Standard Operating Procedure:
Aircraft Certification Service Sequencing Procedure

Comments on the Draft Standard Operating Procedure
published online for public comment

Submitted to the FAA via email at renton.bean@faa.gov
and via first class mail

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Renton Bean
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Dear Mr. Bean:

Please accept these comments in response to the Standard Operating Procedure: Aircraft Certification Service Sequencing Procedure, which was published for public comment on the FAA's website.

We hope that these comments are helpful in supporting the FAA's efforts to develop reasonable sequencing guidance.

Contents

What is MARPA?

The Modification and Replacement Parts Association was founded to support PMA manufacturers and their customers. Aircraft parts are a vital sector of the aviation industry, and MARPA acts to represent the interests of the manufacturers of this vital resource before the FAA and other government agencies.

MARPA is a Washington, D.C.-based, non-profit association that supports its members' business efforts by promoting excellence in production standards for PMA parts. The Association represents its members before aviation policy makers, giving them a voice in Washington D.C. to prevent unnecessary or unfair regulatory burden while at the same time working with aviation authorities to help improve the aviation industry's already-impressive safety record.

MARPA represents a diverse group of manufacturing interests – from the smallest companies to the largest - all dedicated to excellence in producing aircraft parts.

MARPA members are committed to supporting airlines with safe aircraft components. MARPA members manufacture and sell aircraft components that provide equal or better levels of reliability when compared to their original equipment manufacturer competitors.

MARPA supports efforts to produce guidance that increase safety at reasonable costs. MARPA applauds the FAA's efforts to establish fair and reasonable sequencing procedures.

Comments

This Guidance is Very Important

This SOP would have a tremendous affect on the rights of private parties. The sequencing decisions about which projects will get FAA resources and which ones will be delayed, will have a tremendous impact on business and profitability, because the FAA approval process is often a bottleneck on innovation. A safety improvement project that is delayed for weeks or months could inhibit safety not only because of the delay, but also because for many companies - particularly smaller ones - delay can mean the difference between whether the company is successful or whether the company may run out of financing before it can bring its safety improvement to the marketplace.

The FAA is Required to Adhere to Standard U.S. Practices

The Constitution's Due Process Clause requires the government to provide fair process to similarly situated persons. [1]

The FAA has an obligation to make its services available to companies without prejudice. If it intends to make distinctions concerning the parties to whom services will be made available, then it must do so with an even-handed and justifiable process.

Existing U.S. government policies make it clear that government policy does not favor the creation of processes that disadvantage small businesses to the benefit of larger competitors.

When agencies have been faced with statutory obligations to provide services and limited resources that preclude them from offering all of the needed services on an immediate basis, the Courts in the past have approved a "first-in first-out" approach.[2] Divergence from such an approach is permitted in exceptional circumstances.

Here, the FAA is attempting to establish a structure that will be different from first-in first-out. The burden would rest with the FAA to demonstrate that such an alternative method is fair, rather than merely being arbitrary and capricious.

The Guidance is Unclear about the Resource Commitment to Category One Projects

The guidance divides projects into four categories basedon the expected time commitment.

The first category of projects are those than can be completed in 40 hours or less. This estimate includes all FAA time spent on the project, including ACO staff time,

[1] U.S. Const. amend. V
[2] Open America v. Watergate Special Prosecution Force, 547 F.2d 605, 616 (D.C. Cir. 1976)

MIDO staff time and Directorate Standards Staff time. Projects that are expected to be completed in 40 hours or less remain in the ACO in which they were submitted and are worked without going through the sequencing process.

All other projects receive a safety index (SI) and are sequenced based upon an adjusted SI that is based on the original SI, further amended by additional points added each week (so that projects will eventually rise to the top of the list, even if their original SI was quite low).

One thing that remains unclear under this protocol is how category one projects (non-sequenced projects) are ranked against all other projects. For example, if an ACO is working on an existing major project (600+ hours) and then gets four new 30 hour projects (below the sequencing threshold), how does the ACO allocate its staff – will any of the staff time be allocated to the new projects, and if so then how much staff time will be allocated to such projects?

Furthermore, if there are a significant number of category one projects (which do not get sequenced) and a small number of projects from other categories, then

This ambiguity is a concern for PMA companies, because the Association has been told of anecdotal circumstances involving PMA applicants with category one (less than 40 hour) projects. Several such applicants report having been told that there are no resources to work their projects.

This is a special concern for category one PMA applicants. FAA policies restrict applicants from bringing their projects to any office other than their local ACO. If a local office is unable to commit resources to such projects, then there is no other recourse for the PMA applicant, and the only way to get their project to another office is to structure it so that it takes additional review tie in order to fall into category two (and become eligible for sequencing). This is inefficient, as it unnecessarily increases the burden on the FAA.

It would be most efficient to encourage companies to structure their applications to fall into category one, in order to promote the most effective use of FAA engineering review resources. The best way to do this is to provide the category one applicants with some assurance that there will be resources committed to their projects. This assurance should be included in the procedural requirement found in the sequencing guidance.

The Protocol For Ranking Sequenced Projects is Unnecessarily Subjective

For sequenced projects, the safety index provides the project's initial ranking for purposes of determining which sequenced projects will be worked first. The safety index for certification and approval projects appears to be based on the following equation:

Safety Index = Safety Impact x Passenger Impact x Affected Fleet

While this appears at first blush to be to be a quantitative determination, the value assignments associated with this equation appear to leave a great deal of room for subjectivity on the part of the value-assigner.

One example of this subjectivity can be found in the assignment of safety impact values for certification projects. This table illustrates the proposed assignment of value:

Safety Impact Values

- *8: Prevent/mitigate accident or near-term safety impact*
- *6: Program of defined strategic importance (programs defined by Congress or the FAA as high priority)*
- *4: Longer-term safety impact*
- *2: Negligible safety impact*

There are many problems with these value assignment. First, there is no definition of the terms "near-term," and "longer-term." This is an important distinction because a near-term safety impact will have a initial safety index of double the initial safety index of a longer-term safety impact. Without a clear distinction, two otherwise identical projects could be given radically different initial safety indices based on the differing perceptions of the reviewing agents.

The FAA currently has neither a statutory basis nor a regulatory basis for drawing these distinctions and there is no guidance on how to objectively distinguish these two terms. At present, this distinction is left entirely to the discretion of an individual who assigns the values to projects, raising a dangerous likelihood that the terms will be understood differently from employee to employee and therefore there will be a lack of uniformity among value assignments.

The manner in which the FAA may define a project as high priority also needs to be carefully defined. At present, a note indicates that "Congressionally-mandated programs, Administration imperatives and other projects that meet this level will be identified by AIR-1.

If AIR-1 delegates this power to the individual offices, so that an individual office can define a project as high priority then an individual office can essentially use that designation to provide an unfair advantage to projects that the individual office deems to be worthy.

On the other hand, if the FAA's Headquarters will centralize the decisions concerning strategic priorities, then it politicizes the safety process, as larger companies with lobbying resources will lobby AIR-1 (and their Congressional representatives) to have their projects designated as priorities (e.g. because of the project's projected potential to produce jobs). Such a designation would permit the designated projects to take priority over long-term safety improvements, even when the project in question provided a negligible safety impact. For example, an air carrier might lobby to have its fleet interior STC deemed "strategically important" - this would permit it to be prioritized over projects that might have a greater safety affect but that came from companies without the political resources to lobby for designation as "strategically important."

Another example is that a change of negligible safety importance to an avionics system (but that changes weight and balance of the aircraft so that it requires an STC) will have three times the initial safety impact of a comparable change to another system if the former change can be tied to NextGen (an Administration priority). Thus nearly identical projects will be distinguished based on the lobbying that has gone behind the projects.

The program has been set up so that certification projects for in-production (5 points) large transport category aircraft (7 points) that can successfully lobby for categorization as a priority project (6 points) will always take priority over other earlier-filed projects (even projects that compete with this project) because such projects will enjoy an initial safety index of 210, which means that they will be worked immediately. This permits companies to use strategic designation by Congress or the Administration as a means to automatically jump to the front of the line for resources.

It is inherently unfair for the U.S. government to create a situation where taxpayer-financed resources may be allocated based on lobbying activities, when lobbing has been deemed by the IRS to be NOT an ordinary and necessary business expense.[3]

The ambiguities and politicization of this process permit an entirely subjective assessment of value points based on the individual assessor's determination, combined

[3] Business Expenses, IRS Publ. 535 p.45 (March 24, 2011) (explaining that lobbying expenses are not deductible as ordinary and necessary business expenses).

with the applicant's lobbying power. This sort of subjective assessment of value points is inappropriate and will lead to arbitrary and capricious behavior.

For Sequenced Projects, There is a Potential Unfair Advantage for Established Companies Against New Market Entrants

There are elements of the safety index calculation that appear to favor existing companies over newer companies, and that also seem to favor companies with existing product lines over new market entrants. There is no statutory basis nor regulatory basis to permit such disparate treatment.

One example of this sort of disparate treatment can be found in the Affected Fleet values portion of the safety index calculation. In Appendix One, the FAA has assigned safety index values for certification and validation projects. One of the variables in this equation is the "Effected fleet index" [sic - should be "affected"]. The suggested values provided in that calculation assign a value of "3" where the affected fleet consisted of 5 or more aircraft. They assign a value of "1" where the affected fleet consisted of fewer than 5 aircraft. But regardless of the size of the affected fleet, if the project will be incorporated into a production line then it is assigned a value of "5." This may permit very different SI values to be assigned to two similar projects that are only different because of the type of production approvals currently held by the applicants.

Affected Fleet Values

- *5:incorporation into product line*
- *3:five or more*
- *1: less than five*

First of all, the term "incorporation into product line" is vague. But it appears to refer to situations where there is an existing product being manufactured and the manufacture wishes to introduce a change into the product line. For example, where an aircraft manufacturer wishes to alter the aircraft through introduction of new technology. Whether this supposition about the meaning of the phrase is correct, or some other meaning is intended, the phrase should be more specifically defined in the guidance.

While the idea of committing FAA resources to projects that will affect a larger fleet makes sense, from the perspective of having a larger effect with scant resources, the idea of committing FAA resources to projects that will be incorporated into a production line does not make sense from a policy point-of-view, and it affords an unfair advantage to certain competitors relative to other competitors.

For example, let's say that the market has recognized an improved way to do something on an aircraft (for example, by virtue of a recently expired patent that has now come into the public domain). Both the airframe manufacturer and an independent competitor decide to design an aircraft part that implements the new technology. If both

parties seek the same STC using the same underlying data, then the aircraft manufacturer will start with a safety index 1.66x higher than the independent company, by virtue of the fact that the aircraft manufacturer can claim that they are implementing the change in the product line (and selling to the aftermarket), while the competitor is merely selling to the aftermarket. This places the independent competitor at an unfair disadvantage (having to wait longer for resources) that is not warranted by any safety rationale.

The Company Contribution Index Is Also Unfairly Biased

In addition, there are also unfair biases associated with the Company Contribution Index (CCI). Many of these biases are based more on the resources of a company, and will draw unfair biases that would undermine the efforts of small business.

These are not worth detailing in these comments because the SOP does not use the CCI as a basis for any decision that this made under the SOP.

If the SOP is changed to use the CCI as a decision basis, then the SOP should be reopened for comment to address the inherently unfair elements of the CCI calculation.

For Sequenced Projects, The FAA is Wasting Resources Making Unnecessary Calculations

The guidance insists that at least four metrics be calculated for each project:[4]

1) Category
2) Composite Safety Index (CSI)
3) Date Received
4) Company Contribution Index (CCI)

However, only one of these four metrics (CSI) is used to rank projects for purposes of deciding which project will get worked.[5] This means either (1) the FAA is wasting its time calculating unnecessary and unused metrics or (2) the FAA will be using these other metrics in an undisclosed fashion to make decisions.

In the former case, unused metrics should be dropped in order to streamline the process. If they are not dropped then there is a dangerous possibility that some offices will use them to make certification/approval processing decisions based on metrics that are not intended to be used for those decisions.

[4] DRAFT SOP: Aircraft Certification Service Sequencing Program ¶ 6(b)(5).
[5] See id. at ¶ 6(b)(6) (using CSI as the sole metric for determining which project to begin).

In the latter case is true, then the FAA should reveal the method for using these additional metrics and permit the public to comment on this, because it will affect the manner in which the public's rights are protected.

The danger of retaining metrics that are not "officially used" is that they may start to be used on an unofficial basis as metrics by which decisions are made. In light of the fact that some of those metrics (CCI in particular) would yield a tremendous unfair advantage to certain classes of company without regard to consideration of real safety factors, it is important that the guidance be drafted so as to discourage use of those additional factors.

The Suggested Values Appear to be Almost Random, Leading to Non-Intended Results

The suggested values appears to have been thought-out relative to their peers within a single index factor, but the relationship among the index factors do not appear to have been thought-out.

For example, imagine three certification projects.

One of them is the type certificate for a brand new transport category aircraft. This will be incorporated into the production line (5 points) for a 20+ seat aircraft (7 points). This project has near term safety impact (8 points) because it reflects the complete certification of a new aircraft. This is a total of 280 points (the maximum), meaning that this project will be worked immediately.

The second project is a amended TC for an in-production (5 points) transport category aircraft (7 points) that will compete with project one. The amended TC reflects a product that will enjoy an updated certification basis (4 points) but that otherwise has a negligible safety impact. This is a total of 140 points, so it will reach the maximum of 150 points in the second week.

The third project is an emergency AD for a popular (5+ aircraft means 3 points) but out-of-production two-seat aircraft (4 points) that would have a high level of safety impact (eight points) but would still start with an initial safety index of 96 points.

Under this scenario, the emergency AD actually receives the lowest initial score, and may find itself awaiting resources until after the other (very time-consuming) projects have freed-up resources. This does not seem to be consistent with the FAA's safety mission.

For Sequenced Projects, There is No Distinction Among Projects With Safety Indices of 150

Once a project reaches a composite safety index (CSI) of 150, the CSI value stops increasing. This appears to have been done so that certain projects will always take precedence (those at the 151+ level).

The problem with this cap is that projects will reach that point in a few weeks, and at that point the projects are indistinguishable based on safety index. There is no tie-breaker specified, which means offices will be free to use any criteria that they choose to distinguish projects.

This could mean that an unpopular project could be held in the queue forever while more popular projects (or projects from companies with better personal relationships with the ACO) might come off the queue ahead of the unpopular project.

By unpopular projects, we mean any project that could be deemed less attractive by decision-making officials. This can include projects from smaller companies as well as projects that are not "sexy" but are nonetheless necessary to the functioning of the industry. It could also provide a pretext for disadvantaging companies based on illegal factors.

Conclusion

As you can see, there are serious issues with the proposed sequencing guidance. We are happy to sit down with you to work on ways to improve the guidance if you would like further input. Your consideration of these comments is greatly appreciated.

Respectfully Submitted,

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