

**AERONAUTICAL CHARTING MEETING**  
**Instrument Procedures Group**  
**Meeting – October 25 - 26, 2021**

**RECOMMENDATION DOCUMENT**

**FAA Control # 21-02-357**

**Subject: Five Letter Alphanumeric Waypoint Identifiers**

**Background**

FAA JO Order 7400.2, Procedures for Handling Airspace Matters, paragraph 20-5-3. Waypoints, establishes the requirement for waypoint names:

c. Waypoint names must consist of a single, five-letter pronounceable name. Five-letter names are assigned by AIS (see paragraph 3-3-4 in this order).

The availability of easily pronounceable five-letter names is becoming problematic. The result is often waypoint names that contain only consonants that do not lend themselves to easy pronunciation, or the frequent use of similarly sounding waypoint names in the US NAS (e.g., NAVVY, NAAVY, etc.). The latter concern is the subject of two ACM IPG issues: 15-01-320 Common Sounding Fix Names and 21-01-356: Common Sounding Fix Names. Further complicating the issue are ICAO Standards and Recommended Practices (SARPS) through the ICAO International Codes and Routes Designators (ICARD) system that places limitations on the repeated use of the same waypoint name based on close geographic regions.

These requirements are impacting the number of five-letter, pronounceable waypoint names that are available for use on instrument flight procedures, and that are required for Air Traffic Control use in voice clearances.

**Discussion:**

ATC needs to be able to issue clearances to a waypoint using voice communications. Therefore, these waypoint names must be clearly pronounceable while not being similar in name or sound to other waypoints in the same area. However, there are a number of instrument procedure waypoints that will not be used in conjunction with an ATC clearance. For example, ATC is not permitted to clear an aircraft to a fix that begins a radius-to-fix (RF) leg, nor do they generally clear aircraft to fixes along the missed approach path to the final missed approach holding fix.

Many foreign states use alphanumeric waypoint names on instrument procedures for waypoints not likely to be used in association with an ATC clearance. In Fig 1, Fig 2, and Fig 3, we provide three examples of foreign approaches using alphanumeric waypoints.

FAA Order 7110.65 Air Traffic Control, paragraph 4-8-1 permits ATC to clear aircraft to waypoints on an instrument approach; the most common of these waypoints are the IAF, the IF, and the FAF, which are appropriately annotated as such on the IAP chart. These names

associated with these three charted waypoint types would need to retain a 5-letter pronounceable name. The same is true for the missed approach termination/holding waypoint since the pilot is required to report holding entry. Other waypoints associated with an approach could have alphanumeric waypoint names. These include final approach segment stepdown waypoints, intermediate segment stepdown waypoints where ATC does not anticipate a need to issue a direct-to clearance, and any waypoint that begins an RF leg. Alpha-numeric waypoints would be especially useful on those waypoints associated with track-to-fix (TF) legs supporting RF-TF concurrent operations (see ACM-CG 21-01-354 Concurrent Operations with RF and TF Legs).

Graphic RNAV Obstacle Departure Procedures (ODP) are another instrument procedure where using alphanumeric waypoints would be beneficial since ATC cannot intervene with an aircraft departing using an ODP.

Standard Instrument Departures (SIDs) and Standard Instrument Arrivals (STARs) could also benefit, especially when more advanced RNAV features such as RF legs and Advanced RNP (A-RNP) are applied to certain legs or the entire procedure. Waypoints associated with procedure segments on a SID or STAR where ATC does not need to intervene or where they are unable to do so due to procedure design constraints are also candidates for the use of an alphanumeric waypoint name.

Finally, FAA can consider developing and formalizing a naming scheme for alphanumeric waypoints to help identify the segment of the approach, e.g., initial, intermediate, final, missed approach. This was a recommendation of a recent ACM-IPG agenda item (see 21-01-356 Common Sounding Fix Names).

### **Recommendations:**

NBAA recommends that FAA change applicable orders and guidance to allow the use of a five-character, alphanumeric waypoint name on instrument flight procedures. FAA should also identify when a five-letter pronounceable waypoint name is required to be used on an instrument flight procedure to support ATC voice communications, and further describe when use of an alphanumeric waypoint name is more appropriate. FAA should explore developing a waypoint alphanumeric naming scheme to identify a waypoint in the initial, intermediate, final, and missed approach segment to establish some consistency in waypoint names on an approach.

**Comments:** This recommendation affects FAA JO Order 7400.2, Procedures for Handling Airspace Matters. The recommendation may also affect waypoint naming procedures/constructs in FAA Orders 8260.3 and 8260.19.

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**Date:** August 27, 2021

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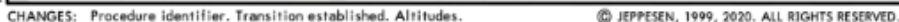


Fig 2

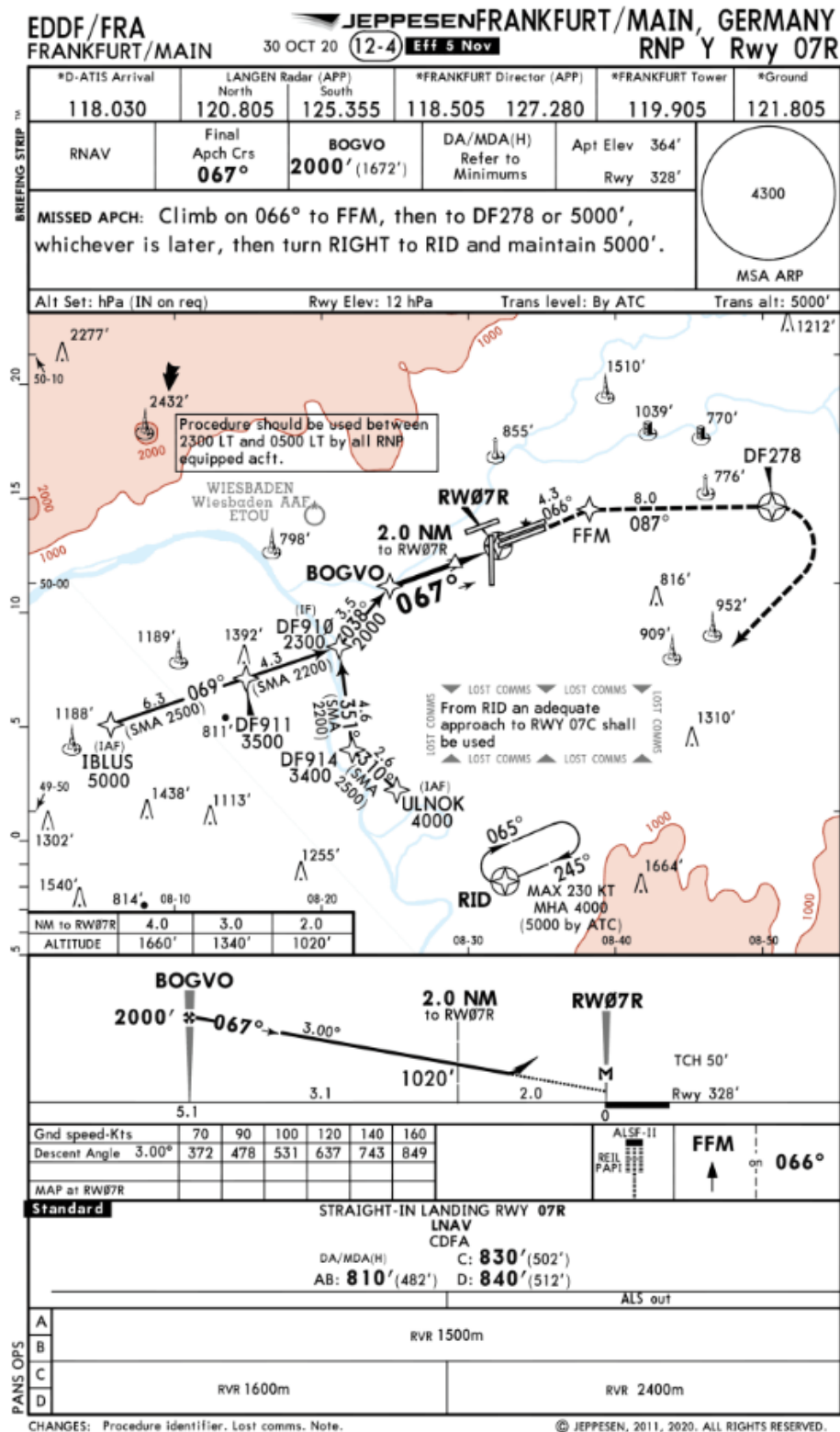
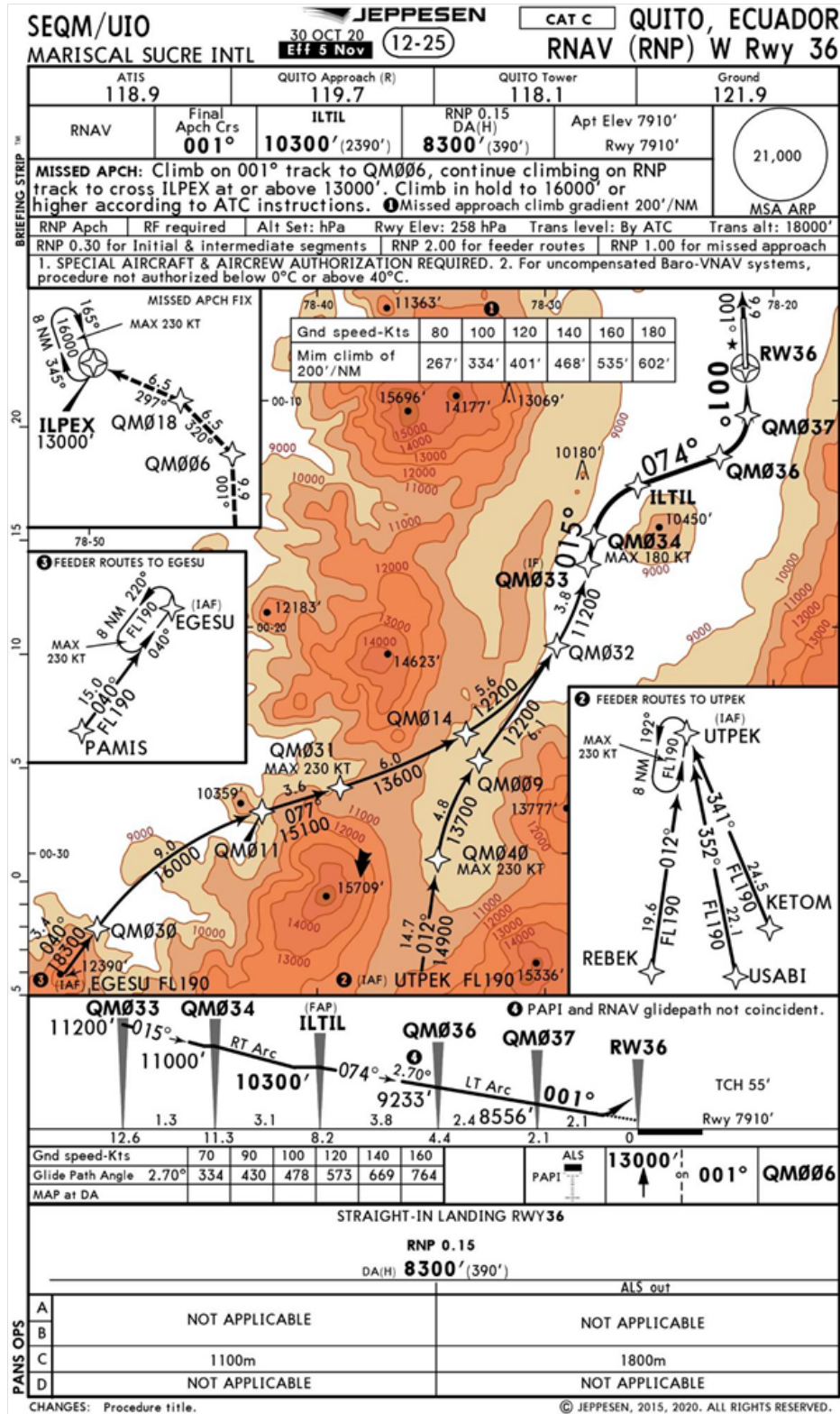


Fig 3





**Initial Meeting 21-02:** Rich Boll, NBAA, briefed the new issue using [slides](#). FAA Order 7400.2, Procedures for Handling Airspace Matters, establishes the requirements for waypoint names. These must consist of a single, five-letter pronounceable name, and are assigned by AIS. The availability of these is problematic, as addressed by ACM-IPG recommendation documents (RDs) 15-01-320 and 21-01-356. Rich discussed that not all instrument procedure waypoints are spoken by ATC (examples on slides). Rich identified [ICAO requirements in Annex 11](#), Appendix 2 on significant waypoint naming; specifically that a significant waypoint not at the site of a navigation aid shall be designated by a five-letter pronounceable name-code and chosen to avoid pronunciation difficulties and ambiguity with other points in the same general area. Rich also noted that ICAO Doc 8168 ([PANS OPS](#)) Volume 1 allows for the use of 5LNC or a five-alphanumeric name code for waypoints in support of PBN SIDs, STARs, and instrument approach procedures. Rich displayed on a slide ICAO PBN waypoint naming conventions, and displayed charts showing [examples](#) of various waypoints that would or would not need to be pronounceable based on whether or not that fix name would need to be spoken in ATC communications. Rich discussed on a [slide](#) FAA ATC use of waypoints, per FAA Order 7110.65 on IAPs where there is a need to retain a pronounceable 5 letter name code, and discussed on a [slide](#) where alphanumeric name code waypoint usage could instead be utilized. Rich discussed an effort to publish [RF/TF](#) concurrent operations charts, adding these will require many new waypoints which will not be used in ATC clearances and could be alphanumeric. Rich showed NBAA's recommendations on a [slide](#), which would align with current ICAO standards. Michael Stromberg, UPS, said he had been flying overseas frequently, and said these recommendations would work very well and align with other states. He added that concerns about a clearance to an alphanumeric fix is not an operational problem and there is no confusion. Kevin Kessler, AFFSA, said he believes a revision to FAA Order 7400.2 may have incorporated some ICAO alphanumeric convention verbiage, adding it included a lot of what Rich was recommending. Rich had not seen this, and requested a copy. Andre Durocher, GA pilot, restated his naming convention suggestions from a previous recommendation document, and Jeff said anything related to that prior RD would be considered with the current RD since the previous RD was not accepted for continuation. Krystal Kime, FAA Aeronautical Information Services Terminal Charting, stated she liked the proposal, but strongly recommended not using 0 (zero), but only the numerals 1 – 9 if the proposal was adopted. Jeff Rawdon, FAA Flight Procedures and Airspace Group (FPAG), noted the attendees seemed in favor of the NBAA proposal, the recommendation would be considered by the Agency, and the RD would be continued on future agendas, with status reports provided at future meetings.

**Actions:** Issue accepted for continuation on the agenda. The Agency will review the proposals for impact and report at the next ACM.

**Status:** Item open

**Meeting 22-01:** Jeff Rawdon, FAA Flight Procedures and Airspace Group (FPAG), briefed the issue ([slide](#)). Jeff said this item was reviewed by the ACM Recommendation Review Group (ARRG), and the Group decided this would not be accepted for work to be taken on by the Agency. There are currently over 49,000 fix names available, and the Group determined the effort necessary to make the necessary changes across the various directives, publications, automation systems, work processes, etc. would be significant and would not provide significant benefit. Michael Stromberg, Independent Pilots Association (IPA)/UPS, said the United States continues to be a global outlier, adding there is no problem using five-character alpha-numeric fix on procedures as they are used by other States. He also said they work well and are clear and easy to understand for use in communications. Jeff said the ARRG did not say they would not work, just that the need is not there at this time. Rich Boll, NBAA, agreed with Michael on the clarity and ease of use, and asked if this was an ATC issue. Rich wanted the rationale for non-acceptance of the issue included in the history of the issue, and Jeff agreed. {Editor's note: This is the summary from the AARG decision "With approximately 50,000 pronounceable fix names either reserved or available for use (and more possible beyond that), the group felt there was no justification for the recommendation related to a lack of fix names. Since the recommendation was only related to fix names that wouldn't be used in AT communication, this would do nothing to address the concern of inconsistent fix name pronunciation."} Michael thought limiting the RD to just pronounceable names may have been a mistake, and hopes the FAA might reconsider in the future for a broader use as discussed. Mike thought this should remain an open topic for the future, but Jeff said it should only be addressed as a new issue later if needed, especially considering the workload that currently exists. John Moore, Boeing/Jeppesen, said unless the United States is going to create a naming system for using alphanumeric fix names, he agrees with the ARRG decision. Gary Fiske, FAA ATC Procedures (Terminal) Team (AJV-P310), said ATC facilities that have the best names reserved will be reluctant to relinquish them. Pat Mulqueen, FAA Instrument Flight Procedures Group (AJV-400), commented he is surprised the ARRG is not accepting this issue for work. Pat added it is difficult for procedure developers to find new names if they aren't provided names already reserved by ATC. Rich said this decision would be disappointing to the many groups he has talked with, but does understand the workload issue. Joshua Fenwick, Garmin, asked if this can be revisited by the ARRG, and Jeff said for this given RD it would not be since the decision was made that the proposed need and benefits did not justify the effort required. John Barry, FAA Aircraft Certification, said he participated in the ARRG meeting, and noted the group did see some possible benefit, but due to the limited scope of the proposed benefits in the RD, the group did not see the adequate need for the amount of work required. Michael suggested this change will be needed eventually, it will take years to accomplish, and a new RD with additional information should be submitted. Rich discussed how the ARRG process does not seem to allow for the modifications of, or even complete explanations of some RDs as necessary to refine the recommendation. Rich asked if the proponent of a specific RD can be present at the ARRG discussion, and Jeff said that could be a consideration for future meetings. Dan Wacker, FPAG, pointed out fix names currently in use can become available again as procedures are canceled. Jeff said based on the ARRG decision, the issue is closed.

**Status:** Item closed.