

**AERONAUTICAL CHARTING FORUM
Instrument Procedures Group
Meeting 12-01 – April 24, 2012**

RECOMMENDATION DOCUMENT

FAA Control # 12-01-248

Subject: NEXTGEN Procedure for the Naming of Aeronautical Navigation Aids

Background/Discussion:

As the FAA begins to implement its program to decommission land-based navigational aids (NAVAIDs) in favor of GPS-based waypoints, it has become clear that there needs to be a process to transition from the traditional three-letter identifier into the five-letter NEXTGEN system. Specifically, there is no guidance on incorporating current geographically-significant identifiers scheduled for decommissioning into the aeronautical database (Ref: FAAO 7350.8, 1-2-7 Assignment System). Current practice calls for replacing a three-letter VOR, VOR/DME, VORTAC, or TACAN facility slated for decommissioning with a single, five-letter pronounceable waypoint offset of the original NAVAID. This is contrary to FAA Order 7350.8S, which states:

A single five-letter pronounceable combination serves as the fix name, assigned identifier and computer code. If a new fix is to be collocated with an existing navigational aid, ILS marker, waypoint, or other type fix, the original name or name-code applies to both.

The recent proliferation of five-letter identifiers has proven problematic for controllers and pilots alike with regards to a pronounceable combination, as well as creating memory-storage issues in FMS applications. Furthermore, the reliance on the current three-letter nomenclature for SIDS/STARS, as well as the NEXTGEN Q-Route structure cannot be overstated.

Much more significant, however, is the loss of geographical reference points with the elimination of the three-letter identifier for land-based NAVAIDs in favor of unfamiliar five-letter identifiers. This knowledge, acquired over generations by both ATC and the aviation community, is set to be lost unless prompt action is taken (See: [CSA VOR Discontinuance Ranking](#)).

This issue was presented to the Aeronautical Information Management Group, National Flight Data Center (NFDC) by ZOB ARTCC, Airspace Redesign Office. The NFDC Group suggested that ZOB ARTCC bring the issue before the ACF-IPG as the proper medium for discussion and resolution of the issue.

Recommendations:

At the next scheduled revision of FAA Order 7350.8, consider a process to be used when transitioning from geographically relevant three-letter land-based NAVAID identifiers to GPS-based NAVAID identifiers for use in the FAA's NEXTGEN system. ZOB recommends a three step process:

1. Reserve the current three-letter NAVAID database in the NEXTGEN system as a five-letter waypoint. ZOB proposes including the original three-letter identifiers preceded by the letters "KQ" (ex. KQSTL), essentially creating a five-letter GPS-

based waypoint with geographical significance.

2. As land-based NAVAIDs become eligible for decommissioning, evaluate their geographical relevance to the NAS. If proven valuable, proceed with the decommissioning and replace the NAVAID with the previously reserved five-letter GPS-based waypoint. As referenced in the example above, aircraft could then be cleared direct "STL Waypoint" in lieu of a fix unfamiliar to pilots and controllers alike.
3. Land-based NAVAIDs found to be geographically insignificant would proceed with decommissioning and have their "KQ" reserved identifier removed from the database. At that time a new five-letter fix, or none at all, could be installed at the previous location of the NAVAID.

It is important to note that ZOB does not see this as a long term solution, but rather a transitional phase. It is quite conceivable that these geographically relevant identifiers will be rendered obsolete by future technology such as DataLink. In order to achieve this, Order 7350.8 criteria needs to be changed in order to allow flexibility in the implementation of future concepts, especially in light of passage of the FAA Modernization and Reform Act of 2012.

Additionally, FAAO 7350.8 should be reviewed to allow for a smooth transition to the NEXTGEN system by ATC and the flying community, as well as sync with the PBN Q and T-Route structure currently coming on-line.

Comments:

This recommendation affects FAA Order 7350.8, Location Identifiers System Administration; 7110.65 Air Traffic Control

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MEETING 12-01: Ms. Connie Atlagovich, FAA/ZOB ARTCC, introduced the topic and gave a general overview of the background for the proposal. Ms. Atlagovich stated that Cleveland Center has been going through a massive redesign of their airspace and through the process, concerns from current air traffic controllers surfaced pertaining to the naming conventions that are in place within the FAA regarding to the loss of VORs and establishment of a waypoint at the same location. Currently, VORs have three letter location identifiers and waypoints have pronounceable five letter identifiers. The proposal presented supports a process by which, when a VOR, for example "CLE", is decommissioned and replaced with a waypoint, that the VOR ident be retained and prefixed with a 2-letter combination "KQ" resulting in a 5-letter waypoint ident "KQCLE". It was suggested that this practice would benefit both local ATC and the pilot community by creating a named point with geographical significance, and would result in a smoother and safer airspace redesign transition process.

Mr. Michael Ruple, FAA/ZOB ARTCC, [presented a PowerPoint briefing](#) that provided more detail to the issues raised regarding the proposed naming conventions of waypoints established over positions where previously NAVAIDs were located.

Mr. Ruple presented slides that illustrated the Cleveland ARTCC airspace prior to the airspace being reworked and a slide showing the evolution of the airspace as it moves to all-RNAV by 2015. Mr. Ruple illustrated how familiar NAVAID idents play a role in aiding both pilots' and controllers' local knowledge of location. He then presented an argument for how, without utilizing some new form of naming convention, the redesigned airspace will result in a loss of geographic situational awareness.

Mr. Kevin Allen, US Airways, expressed support for retaining geographic NAVAID IDs, but recommended keeping the existing three letter ID followed by "99"; e.g., STL99. He believes this would be preferable and provide better geographical situational awareness.

Mr. Paul Eure, FAA/AJE-31, commented that whenever there is such an overhaul of airspace, where a NAVAID has been replaced with a waypoint, there is a process to disseminate the change to both pilots and controllers. Several audience members commented on how this appeared to be more about the learning curve associated with a transition period where pilots and controllers alike are going to have to adjust to changes within the system. Mr. Eure pointed out that the number of NAVAIDs in the NAS will decrease drastically in the future and users, over time, will come to learn the new waypoints established in their place. He reminded the group that relocated controllers are trained on the new airspace to which they are assigned and that retraining on modified airspace is essentially the same process.

Ms. Valerie Watson, FAA/AJV-3B, stated that this Forum's focus was specific to charting issues and that the issue raised by Ms. Atlagovich and Mr. Ruple is one of policy. The proposal is counter to established FAA naming conventions and those conventions need to be addressed. Ms. Watson directed the proponents to several pertinent FAA Orders (7400.2 Procedures for Handling Airspace Matters, 7350.8 Location Identifiers Handbook, 8260.19 Flight Procedures and Airspace) in which the current fix/waypoint naming conventions are documented and suggested they contact the offices of responsibility for those Orders. She stressed that from a charting perspective, waypoint names are charted as published by source and that the matter is beyond the scope of this forum.

Mr. Brad Rush, FAA/AJV-3B, mentioned that an issue not raised by Ms. Atlagovich and Mr. Ruple's presentation is the lack of an ident naming convention for stand-alone DME's. This issue will also need to be addressed as the FAA moves to an RNAV-based NAS.

Mr. Rush stated that he would forward the proposed waypoint naming convention recommendation to System Operations Services (FAA/AJR) for consideration. He stressed that ICAO naming standards need to be looked at as well. Mr. Rush acknowledged that the redesign transition is a problematic issue and that this specific proposal may well have merit, but that the process of changing naming conventions starts with System Operations.

STATUS: OPEN

ACTION: Mr. Brad Rush, FAA/AJV-3B, will forward to recommendation to System Operations and will request that a representative provide a response by the next ACF.

ACTION: CLE ARTCC will contact Offices of Responsibility for FAA Orders which document current waypoint naming conventions to recommend their proposal.

MEETING 12-02:

Brad Rush, FAA/AJV-3B, reviewed the topic. The original concern submitted by Cleveland Center, addressed the naming of specific waypoints as they are established over the site of a decommissioned VOR. It was suggested that as [VORs are decommissioned, the waypoints established in their place](#) should be named in a unique fashion so that ATC could retain the geographic reference of the original NAVAID. Several naming conventions were proposed – for example, when Cleveland (CLE) VORTAC is decommissioned, a waypoint “KQCLE” or “CLE99” could be established at that location, retaining the original NAVAID location identifier in the designator. Currently established FAA and ICAO naming conventions do NOT support this and would need to be revised if this proposal were to go forward.

Kyle McKee, FAA/AJV-14, commented that there was a strong desire by controllers in keeping the name that had been previously associated with a decommissioned NAVAID. He believes that assigning the random 5-letter pronounceable waypoint names dictated by convention would not provide controllers with the geographic references they are accustomed to and would necessitate widespread training difficulties as the VOR decommissionings in the NAS progress.

Valerie and Brad both emphasized that the FAA is required to adhere to current guidance, regulations and international agreements (ICAO). To make any changes of this kind, published naming conventions would need to be revised.

Brad noted that additional concerns exist regarding the NexGen initiative for the establishment of stand-alone DMEs. At present, there is no guidance as to how they will be databased or depicted on charts. Currently, DMEs do not have a unique name and identifier, but use the name and identifier of the VOR facility they are associated with. Guidance needs to be drafted to address the stand-alone DME and it is likely that when the VOR portion of a VOR/DME or VORTAC is decommissioned, the DME will take on the name & identifier of that facility.

Tom Schneider, FAA/AFS-420, commented that per FAA Orders 8260.19 and 7400.2, the establishment of a waypoint over an existing NAVAID is not permitted, so the proposal that waypoints be established over currently existing (but soon to be decommissioned) NAVAIDs cannot be done in adherence with today’s standards.

Steve Serur, ALPA, spoke to the problem of both ATC and pilots having to relearn the airspace in an area where decommissionings occur. Steve emphasized that many senior controllers know and have a 3D image of their assigned airspace in their minds that is so well-ingrained that they are able to troubleshoot airspace-related matters very quickly. He believes that if the names of significant points were changed, that experience would be lost and would create a loss of controller efficiency. Steve inquired as to whether there was an option to revise the current naming conventions/rules.

Brad responded that ATC has responsibility for the rule and that from a charting perspective, the names that are published by the FAA sanctioned sources are those that will appear on the charts and in the databases.

Mark Cato, ALPA, voiced that in his opinion, pilots remember things as and when they learned them and are resistant to change. He gave the example that on one of his regular approaches, ATC would often refer to a visual reference known as the Hecht’s store. Even though the

Hecht's was replaced by Macy's years ago, pilots who know the area still refer to same visual point as the Hecht's store.

John Gale, NBAA, commented that throughout the world, there are thousands of waypoints being added and that business aviation pilots simply learn as they go. In his view, both pilots and controllers simply have to adapt and learn accordingly.

Valerie stated that the renaming of waypoints based on what used to be on the ground at that location makes little sense beyond the temporary convenience of controllers and pilots accustomed to operations in a specific area. She asked if, over time, the new naming convention would not cause confusion to pilots and controllers NOT familiar with the area. A pilot new to the area would see a waypoint with an odd, non-conventional name and wonder "What is that? Isn't it simply a waypoint?". He would have no idea that he should refer to "CLE99" as "Cleveland", and would neither realize nor care that Cleveland VORTAC was once located at that position.

Bill Hammett, Contractor, FAA/AFS-420, stated that FAA Order 7400.2 is the responsibility of the Airspace, Regulations, and ATC Procedures Group, AJV-11. He suggested that the specifics of this RD should be consolidated and sent to AJV-11 for a position. Bill added that it is imperative that AJV-11 participate in the ACF. There are at least two open issues relating to controlled airspace on the AFC-IPG agenda and several open issues and briefing items on the Charting Group agenda where an airspace specialist's participation would be beneficial. Bill recommended that since Mission Support Services is a co-sponsor of the ACF, and AJV-3 is a Co-Chair of the ACF that the Chair have AJV-3 approach AJV-1 and request AJV-11 participation. If this fails, then support from the VP, AJV-0, should be requested.

Tom commented that upon receiving direction from ATC, his office can work to revise the policy regarding the establishment of a waypoint over an existing NAVAID, but until that occurs, things will have to remain as they are.

Kyle added that Cleveland Center would offer their facility as a test facility for investigation into the various options to be assessed.

STAUS: OPEN

ACTION: Brad Rush, FAA/AJV-3B, will collect the comments from the ACF and include them in a letter from AJV-3 to AJV-1 regarding the issues raised during discussion of this item. No action can be taken as things stand within the charting group of the ACF until AJV-1 responds and there revisions in policy to support both the establishment of a waypoint over an existing NAVAID and any new waypoint naming conventions. The letter will also request that a representative of AVJ-11 attend the next ACF, both the IPG and CG portions, to address the concerns related to their line of business. Brad will report back at next ACF on an AJV-1 response.

MEETING 13-01: Valerie Watson, AJV-3B, summarized the subject matter and history of the topic. Valerie provided an update on behalf of Brad Rush, AJV-3B, stating that a letter was sent to AJV-1, Dennis Roberts, requesting a position regarding the establishment of new naming conventions for waypoints which overlie a position formerly occupied by a NAVAID. Mr. Roberts has designated Gary Norek, AJV-11, to provide a response. No response has been received to date.

STATUS: OPEN

ACTION: Brad Rush, AJV-3B, to provide an update on response from AJV-1 at next ACF.

MEETING 13-02:

Valerie Watson, AJV-3, briefed the issue. Brad Rush, AJV-3, had reported at the last ACF that a letter had been sent to AJV-1 asking whether they could support a new naming convention for waypoints/fixes located in positions formerly occupied by decommissioned NAVAIDs. While a formal written response has yet to be received, AJV-1 identified Gary Norek, Manager, Airspace Policy and ATC Procedures Group, AJV-11, as a point of contact. Gary Norek in turn deferred the decision to AJV-2.

Chris Criswell, AJV-22, reported that AJV-2 does not support the creation of a unique naming convention for waypoints/fixes based on their co-location with a decommissioned NAVAID. AJV-2 does support the current practice of retiring a NAVAID name and location identifier when it is decommissioned. If a waypoint or fix is required at this location, a 5-letter pronounceable name is created for that waypoint/fix. This is consistent with ICAO naming conventions.

The discussion next addressed the subject of stand-alone DME facilities remaining after the VOR portion of a VOR/DME is decommissioned. It was agreed that in these cases, the stand-alone DME should retain the name and 3-character location identifier of the VOR/DME.

Brad stated that he would contact the original proponents of this proposal at Cleveland Center to inform them of the conclusion reached by the ACF.

STATUS: CLOSED