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RE: Petitions for Exemption FAA-2006-25888 and FAA-2006-26060
Part 121 Classification of Major versus Minor Repairs and Alterations

The Aeronautical Repair Station Association (ARSA) submits these comments to expedite a Federal Aviation Administration (FAA) resolution of the issues facing 14 CFR part 121¹ certificate holders (carriers) regarding the referenced matter. Carriers have made major/minor repair/alteration classifications under § 1.1 definitions for many years. The carriers placed methods for making those determinations in their continuous airworthiness maintenance programs (CAMP or programs) and maintenance manuals (manuals). These programs and manuals were subsequently approved by or found acceptable to the FAA.

The Federal Aviation Act and FAA regulations fully endorse the practice of carriers making § 1.1 major/minor determinations. However, a carrier filed a Customer Service Initiative because it was required to incorporate part 43, appendix A into its programs and manuals. In addition, the referenced petitions for exemption from part 43, appendix A were filed by two carriers. Meanwhile, there are carriers who continue to use the definitions in § 1.1 as the method for determining whether an action is major or minor. The varied treatment of these determinations has cost millions of dollars.

ARSA believes the regulations clearly allow a carrier to make major versus minor determinations under § 1.1 without part 43, appendix A. The rules require a carrier to provide programs and manuals that cover all maintenance, preventive maintenance and alterations performed on its aircraft. The determination of whether a repair or alteration is major or minor is a maintenance function. Accordingly, the carrier's program and/or manual procedures must include how the determination of major versus minor repairs and alterations are made as well as how to ensure the data supporting major repairs and alterations are approved and how maintenance and alterations will be recorded.

¹ Unless otherwise noted all references are to Title 14 CFR.

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Summary

To resolve the questions surrounding the issue, we request that the FAA deny the petitions for exemption from part 43, appendix A, on the basis that the appendix does not apply to part 121. Part 43 only applies to carriers when it does not specifically direct compliance with part 121.

Part 121 covers all operations of carriers including maintenance, preventive maintenance and alterations. It requires certificate holders to perform operations and make determinations as set forth in its program(s) and manual(s). If the carrier's maintenance program and/or manual provides a methodology for making determinations of major versus minor repairs and alterations under § 1.1, that process must be followed by the carrier and anyone performing maintenance on its behalf.

Regulatory Analysis

We present the following analysis of the Federal Aviation Regulations to support the fact that an exemption to part 43, appendix A is unnecessary.

- Only limited sections of part 43 apply to all persons;² otherwise, it specifically directs carriers to part 121 for performance of maintenance, preventive maintenance and alteration for those certificate holders. Specifically:
 - Section 43.3(a) states “[e]xcept as provided in this section...no person may maintain, rebuild, alter, or perform preventive maintenance....Those items, the performance of which is a major alteration [or] a major repair...are listed in appendix A.” (Emphasis added.) By regulatory and legal construction, the exception language of paragraph (a) applies to the entire section, i.e., 43.3. Since section 43.3(f) specifically applies to carriers, section 43.3(a) exempts part 121 certificate holders from having to use the lists of major repairs and alterations in appendix A.
 - Section 43.3(f) requires the holder of an air carrier operating certificate or an operating certificate issued under part 121 to perform maintenance, preventive maintenance, and alterations as provided in part 121. This paragraph establishes that part 121 must be followed by carriers to comply with the

² Part 43 applies to all persons performing maintenance, preventive maintenance, rebuilding or alteration only in: § 43.1 Applicability, § 43.2 Records of overhaul and rebuilding, § 43.10 Disposition of life-limited aircraft parts, and § 43.12 Maintenance records: Falsification, reproduction, or alteration. There are paragraphs in all other sections that direct persons to part 121 for the appropriate requirements for performing maintenance, preventive maintenance and alteration for holders of part 121 certificates.

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- requirements of § 43.3.³ This preemption of the majority of part 43 by part 121 is mandated by the Federal Aviation Act (as amended). That law requires carriers to conduct their operations with the highest degree of safety.
- § 43.9(b) states that carriers' recordkeeping requirements must be covered in the program and manual(s) required by part 121.
 - Records for major repairs and alterations are also contained in the program and manual requirements of part 121.⁴ For other persons the lists in appendix A are also reached through the recordkeeping requirements of § 43.9(d). Since neither § 43.3(a) nor § 43.9(d) apply to carriers, appendix A cannot be applied to those certificate holders with respect to major repairs and alterations.
 - § 43.13(c) states that the carrier's method of performing maintenance, preventive maintenance and alterations establishes compliance with § 43.13. To perform these activities properly, the certificate holder must have a methodology for determining when a repair or alteration is major or minor so that appropriate data can be obtained and required records can be completed and maintained.
 - For those sections and paragraphs of part 43 directing persons to part 121, § 121.1(b) makes clear that the requirements of part 121 apply to each person employed or used by that certificate holder, including the provisions for the performance of maintenance, preventive maintenance, and alteration on its aircraft. Specifically:
 - Section 121.133(b) requires a carrier to prepare its own maintenance manual.
 - Section 121.135(b) states that its manual must contain instructions and procedures for performance of the maintenance, preventive maintenance, and servicing on its aircraft (§ 121.135(b)(17)). The determination of whether a repair or alteration is major or minor and the proper recording of those established as major are maintenance functions.⁵
 - The carrier's maintenance manual must contain the programs required by § 121.367. Among other requirements the maintenance manual must contain methods for performing routine and non-routine maintenance, preventive maintenance, and alterations. Routine and non-routine maintenance will include determinations of major versus minor repairs and alterations.

³ See, § 43.3(a), which specifically directs persons to this paragraph for maintenance, preventive maintenance and alterations under part 121.

⁴ See, § 43.9(a), which starts "[e]xcept as provided paragraph (b)...of this section..." and § 43.9(d) which states "[i]n addition to the entry required by paragraph (a) of this section...". It is clear that neither paragraph (a) nor (d) applies to carriers and that paragraph (b) directs carriers to part 121 for those certificate holders' recordkeeping requirements.

⁵ See AC 120-77 ¶(11)(a)(5), which states "Operators typically...classify the maintenance action [or] alteration action...as major or minor."

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- Those programs and manuals must be followed when performing maintenance, preventive maintenance, and alterations on the carrier's aircraft and parts thereof (§§ 121.363(a)(2), 121.367(a) and 121.369(b)).
- Carrier maintenance, preventive maintenance and alteration record requirements are found in §§ 121.369(c), 121.380, 121.701, and 121.709. In addition, reports of major repairs and alterations are required by § 121.707. The methods for compiling the required records must be set forth in the carrier's maintenance program and manuals.
- After the performance of maintenance, preventive maintenance or alterations in accordance with the carrier's CAMP and maintenance manual(s), it is authorized to approve the products for return to service. If a major repair or alteration is performed it must be done in accordance with approved technical data (§ 121.379(b)). Therefore, the program and manual(s) must establish:
 - How the determination of major versus minor is made,
 - How the carrier will ensure the technical data is approved after determining that the repair or alteration is major and,
 - How the major repairs and alterations are recorded.

The regulatory history of parts 43 and 121 confirm that a carrier must perform repairs and alterations in accordance with its manual. Civil Air Regulations (CAR) part 18 (replaced by part 43) required that major repairs or alterations be inspected and approved for return to service only if performed in accordance with a manual or other technical data approved by the Administrator.⁶ Likewise, CAR part 40 contained language that is similar to the present part 121 sections cited above.⁷ Further, the definitions of major repairs and alterations in part 18 are nearly identical to those in § 1.1.⁸

⁶ See, CAR § 18.11(b)(4) which states: *Major repairs and major alterations.* No airframe, powerplant, propeller or appliance, which has undergone a major repair or major alteration shall be returned to service until such repair or alteration has been examined, inspected and approved as airworthy by one of the following: * * * (4) An appropriately certificated air carrier, if the work has been performed by such air carrier in accordance with a manual, specification or other technical data approved by the Administrator....

⁷ See, § 40.1 Applicability of this part, § 40.50 Preparation of Manual, § 40.51(a)(15) Contents of Manual, § 40.240 Responsibility for Maintenance, § 40.241(a) Maintenance and Inspection Requirements, § 40.506 Maintenance Records, § 40.507 Maintenance Log, § 40.510 Alteration and Repair Reports, §40.511 Maintenance Release. See also, CAM 40 § 40.511-1: Explaining: "The purpose of the release is to assure that when any maintenance...is performed...[it] is completed satisfactorily in accordance with the air carrier's instructions...."

⁸ See, CAR § 18.1, which defines: *Major Alteration.* A major alteration of an aircraft or any component thereof is: (a) An alteration which might cause an appreciable change in its weight, balance, structural strength, performance, powerplant operations, flight characteristics or other qualities affecting

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The analysis establishes that a carrier must perform all maintenance under the provisions of part 121. To do so it must provide information on its maintenance, preventive maintenance and alteration policies, procedures and practices. The procedures must include how all repairs and alterations, including those determined to be major, will be performed. Once established, the carrier (and anyone working for the carrier) must comply with the program(s) and manual(s).

Consequently, when a carrier's manual contains a requirement to use § 1.1 definitions to determine when a repair or alteration is major or minor, it is not only permitted, it is required to follow the dictate in its own manual. The determination of major versus minor is clearly a maintenance function under the part 121 program and manual requirements.⁹

Conclusion

For the foregoing reasons, ARSA believes that the FAA must officially recognize that a carrier is obligated to make its own major/minor determinations as set forth in its CAMP and maintenance manual(s). This is a national issue that faces all carriers, the agency and the industry. ARSA requests the FAA to reaffirm the interpretation established by the regulatory history.

The most expeditious method of ensuring that carriers comply with the highest level of safety required by Congress is to deny the current petitions for exemption as unnecessary. In explaining its denial the agency must establish that part 121, not part 43, governs carrier operations, including maintenance, preventive maintenance and alteration. Since Part 43 only directs carriers to conduct all maintenance operations

airworthiness, or (b) An alteration which is not accomplished in accordance with accepted practices or cannot be performed by means of elementary operations.

Major repair. A major repair to an aircraft or any component thereof is: (a) A repair which, if improperly accomplished, would adversely affect the structural strength, performance, flight characteristics, powerplant operation, or other qualities affecting airworthiness, or (b) A repair which is not accomplished in accordance with accepted practices or cannot be performed by means of elementary operations.

Minor alteration. A minor alteration of an aircraft or any component thereof is an alteration other than a major alteration.

Minor repair. A minor repair is any repair other than a major repair.

⁹ FAA's guidance also recognizes that carriers make their own major/minor determinations. See, Advisory Circular 120-77, ¶ 11(a)(5) which states: "Operators typically process proposed changes through their engineering organizations. The engineers document the damage, condition, or contemplated action; conduct a technical analysis to determine whether the change would comply with the pertinent airworthiness standards; and classify the maintenance action [or] alteration action...as major or minor."

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under part 121, there is no need for an exemption from part 43, appendix A. Instead, the carrier must set forth in its part 121 required maintenance programs and manuals its method for:

- Making major versus minor repair and alteration determinations,
- Ensuring that major repairs and alterations are based upon approved data, and
- Recording major repairs and alterations.

ARSA looks forward to working with FAA on this issue and towards the implementation of the resolution proposed.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Colin P. Carroll".

Colin P. Carroll
Associate Counsel

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