existing taxiway systems do not conform to these guidelines or AC 150/5340-18G standards,

implement the naming convention incrementally overtime to diminish any disruptive effect. FAA expects nonconforming airports to develop a plan implementing incremental changes over time that ultimately result in a taxiway system fully conforming to these naming guidelines.

6. Supplemental Guidance

The following supplemental guidance clarifies the current language in paragraphs 1.4.4, 1.4.5 and 1.4.6 of AC 150/5340-18G.

Paragraph 1.4.4.

Current Language:

After all available single alphabetic letters have been utilized, then designate taxiways with double-same alphabet letters (for example, AA, BB, ..., ZZ). Double-different alphabet letters (e.g., AB, CD, ..., ZW) taxiway designations are not allowed.

Supplemental Guidance:

1. The use of double-letter alphabet designations (e.g. AA) is acceptable only after applying all available single alphabet letters.
2. Due to limitations on Advisory Circular guidance, the use of double-different letter designations (e.g. AB, CD, EF, etc.) is a nonstandard practice versus a prohibited practice. Double-different letter designations introduces a risk for communication confusion between the pilot and the controller. For example, a pilot may interpret a controller instruction for taxiway Alpha-Bravo as taxiway alpha and taxiway Bravo. The use of double-different letter designation may be acceptable at locations where a local assessment establishes a low risk for communication confusion between pilots and the controllers.
3. Note: The use of alphanumeric designations for short connecting taxiway segments per paragraph 1.4.5 reduces the likelihood of exhausting all single alphabet designations. This diminishes the need to use double-letter alphabet designations.

Paragraph 1.4.5.

Current Language:

After all available single and double same-alphabet letters have been utilized, use two-character alphanumeric designations such as "A1." (See Figure 1-2.) Use a single digit numeric character from 1 to 9. (See paragraph 1.4.6 for the use of two-digit designators). Also, alphanumeric letters followed by a numeric character should not be followed by an alphabetic character.

Supplemental Guidance:

1. The intent of the first sentence is to limit the use of alphanumeric designations on primary taxiway routes such as parallel taxiways and lengthy taxiway routes. It is not FAA's intent to limit use of alphanumeric designations on short connecting taxiways until an airport exhausts designation ZZ. Figure 1-2 illustrates this point.
2. The limitation on the use of numeric characters 1 through 9 applies to primary taxiway routes. It does not apply to short connector taxiways.
3. The numeral "0" (e.g. A0) introduces a risk of confusion with the letter "O".
4. The use of a letter immediately following an alphanumeric designation (e.g. A2A) is a nonstandard application.
5. Effective use of alphanumeric designations for connector taxiways significantly diminishes the need to using alphanumeric designation on primary taxiways.

Paragraph 1.4.5.1

Current Language:

For stub taxiways at large airports with numerous taxiways, use alphanumeric designations (“A1”, “A2”, “A3”, etc.). A stub taxiway is defined as a taxiway that connects a runway to a parallel taxiway or a taxiway to an adjacent apron area. In such instances, the stub taxiways are designated as “A1”, “A2”, “A3”, etc. to promote positive location identification and reduce the risk of runway incursions.

Supplemental Guidance:

1. The use of two character alphanumeric designations (e.g. A1, B2, C3, etc.) for short-connecting taxiways, also known as stub taxiways, is separate from the guidelines in paragraphs 1.4.3 and 1.4.4.
 - a. The application of alphanumeric designations for taxiway connectors optimizes taxiway naming establishing a simple and logical taxiway system.
 - b. The use of sequential alphanumeric designations promotes pilot identification of connecting taxiways facilitating effective ground navigation.
2. For non-complex airports, those with a single runway and few connecting taxiways, the use of alphanumeric designations represents the preferred naming convention for short taxiway connectors; however, the use of single letter designations for short taxiway connectors is acceptable in lieu of alphanumeric designations.

Paragraph 1.4.5.2

Current Language:

For a runway with a parallel taxiway, use alphanumeric designators at the entrance and exit taxiways located at the ends and along the runway. Apply an increasing, sequentially numbered pattern from one runway end to the other runway end, such as A1, A2, ..., A5.

Supplemental Guidance:

1. The naming convention for alphanumeric designations on taxiway connectors is application of the primary taxiway letter followed by the applicable numeral designation of the taxiway connector. For example, taxiway C5 is a taxiway connector originating from primary taxiway C. The numeral never precedes the letter character.
2. Apply alphanumeric designation in a sequential manner. For runways with a parallel taxiway, apply numeral “1” at the first connecting taxiway and progress to the end connecting taxiway in an increasing manner (e.g. A1, A2, A3...A7) as illustrated in Figure 1-2.
 - a. Applying distinct alphanumeric designations for runway end connectors eliminates the situation where two end-connector taxiways at opposite ends of a runway have the same designation. For example, Taxiways A1 and A7 in Figure 1-2 establishes two separate and distinct taxiway intersections with Runway 13L/31R.
 - b. It is acceptable to omit a number to account for future development of a connecting taxiway or to avoid potential confusion with a runway designation. See 1.4.5.5.
 - c. It is acceptable to apply even numbers to connector taxiways on one side of a parallel taxiway and odd numbers on the opposite side provided such application is logical and consistent.

Paragraph 1.4.5.3

Current Language:

For a runway with parallel taxiways on opposite sides of the runway, use the respective parallel taxiway single alphabet designation along with the addition of a numeric designation (e.g. A1 and

B1) at entrance taxiways to the same runway end. In this situation, the numeric designation on opposite sides of the runway can be the same or different, (for example, A1 and B1, or A1 and B5).

Supplemental Guidance:

1. To promote positive identification of location on runways with parallel taxiways on opposite sides, apply the respective parallel taxiway alphabet designation along with the appropriate numeric designation for each connector. For example, parallel taxiway A will have sequential stub taxiways A1, A2, A3, etc. whereas taxiway B on the opposite side of the runway will have B1, B2, B3, etc. See Figure 1-2.
2. It is acceptable for the direction of increasing numerals characters to differ on opposite parallel taxiways. For example, the direction of increasing alphanumeric designation from parallel taxiway A may increase from north to south while the corresponding designation for opposite taxiway B may increase from south to north.

Paragraph 1.4.5.4

Current Language:

For busy or high-traffic crossing taxiways, make the taxiway designator on each side of the runway be the same. The airport operator, in consultation with the local Air Traffic Control Tower (if present), determines which taxiways constitute busy or high traffic taxiways. For all other taxiways that connect to or cross a runway, make the taxiway designations on each side of the runway different.

Supplemental Guidance:

1. At high-traffic crossing taxiways between runway ends, it is acceptable to interrupt the alphanumeric sequence and use the same taxiway designator on each side of the runway to facilitate taxi instructions for high traffic taxi crossing routes. See Taxiway J in Figure 1-2.
2. The airport operator, in consultation with the local Air Traffic Control Tower, determines which taxiways qualify as high traffic crossing taxiway routes.
3. For all other taxiways that connect to a runway, especially entrance taxiways at the runway ends, use distinct taxiway designations on opposite sides of the runway to differentiate the locations.

Paragraph 1.4.5.5

Current Language:

Number and letter combinations should not result in confusion with runway designations. For example, if an airport has a runway "4L," do not use a taxiway designation of "L4".

Supplemental Guidance:

1. Avoid use of number and letter combinations that are similar to a runway designation to limit the risk of a pilot unintentionally transposing the characters thus affecting situational awareness.

Paragraph 1.4.6

Current Language:

When all available two-character alphanumeric names have been used, three-character alphanumeric names such as A12, A11, etc. can be used. However, the use of these three-character alphanumeric designators is not recommended unless the total number of entrance, stub, by-pass, crossing, and exit taxiways for a runway or apron (terminal) exceeds nine.

Supplemental Guidance:

1. Use of numerals beyond the number 9 (i.e. 10, 11, 12...) for taxiway connectors is acceptable provided such application is logical and necessary.

Figure 1-2. Typical Taxiway Layout.

