

AERONAUTICAL CHARTING MEETING
Instrument Procedures Group
Meeting 22-02 – October 24-25, 2022

RECOMMENDATION DOCUMENT

FAA Control # 22-02-371

Subject: Improvement of Periodic Review Process

Background/Discussion:

Current FAA policy in FAA Order 8260.19, Flight Procedures and Airspace (para. 2-8-1) directs immediate compliance with criteria changes at the direction of Flight Standards (FS). However, FS appears to have no guidance identifying which criteria changes are to be revised immediately nor do they identify which criteria changes need to be implemented immediately and documented accordingly during the periodic review process. As a result, criteria changes deemed important by industry have failed to be implemented for extended periods of time.

In addition, FAA policy does not state explicitly when non-safety items or 8260-series orders criteria changes identified in the periodic review need to trigger an amendment and when that amendment needs to be scheduled for that publication. Policy guidance does not specify a process to address these same items that are identify by industry an brought to the agency's attention.

Current FAA policy in FAA Order 8260.19, paragraph 2-8-1 states:

2-8-1. General. Conduct periodic reviews of all IFPs to ensure requirements for obstacle clearance, navigational guidance, safety, and practicality are met. Use reviews to determine if amendments to IFPs are needed to comply with changes to design criteria and policy. These changes include, but are not limited to, such items as obstacle assessment areas (to ensure proper OE actions are being administered), procedure naming, requirements to add/remove/modify chart notes, etc. Consideration must also be given to the impact of OEs, F&E, and AIP projects pertinent to the procedure review process. When directed by Flight Standards, immediately comply with changes to criteria.

Prior to FAA Order 8260.19E, FAA policy was to immediately comply with changes to criteria that related to safety of flight. However, as we have found even this language was not sufficient to result in need amendments to instrument flight procedures.

FAA Policy requires all fielded IFR procedures to undergo a periodic review at intervals set based on procedure type, in addition to required maintenance due to environmental changes (VORMON, airport/airspace changes, etc) or flight inspection results.

2-8-2. Frequency of Periodic Reviews.

a. Review IFPs at least once every two or four years as applicable. Refer to Table 2-8-1 to determine the applicable frequency.

Table 2-8-1. Frequency of Periodic Review

Procedure Type	Frequency
IAP – final (including visual area), circling, and missed approach segments	2 years
IAP – All other segment/areas not subject to 2 year review	4 years
ODP	2 years
DVA	2 years
SID	4 years
STAR	4 years
Airways, airways segments, routes	4 years

b. Periodic reviews must be completed within the specified frequency from the most recent of the following:

This periodic review process contains a set of requirements for review and documentation of necessary amendments; however, it does not state when these should be incorporated into a procedure or when they should trigger a procedure amendment. Quite often, procedures much older than their review interval are reviewed and allowed to remain unchanged despite changes to underlying criteria. In recent years, criteria such as low, close-in obstacles on DPs and VCOA OEA adjustments (OEA from 3 to 5 NM for VCOAs over 10000 ft) have changed which ought to mandate procedural updates – but in at least some cases, didn't.

Garmin recently conducted an IFP inventory summary and found some IFPs which haven't been amended in over 40 years – many of which do not incorporate current criteria or are based on very old, and likely outdated obstacle evaluations – this should not be permissible. Some of the most notable findings:

- Oldest (known) IAP – 7/22/93 (29 years)
- Oldest (known) STAR – two-way tie – 9/21/89 (33 years)
- Oldest (known) SID – 12/25/80 (42 years)
- Oldest (known) TO MINs – 7/18/74 (48 years)

Records of periodic reviews on a per-procedure basis are generally not available to the public (or to industry). Still, in our estimation, 29 years between amendments is a stretch, and 48 is concerning.

Various FAA personnel have suggested that there is not an internally accepted definition for “safety of flight” as it pertains to IFP amendments. The FAA does not identify criteria changes that need to be implemented immediately at the next periodic review in the 8260-series orders. In addition, there does not seem to be an internal (or external) way to communicate, 1) when a procedure's last periodic review was, and 2) whether the procedure violated any current criteria at that time and was properly documented on the procedure in accordance with paragraph 2-8-4, so it is difficult to schedule some procedures for amendment based solely upon criteria changes. The results are self-evident – procedures unchanged for 20-40 years because no single criteria triggered the change and no “safety issues” were found.

Recommendations:

Garmin recommends a thorough review of the oldest procedures currently in the NAS and a quorum with industry and HF to determine what types of recent criteria changes should be considered "safety of flight" that would drive expedited amendments.

Going forward, FAA should establish procedures and documentation that identify:

1. Criteria amendments/changes require immediate implementation at a procedure's next periodic review.
2. For those criteria changes that are not considered immediately necessary for "safety of flight", establish an interval after which an amendment will be required and processed for that procedure during its next periodic review. This interval may be generalized in terms of items on a procedure, e.g., "minimums," "low, close-in obstacles," "procedure notes," "PBN and Equipment Requirements Box," etc. When a trigger for a procedure amendment is reached, all criteria changes identified during past periodic reviews must be implemented at that amendment.

Comments:

This recommendation affects:

- 8260.19 for IAPs and STARs
- 8260.46 for DPs
- 8260.60 for Special Instrument Procedures
- 8260.61 for Charted Visual Flight Procedures

Submitted by: Steven Madigan, Richard Boll

Organization: Garmin International, NBAA

Phone: 913-440-6025

E-mail: steven.madigan@garmin.com

Date: 9/15/22

Please send completed form and any attachments to:

9-AMC-AVS-ACM-Info@faa.gov