AERONAUTICAL CHARTING FORUM
Instrument Procedures Group
April 29, 2014

HISTORY RECORD

FAA Control # 14-01-316

Subject: RNAV Fixes on Victor Airways Used for RNAV SIAPs.

Background/Discussion: The new KDLN RNAV SIAP has a feeder WP (JOXIT WP) that lies on V-343, but is not part of V-343 because it is not a radial/radial or radial/DME fix. This creates pilot human-factors and workload issues because the FMS airway nav-database cannot contain an airway fix that is not a part of the airway even though such fix (WP) lies on the airway. This increases workload and the possibility of a pilot creating the incorrect FMS flight plan to ingress onto an RNAV SIAP.

Recommendations: When a new Victor Airway fix is created to provide either a feeder or initial approach fix for an RNAV SIAP, such a fix should be a conventional airway fix (radial/radial or radial/DME), which will permit the fix to be part of the RNAV Victor airway database. This will prevent route discontinuities or possible pilot error in selecting the wrong feeder fix or IAF from the affected Victor airway onto the RNAV SIAP.

Comments: This requires that specific guidance be written in FAA Order 8260.19F to direct AeroNav Products to make on-airway RNAV SIAP feeder fixes or IAFs either radial/radial or radial/DME fixes instead of RNAV waypoints.

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Initial Discussion – MEETING 14-01: New issue presented by NBAA. John Kernaghan, NBAA, discussed discontinuity of fixes, specifically the addition of a fix that appears to be (or perhaps should be) part of a conventional airway provided for ingress to an RNAV approach. Tom Schneider, AFS-420, (View) demonstrated that Form 8260-2 does show it as part of the en route structure, though not part of that specific airway (not route make-up). Brad Rush, AJV-3, stated that the fix is not part of the legal description of the airway (discussion followed on airway fix requirements). Tom asked if something needs to be stipulated in Order JO 7400.2 to clarify which fixes are to be officially part of an airway. Brad thought maybe a clarification from the Airspace Regulations and ATC Procedures Group, AJV-11, on what constitutes a fix on an airway was needed. Tom said the problem is that the fix is on airway, but is not part of the legal description of the airway. The data base chooses from airway make-up fixes.

Discussion followed on airways/fixes/make-up/coding/Federal Register. Gary Fiske, AJV-8, has agreed to take an IOU to present this issue to AJV-1. Tom inquired if guidance needs to be in Order JO 7400.2. John Moore, Jeppesen, said it appears this issue is being expanded beyond the bounds of the initial concern. Tom said we need guidance/clarity on the issue, and without representation from the Airspace Regulations and ATC Procedures Group in the room, we do not want to make changes to Order 8260.19.

Status: AJV-8 will take IOU to present issue to AJV-1 to gain input from them on how this should proceed. Item Open (AJV-8)

MEETING 14-02: Paul Gallant, AJV-11, briefed they are constrained by 14 CFR Part 71 legal description on VOR airways criteria that does not allow placement of an RNAV waypoint (WP) on the legal description of the airway. This would require a major rule change which is a lengthy process. There are many fixes on airways, but criteria define the legal description in the airway docket only as the endpoints (NAVAIDS), and where there is a change of airway direction. The 8260-16 document only cites NAVIADs & fixes used both to describe the line work and to document en route altitudes, changeover points and equipment requirements. Gray Fiske, AJV-8, asked if it would suffice to just add RNAV WP on the Form 8260-2, rather than as part of the legal description. Valerie Watson, AJV-344, said Form 8260-2 documentation in “fix use” would show the RNAV WP on the airway. Rich Boll, NBAA, said the problem is coding the fix on the airway for the data base providers and cited as example the RNLDI DEPARTURE (SID from Washington Dulles airport) to OTTTO WP which is directly over Linden VOR and doesn’t join J134. A lengthy group discussion ensued with the acknowledgement that there are problems/issues with placing a waypoint on a conventional airway. If a convention (ground-based) fix were established and USED as a waypoint on the RNAV procedure, it could be documented as part of the airway on Form 8260-2, which will trigger NFDD action. Admittedly, clarity of fix intended use in the documentation will help; current AeroNav policy is to, when possible, use existing fixes in development and adjust new procedures accordingly. Brad Rush, AJV-344, stated that current fix documentation is presently very good (i.e., box is checked on Form 8260-2 for fix type and remarks section is annotated for fix use). The issue remains whether a WP can be placed on an en route victor airway and document strictly as WP on the airway via 8260-2? There needs to be defined guidance to place WP on airway. Tom Schneider, AFS-420, stated FAA Order 8260.19 guidance says fix must have use to match procedure. Any fix can be used as a waypoint. We expect that when it is documented in the “fix use” block on the Form 8260-2 (i.e., on the airway), it will be NFDD that way, ATC will use it that way, and all users will place it where it belongs. Guidance is already in place, the fixes used as WPs are on the Form 8260-2 and no further action is required. Brad will work on expanded guidance for when a fix is placed on an ATS route. When possible it should be supportive of the route (i.e., hierarchy concept from years past).

Status: AJV-344 will work on and provide recommended language on the issue for consideration. **Item Open:** AJV-344

MEETING 15-01: Tom Schneider, AFS-420, spoke with Aeronautical Information Services (AIS). They have an IOU on the issue and Brad Rush, AJV-54, advised they are still working on the issue. Item is status quo, nothing to report, and still open.

Status: AJV-54 working issue. **Item Open: AJV-54**

MEETING 15-02: Tom Schneider, AFS-420, briefed he and Brad Rush, AJV-54, agreed on changes coming out in FAA Order 8260.19H (View), showing existing, changes and updated verbiage. The group discussed fix/waypoint placement on an airway and legal fix make-up requirements. Rich Boll, NBAA, said this issue resulted from an RNAV (GPS) approach with an RNAV fix that appeared to be on airway route (feeder) but was not (i.e., not in the data base for the airway), so there is no way to link the airway with the approach. He added that this problem is also occurring with decommissioning of VORs; for example, OTT (Nottingham) where some SIDs do not attach to the airways. Tom said this policy change will help, and Paul Gallant, AJV-11, agreed with Tom, adding this is a legal definition problem. Tom feels this is the best solution, and when out for coordination, comments can be made.

Status: Track status of FAA Order 8260.19H change as it works its way through the coordination process. **Item Open: AFS-420**.

MEETING 16-01: Tom Schneider (AFS-420) briefed that the proposed language is in draft Order 8260.19H. Nothing has changed from last ACF and the Order is in coordination, with anticipated publication in November, 2016. (View)

Status: Tom will track status of FAA Order 8260.19H through the coordination process. **Item Open: AFS-420**.

MEETING 16-02: Tom Schneider (AFS-420) briefed (VIEW) language is in the draft Order 8260.19H and will be published in January 2017.

Status: Tom will track status of FAA Order 8260.19H through the coordination process. **Item Open: AFS-420**.