

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 (AFS). However, AFS 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 FAAO 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 FAAO 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') 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

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Initial Meeting 22-02: Steve Madigan, Garmin, briefed the issue from the RD ([slide](#)). This issue was submitted jointly with NBAA and addresses instrument procedures that have not been amended in many years and are therefore unlikely to comply entirely with current criteria. Steve discussed the periodic review frequency requirements, noting that there are procedures in the NAS that have not been amended in many years. Bill Tuccio, Garmin, added there does not appear to be guidance for identifying criteria that must be noted for application at the next periodic review. TJ Nichols, FAA Flight Procedures and Airspace Group (FPAG), said there are ongoing internal discussions on the matter and agreed the perception of timely amendments is important. TJ said since this is already being worked within the Agency, he does not see a need for an outstanding ACM issue. Jeff Rawdon, FPAG, said for now this will remain open pending

ARRG discussion. Dan Wacker, FPAG, said the Departure Working Group (DWG) and other groups are aware of the older procedures and are working on criteria updates that would address these older procedures. They are working with Aeronautical Information Services and considering the possibility of requirements for all procedures at an airport to be amended concurrently, rather than amending single procedures. Kevin Keszler, FPAG, pointed out that since TARGETS is programmed with current criteria, the issue is more related to available resources. Pat Mulqueen, FAA Instrument Flight Procedures Group (AJV-400), confirmed Kevin's point, and added that automation does not exist to review procedures for compliance with old criteria. Pat agreed with TJ and confirmed AJV is currently reviewing similar points to those raised by this RD. John Moore, Boeing/Jeppesen, agreed this is an FAA internal issue but believes it should remain open since it was introduced by industry and the user community. John also recommended the RD sponsors should remain involved as the issue is worked. Steve discussed issues beyond application of new criteria, for example consideration of tree growth as applied on departure procedures since there are some procedures noting trees as controlling obstacles that have not been amended in many years. Dan commented the DWG is looking at tree growth, but it is not currently a high priority item. Pat said during the review process these are reviewed with current survey data and are amended as necessary. Karl von Valtier, NetJets, commented on the extensive list in Order 8260.19 of issues requiring amendments, including changes to minima, and pointed out that tree growth could necessitate this. Pat pointed out that since minimum descent altitudes are published in 20-foot increments an amendment may not be required even with higher trees. If there is a new controlling obstacle there will be an amendment and flight inspection. Vince Massimini, NavTec, discussed that smaller airports are inspected and if trees growth exceeds limitations action will be required by federal, state, or local agencies. Steve commented there does not appear to be any method of coordination between the FAA and the public when a revision is considered or in process and what the results are, and questioned the possibility of a coordination process or system. Pat said there are currently internal processes, and he would consider the suggestion. When a safety of flight issue is identified a NOTAM is issued, and an amendment project is created. Vince added that while it is not secretive, there is no system or process currently in place to identify these reviews and possible amendments for the public. TJ said this information will be taken back to the ARRG for discussion, adding tree height was not in the RD but is a motivator for the issue. TJ added there is interest in transparency for the periodic review process. John Collins, ForeFlight/Boeing, pointed out sometimes charts are updated without criteria changes being incorporated and inquired if a checklist might help. Pat stated for a full amendment the procedure will be updated to fully reflect current criteria, where an abbreviated amendment may not fully reflect all current criteria. An abbreviated amendment is designed to fix a specific issue and does not necessitate a complete procedure redesign. Pat pointed out the Instrument Flight Procedures (IFP) Gateway website shows procedure coordination for flight procedures undergoing an amendment. Steve inquired about FAA Form 8260-3/4/5 procedure form coordination checkboxes and asked how these are utilized for coordination. Pat said the boxes had been there for a long time and do not really serve the purpose for coordination with the public and reiterated that the IFP Gateway is the best source for procedure coordination information. Additionally, Pat said there are currently considerations to remove the coordination boxes since interested stakeholders can find what they need on the IFP Gateway and that documentation packages are no longer distributed as they were when the checkboxes were relevant. Steve raised a concern regarding older obstacle data on trees growth applied to departure procedures and would like that considered in the discussions. Bennie Hutto, NATCA, feels there is a lack of coordination on procedure amendments and does not feel the IFP Gateway is appropriate for coordinating changes. Pat said he would look at Bennie's comments. Jeff pointed out the coordination issues discussed are beyond the scope of this RD. Steve agreed to consider submitting a new RD to address the coordination issues.

Actions: This item will be reviewed by the ACM Recommendation Review Group to determine any action, and that outcome will be provided at ACM 23-01.

Status: Item open

Meeting 23-01: Jeff Rawdon, FAA Flight Procedures and Airspace Group (FPAG), briefed the summary, actions, and status from the (slide). Jeff said the ACM Recommendation Review Group (ARRG) agrees this is an issue but reported that it is already being addressed by an IFP Streamlining Project. Lonnie Everhart, FAA Instrument Flight Procedures Group (AJV-A4), was present to discuss this project.

Lonnie briefed that MITRE is assisting the Air Traffic Organization (ATO), with many lines of business involved in the effort. There is an overall steering group for the IFP Streamlining Project (mainly directors in Mission Support Services), and that periodic review (PR) changes are being addressed by a working group within the project. The PR working group effort is looking at extending the PR timeline from 2 to 5 years which would align with ICAO standards and provide an improved opportunity for conducting full amendments to ensure full criteria compliance.

Rich Boll, NBAA, asked if there has been a timeline established to revise the PR process. Lonnie said no, as the discussion is in early stages and that interconnected issues like order revisions and timeline changes still need to be addressed. The PR working group will present multiple recommendations to the steering group in July.

Steven Madigan, Garmin, voiced a concern about a 5-year schedule and transparency involved with PR planning and projects. Steven asked if that meant the goal would be a full amendment every 5 years, and Lonnie confirmed that was correct. Steven discussed concerns that the current PR process did not result in procedures being updated to reflect current criteria, and also that there was no way for the public to tell when a procedure was last reviewed. Rich added there are procedures from the 1980s that are not fully compliant with current criteria and asked how users would know when procedures were last reviewed or are scheduled for review and amendment. Rich acknowledged the resource and workload issues but was curious if the change to a 5-year interval will resolve the procedures with outdated criteria. Lonnie discussed the workload issue and complexities and challenges. Reviews on approximate 20,000 procedures over 5 years is approximate 4,000 a year, and many become larger projects. Requests for new procedures and amendments also complicates planning and scheduling. Lonnie said the PR schedule used to be posted on the IFP Gateway and will check into the possibility of adding the last PR date added back to the Gateway.

Michael Stromberg, Independent Pilots Association (IPA)/UPS, discussed that the intent of the PR was to bring procedures into compliance with current criteria every 2 years and wondered what would change to make sure that could occur on a 5-year schedule. Lonnie said when issues are identified an amendment would be scheduled. TJ Nichols, FPAG, said the PR working group plan aligns with ICAO Doc 9906, Quality Assurance Manual for Flight Procedure Design, requirements. The present practices are focused more on identification of issues rather than initiating amendments. Another part of the process could be streamlining the inventory to eliminate low-value procedures, thereby reducing the number of procedures to be maintained. Bennie Hutto, NATCA, said many facilities

defer desired changes until the periodic review and wondered if changing the review interval to 5 years would delay desired changes to procedures. Lonnie said no, and cited Dallas-Fort Worth projects as an example. The plan in that case would be to amend all associated procedures at the same time. The PR would occur every 5 years, but procedure development can remain independent of that cycle when necessary, especially at major core airports. The core airports need work more often, so they necessitate a different scheduling concept.

Rich asked if there was any industry participation in the effort, and Lonnie said no. Lonnie will discuss possible industry participation in the PR working group with the core group and TJ. Rich and Steven pointed out that when issues are identified after a procedure is amended, it takes time to amend the procedure again, and that industry participation could help alleviate needed rework. TJ discussed this is a system level approach and that industry is included on safety reviews and would have an opportunity to identify hazards. Rich said policy revision work is completed prior to the safety review process and they would like to be involved with earlier participation in the process. TJ will check on the possibility of industry participation in the PR revision process.

Actions:

- Lonnie Everhart will check into the possibility of adding the most recent periodic review dates for each procedure to the IFP Gateway.
- TJ Nichols will discuss the possibility of industry participation with the periodic review working group.

Status: Item open

Meetings 23-02: Jeff Rawdon, FAA Flight Procedures and Airspace Group (FPAG), briefed from the [slide](#). Potential revisions to the periodic review process are being addressed by Air Traffic Organization's (ATO's) National IFP Schedule Work Group. Since this is an internal FAA work group, direct public participation in the work group is not possible, though the work group could potentially reach out beyond the Agency on an ad hoc basis. There will be a safety risk management panel (SRMP) on this effort soon, and many industry and public participants will be invited.

Jeff suggested closure of the item at this time since future work will be conducted outside of the ACM, but Rich Boll, NBAA, as one of the RD proponents would prefer if the ACM could get regular updates. After discussion, Jeff and Rich agreed the RD could be closed, but a briefing item on this subject would be added to the agenda and briefed at subsequent ACM meetings. TJ Nichols, FPAG, concurred with moving this to a briefing item and agreed to deliver those briefings. Steven Madigan, Garmin, agreed with closure of the RD as the other proponent, and requested to be part of future SRMPs.

Actions: TJ Nichols, FPAG, will provide briefings at subsequent ACM meetings regarding the work by ATO's National IFP Schedule Work Group on this topic.

Status: Item closed