

**Air Carrier Training Aviation Rulemaking Committee (ACT ARC)**

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**ACT ARC Recommendation 21-2  
Improvements to Structure and Format of AC 120–53B, Change 1**

**I. Submission**

The recommendations below were submitted by the Flight Standardization Board (FSB) Workgroup (FSB WG) for consideration by the Air Carrier Training Aviation Rulemaking Committee (ACT ARC) Steering Committee at its April 28, 2021, meeting. The ACT ARC Steering Committee adopted the recommendations, and they are submitted to the Federal Aviation Administration (FAA) as ACT ARC Recommendation 21-2.

**II. Statement of the Issue**

Since its original publication in 1991, Advisory Circular (AC) 120–53 has described a process and criteria for determination and approval of pilot training, checking, and currency necessary for safe operation of aircraft in air carrier operations. This process has been developed with a particular focus on pilots who frequently fly related aircraft in mixed fleet operations. The AC also describes the process by which the Federal Aviation Administration (FAA) determines "type rating" requirements applicable to the pilot in command of new or modified aircraft. As such, the AC has become a tool for internal FAA use as well as guidance for and use by original equipment manufacturer (OEM) applicants. Such guidance defines and determines the responsibilities of both FAA AEG inspectors and applicants seeking FAA determinations of pilot training, checking, and currency and type rating assignments. It has also become a valuable resource for all industry stakeholders who develop and manage pilot training programs. With the publication of AC 120-53B, Change 1, changes to the AC's format have affected its value to some segments of this audience of stakeholders. To adequately address the full scope of industry, the ACT ARC has the following recommendations.

**III. Recommendations**

The ACT ARC recommends the FAA consider the following actions:

1. Modify the content, structure, and format of AC 120-53B, Change 1 to clearly differentiate technical data (definitions, concepts, tests (e.g., T tests)) from process descriptions.

This distinction would ease the comparison of the technical data between bilateral partners (e.g., FAA AC 120-53B, Change 1 technical data vs. European Union Aviation Safety Agency (EASA) Certification Specification–Flight Crew Data (CS-FCD)). This comparison would be useful not only for current users but will aid implement any future bilateral validation process, as the bilateral partners must establish such differences in technical standards.

2. Update AC 120–53B, Change 1 to address and include all responsibilities of the FSB as stated in FAA Order 8110.4C, Type Certification.

Past and current versions of AC120-53 have focused on pilot qualifications and training, describing the FAA processes that determine pilot type ratings and the necessary training, checking, and currency. In addressing the contents of the FSB Reports (FSBR), for example, AC 120–53B, Change 1 implies that such reports only need to list the results of pilot training and qualification. The FSB’s responsibilities are, however, broader. The AC is titled: “Guidance for Conducting and Use of FSB Evaluations” and contains references to other responsibilities of the FAA Aircraft Evaluation Group (AEG) and FSB, such as operational suitability and effects of flight and handling characteristics on normal, non-normal, and emergency procedures. Further, these references are made in the context of inclusion in FSB Reports. The AEG’s and FSB’s full responsibilities also encompass processes linked to airplane certification contained in FAA Order 8110.4C, “Type Certification”, including the following:

- (a) Participate in compliance and Type Inspection Authorization (TIA) testing to evaluate the operational suitability of an aircraft and its systems,
- (b) Review aircraft flight manuals (AFM) and revisions,
- (c) Establish type rating requirements,
- (d) Participate in crew complement determinations,
- (e) Participate in emergency evacuation demonstrations,
- (f) Determine the acceptability of flight crew sleeping quarters and flight deck observer seats,
- (g) Establish any unique or special training requirements,
- (h) Participate in function and reliability testing,
- (i) Serve as a member of the Type Certification Board (TCB)
- (j) Determination of the operational suitability of the aircraft, and
- (k) The creation and closure of Issue Papers linked to aircraft certification.

Fully addressing the full scope of AEG responsibilities and FSB evaluations in the AC would benefit an internal FAA audience of inspectors. It would also give impetus to the FAA to use the FSB Report as a repository of all its FSB evaluation results, increasing the FSB Report’s technical value to both FAA inspectors and an industry audience. (see item 3.)

3. Ensure that all references to the FSB Report (FSBR) in AC 120–53B, Change 1 support a general FAA policy that FSBRs should contain all data obtained from AEG evaluations within the scope of the FSB.

The recent update of the FSBR template removed results from operational evaluations conducted by the AEG, such as those relating to cabin crew type training, emergency evacuation, flight crew rest, and equipment. Publication of the results of all the evaluations conducted by the AEG within the scope of the FSB would provide a valuable resource to end-users and industry stakeholders.

4. Emphasize in AC 120–53B, Change 1 that all Master Difference Requirements (MDRs) previously determined and approved by the FAA between related aircraft of a single make (same OEM) may be contained in a single FSB Report if doing so would provide Mixed Fleet Flying (MFF) clarity for users. As an example, the ACT ARC recommends the FAA allow inclusion of approved MDR data between aircraft with different Type Certificates that have been designated by the Administrator as “related”.

5. Revisit the development process and format for approved MDR tables included in AC 120–53B, Change 1. Currently, final MDR tables contain many asterisked items at the bottom of FAA approved MDR tables to differentiate nuances between variants or list alternate training level requirements/add-ons. As design and training relationships between aircraft have become more numerous, this format has become confusing to the reader. The ACT ARC recommends that the FAA reach out to FAA technical staff and industry to begin an effort to improve this process and MDR format.

6. In order to address and validate the full set of industry stakeholders and interested parties who derive value from AC 120–53B, Change 1, the ACT ARC recommends that it state that pilot training, qualification and rating requirements are used by aviation industry groups and operators interested in published evaluation data as a means to develop local standards.” (see Appendix 2 to AC 120–53B, Change 1, page 2, “FOCUS”).

#### **IV. Rationale and Discussion**

Appendix 2 of AC 120–53B, Change 1 states that the AC “applies to and is used by” FAA inspectors, aircraft manufacturers and modifiers and training providers as guidance in the evaluation of aircraft to determine pilot training and qualification requirements. Such evaluations can also establish credits for training between aircraft of the same or different type certificates (TC), consistent with applicable regulations. As such, the AC is not only a means to determine pilot training and qualification requirements and safely relate training programs between similar aircraft, but also a valuable resource for industry applicants seeking to obtain type rating determinations for aircraft, as well as training relationships between similar designs. Consequently, the evaluation processes described by the AC and the FSB reports documenting these evaluations are critical to not only the FAA but also the applicants themselves and training providers. These recommendations acknowledge this larger audience and recommend that the FAA address the full scope of the AC’s stakeholders.

#### **V. Background Information**

Recommendation 21-2 addresses Item 2 in the FSB WG Scope of Work and ACT ARC Initiative #43 (see below):

##### FSB WG Scope of Work:

2. Examine how the FAA could improve its current product (FSB Report) to meet the interests of all stakeholders.

ACT ARC Initiatives:

- Initiative #43: Examine how the FAA could improve its current Flight Standardization Board (FSB) Process and product (FSB Report) to meet the interests of all stakeholders.

References

- FAA Advisory Circular 120–53B, change 1, October 24, 2016.
- FAA Order 8900.1