INTERNATIONAL CIVIL AVIATION ORGANIZATION

FIRST MEETING OF DIRECTORS OF CIVIL AVIATION OF THE CARIBBEAN REGION (CAR/DCA/1)

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Agenda Item 2: Safety Oversight

REQUIREMENTS UNDER THE NEW AIRCRAFT REPAIR STATION RULE (14 CFR 145) EFFECTIVE APRIL 6, 2003

(Presented by the United States of America)

SUMMARY

This paper presents a review of the requirements contained in the new repair station rule (14 CFR 145) that becomes effective April 6, 2003. The United States' Federal Aviation Administration (FAA) proposed to revise the rule governing repair stations because several of the current sections were outdated, difficult to manage, and no longer reflected the way the repair and maintenance industry conducted its business. It also confirms the commitment of the United States to the international process by reducing, where applicable, the regulatory differences between FAA-certificated repair stations located within the United States and those located outside the United States.

1.0 INTRODUCTION

1.1 On August 6, 2001, the final repair station rule was published in the Federal Register culminating a 13-year effort to update the rule that governs aircraft repair stations. This action was necessary because many of the current repair station regulations do not reflect changes in repair station business practices and aircraft maintenance practices. The FAA recognized the need to develop requirements that were flexible enough to grow with the industry as new technologies were developed and implemented.

1.2 This rule eliminates, where practicable, the distinctions between repair stations based on their geographic location. The United States acknowledges that, regardless of their location, all repair stations subject to 14 CFR 145 are FAA-certificated repair stations performing maintenance on U.S.-registered or U.S.-owned/operated aircraft and components. The rule also includes language that embraces the use of bilateral agreements. All repair stations must comply with the requirements found in the rule when it goes into effect. Where differences exist, those requirements are called out specifically for repair stations located outside the U.S.

1.3 The new rule also updates regulatory requirements relating to housing, facilities, tools and equipment, materials, technical data, personnel, and general facility operations. Many archaic requirements were removed from the final rule as well as requirements that were not considered aviation safety issues. The rule was reorganized into functional categories and numerous areas of redundancy were removed to make the requirements easier to read and understand.

1.4 Two major proposed changes were withdrawn from the final rule for more review, comment, and rewrite. The first is the proposed system of ratings and the second item was the proposed quality assurance program. The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC) to research and to submit recommendations for these requirements for further rulemaking. The United States is planning to address these requirements again in additional future rulemaking to finish the revision of 14 CFR 145. A copy of this rule may be found on the FAA Regulation and Rulemaking web site at: http://www.faa.gov/avr/arm/nprm2001.cfm?nav=nprm. The date of the rule is August 6, 2001 and the docket number is FAA-1999-5836.

2.0 FOREIGN REPAIR STATION REQUIREMENTS

2.1 The United States has over six hundred FAA-certificated repair stations located outside its borders. These repair stations possess the same type and variety of ratings as repair stations within the United States. The final rule reduces duplicate regulatory requirements by eliminating the separation of “foreign” and “domestic” repair stations. In fact, this terminology has been removed from the rule completely. Although the final rule reduces the regulatory differences between these facilities, there are still some areas that the regulatory process cannot completely bridge. Of these areas, the requirement that repair stations located outside the United States still must renew their certificates every 1-2 years and must pay the required fees when their domestic counterparts do not, remains the most contentious.

2.2 The United States does not require personnel working in repair stations outside the U.S. to be certificated under 14 CFR 65 as their domestic U.S. counterparts must. This would conflict with bilateral agreements for those countries where the FAA found their personnel licensing procedures comparable to its own. Supervisors and those personnel authorized to approve articles for return to service in repair stations outside the United States do not require certification under 14 CFR 65, however, inspectors in these repair stations must be. Although supervisors do not require 14 CFR 65 certification, they must still meet the experience requirements found in the personnel certification section of the final rule.

2.3 Likewise, the United States cannot extend the requirement that foreign repair stations that perform maintenance, preventative maintenance, or alterations by contract for a U.S. air carrier be subject to the drug and alcohol programs required of their domestic counterparts. This still does not relieve the U.S. airlines from ensuring personnel working in repair stations outside the U.S. are not impaired while performing work for them.

2.4 Certification requirements for repair stations located outside the United States have also changed with this final rule. The requirement for these facilities to provide two copies of a brochure picturing the facility has been removed. However, the requirement for all repair station applicants to provide descriptions of their quality and inspection systems and other certification requirements has been retained in the final rule.

2.5 Lastly, repair stations located outside the United States must still demonstrate that the repair station certificate is necessary to perform maintenance, preventative maintenance, or alterations on U.S.-registered or U.S.-owned/operated foreign aircraft and their components at the geographic location of the repair station.

3.0 CHANGES IN REGULATORY REQUIREMENTS

3.1 Very few substantive changes have been made to the regulations applicable to repair stations since they were recodified in Title 14, Code of Federal Regulations, in 1962. The rule format was reorganized removing the “domestic” and “foreign” repair station section titles and replacing those categories with more functional sections such as “certification,” and “personnel,” and “operating rules.” Additionally, manufacturer’s maintenance facilities (MMFs) have been eliminated with this rule. MMFs will need to be certificated in accordance with the requirements found in 14 CFR 145 if they plan to continue to perform maintenance and approve articles for return to service.

3.2 The repair station Inspection Procedures Manual (IPM) is being replaced with a Repair Station Manual (RSM) and a Quality Control Manual (QCM). The Repair Station Manual describes the way the repair station will conduct its business while the Quality Control Manual describes the repair station’s inspection program and quality system. For the first time, the final rule requires repair stations to prepare, keep current, and follow their manuals.

a) The repair station manual will include such items as the repair station’s organizational chart, management positions and responsibilities, and descriptions of the recordkeeping system and its housing, facilities, equipment, and materials it will use in the performance of its work. The RSM will also include procedures for updating the required rosters, the capability list, the training program, how it will perform maintenance for air carriers, and its manual revision process.

b) The quality control manual establishes and describes the repair station’s quality control system. This is identified as the repair station’s inspection system in the current 14 CFR 145 rule and has remained basically unchanged. In the QCM, the repair station must include their procedures for inspecting incoming raw materials, performing preliminary inspections, and inspections for hidden or accidental damage. The QCM also must have procedures on maintaining the proficiency of its inspection personnel, maintaining its technical data, and qualifying and

surveilling non-certificated contractors. The quality manual must also include its calibration system and samples of its forms and the instructions for completing these forms.

3.3 Additional housing and equipment requirements have been included as well as relaxation of current requirements to reflect the changing business environment. Of particular note is the change in the requirement for an airframe-rated repair station to be able to house one of the heaviest aircraft in its class. This requirement has been changed to require only the housing that will completely enclose the largest aircraft the repair station is rated to perform maintenance on. This relieves the need for numerous exemption petitions. Also, once certificated, repair stations need not permanently buy or keep expensive, seldom-used equipment and tooling. The new rule allows for these items to be leased or rented when needed. However, they are required to be on the premises whenever the repair station is being certificated, changing ratings, or performing the work requiring these tools.

3.4 Contract maintenance requirements have been enhanced to better describe the procedures for using non-certificated maintenance providers and maintain control over the quality of articles repaired by these facilities. The FAA removed the requirement to audit other certificated repair stations that are used for contract work. The repair station must submit a list of contractors, along with the maintenance functions they will perform for the repair station, to the FAA. Although the contractors are accepted, the FAA must approve the maintenance functions they will contract out. With the removal of "Appendix A" in the current rule, the FAA must ensure the repair stations are performing the majority of the maintenance and not simply providing the approval for return to service.

3.5 Satellite repair station procedures have been added to the regulation as well as enhancing work away from station requirements to allow repair stations more flexibility in their business arrangements. Although satellites must have the same ratings as the repair station with managerial control, these facilities will be able to share tools, equipment, RSM and QCM procedures, and qualified personnel. When a permanent satellite is not needed to perform maintenance away from the station under temporary conditions, the repair station must have procedures in its manuals that describe how it will comply with its manual and part 145 for all work performed away from station.

3.6 A training program requirement has been added to ensure repair station personnel responsible for making airworthiness decisions are trained and knowledgeable. The training program implementation has been delayed until April 6, 2005. Prior to that date, repair stations will be required to submit their training programs to the FAA for approval. The training program must be described in the repair station manual and should include procedures the repair station will use to update the program and training record retention.

3.7 The ability to use an optional capability list has been restricted to limited-rated repair stations. This will allow these facilities to limit the amount of manufacturer's maintenance manuals, tooling, and equipment required for repair stations to obtain or add ratings to only those items listed in its capability list.

4.0 WITHDRAWN REQUIREMENTS

4.1 Due to enormous public opposition, the proposed revisions to the repair station rating system and the new requirement for a quality assurance program were withdrawn from the final rule. The notice of proposed rulemaking (NPRM) requested comments on a new rating system. The comments received, however, lacked any consensus or identifiable direction on what constitutes a viable rating system for today's maintenance industry. The current rating structure is outdated, irrelevant in some maintenance areas, and cannot keep pace with advancements in aircraft technologies or quickly incorporate new maintenance methods and techniques without accomplishing a complete overhaul of the rule.

4.2 The proposed quality assurance program was also withdrawn due to inadequate comments from industry—except those comments that strongly opposed the proposed program. To allow the FAA more time to study what an ideal repair station quality assurance system should encompass, the requirement is being researched and will be addressed in further rulemaking.

4.3 Appendix A was removed from the final rule language because other improvements in the rule removed the necessity to continue using it. Additionally, it was outdated and could not be kept current with today's maintenance industry. Because the FAA did not originally propose to remove it, the final rule included the opportunity for the public to comment on its removal. Having received no adverse comments, it was officially eliminated from the rule on October 5, 2001.

5.0 CONCLUSIONS

5.1 Growth in aviation maintenance, interdependence of aircraft manufacturers, and the development of international trade agreements have made several requirements of the existing regulations obsolete. The FAA has become excessively burdened by the increased demand for exemptions from the regulations so that maintenance facilities can continue to operate when the requirements no longer keep pace with the industry.

5.2 Although this rule goes a long way towards updating requirements that date back to the 1950s, the FAA still has a lot of work left to complete the revision to 14 CFR 145. The revisions contained in this rule clarify the intent of the rule, provide more regulatory flexibility in carrying out the requirements, and in some cases lessen the regulatory burdens without compromising safety. The FAA has already begun formulating its action plan to improve the rating system and add a quality assurance program better suited to repair stations and the type of maintenance this industry performs.

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