DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 43

[Docket No. 28273; Amendment No. 43–36]

RIN 2120–AE57

Revisions to Maintenance and Preventive Maintenance Rule

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This rule amends the maintenance rules to allow properly trained pilots of aircraft type certificated for 9 or fewer passenger seats and operated under 14 CFR Part 135 to perform certain maintenance tasks on their aircraft. This rule also adds certain tasks to those items considered to be preventive maintenance. The changes are needed because a large number of exemption requests has demonstrated a need for pilots conducting certain types of operations to be able to respond more rapidly to emergency medical missions and to reconfigure cabins to accommodate changing needs to transport varying combinations of passenger and/or cargo in situations when a certificated mechanic is not available to perform the required maintenance task. This rule will improve emergency response and flight turnaround times for these operations, and will relieve the public and agency burdens of filing and processing exemptions.

EFFECTIVE DATE: May 31, 1996.

FOR FURTHER INFORMATION CONTACT: Edward L. Ortiz, General Aviation Commercial Branch (AFS–340), Aircraft Maintenance Division, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D.C. 20591, (202) 267–8203.

SUPPLEMENTARY INFORMATION:

Background

Statement of the Problem

Many small air carriers operating under 14 CFR part 135 (part 135) perform missions in locations where or during times when a certificated mechanic may not be available to perform certain maintenance tasks that need immediate attention. These air carriers provide emergency ambulance service; transport internal organs for emergency medical treatment; transport packages, parts, and electronic equipment whose delivery is of a time-critical nature; and provide normal passenger-carrying service, occasionally with freight as a secondary load. Because the demand for these services varies and, especially in the case of medical emergency calls, arises at all times of the day, it is impossible for air carriers to anticipate airplane configuration requirements.

Performing cabin conversions to aircraft operating under part 135 is considered either maintenance (if extensive) or preventive maintenance (if simple), and must currently be performed by a certificated mechanic as required by § 43.3. Similarly, the removal and replacement of medical oxygen bottles is considered maintenance and must be performed by a certificated mechanic.

For many carriers, locating a mechanic each time a request for service occurs creates lengthy delays that are costly and could be potentially life threatening to injured or ill passengers. Similarly, providing a maintenance crew on ''24-hour call'' is cost prohibitive for many carriers.

In addition to imposing these burdens, the current regulations also prohibit general aviation pilots from removing and replacing easily removable communication and navigation devices, and from updating easily replaceable data bases. Certain aviation communication and navigation systems are now designed for easy removal and data base update. Many privately-owned aircraft owners and operators prefer to remove this self-contained equipment (a job that normally requires only an allen wrench and no disassembly of the unit) to prevent theft. They also would like to be able to insert flight plans or update the Air Traffic Control (ATC) software data base. Current regulations require that a mechanic perform these tasks.

History

The FAA has addressed over 250 petitions for exemption from the sections of part 43 governing these ''maintenance'' items. A majority of these petitions were from nonhelicopter, air taxi operators who learned from local FAA inspectors that their pilots are not authorized to reconfigure their cabins or exchange medical oxygen bottles. The petitions for exemption highlight several common issues: (1) Many small part 135 air carriers operate in areas where they undergo a hardship due to their regions' lack of certificated mechanics; (2) Many others operate during times when certificated mechanics are not normally on duty (these missions are usually time-critical); and (3) Many of these operators are unable to operate their aircraft in only one configuration. Passenger-to-cargo or passenger-to-stretcher conversion ensures the most efficient utilization of cabin space on each flight. In most instances, seats stretchers, base assemblies, and other items used in the conversion are approved for aircraft installation, and the procedures for installation and removal are designed to be accomplished safely by a trained person.

Historically, the FAA has granted exemptions to permit pilots of aircraft operated under part 135 to perform seat removal and replacement tasks only if the aircraft were operated in remote areas such as the Alaskan bush or sparsely populated areas of the Northwestern United States. Certificated mechanics servicing these areas are scarce. Many of the operations include such essential services as flying food, mail, needed goods, and people into and out of areas that may not be accessible by other modes of transportation.

More recently, however, exemptions have been granted to part 135 air carriers to permit their properly trained pilots to reconfigure cabin seats when flying missions of an emergency nature during times—at night and on weekends—when certificated mechanics are not normally available, and when a time delay incurred by locating a mechanic could cause undue burden or create a life-threatening situation.

The FAA has determined that if a properly trained pilot can change seat configurations in a remote area where a certificated mechanic is not available (and which might be performed under adverse conditions), he or she would be capable of and should be allowed to perform the same conversions under better conditions such as those present at the operator's maintenance base.

Passenger-to-cargo and passenger-to-stretcher conversions have been performed safely by pilots who have been trained to do so and who are employed by air carriers holding exemptions allowing their pilots to perform the tasks. No reported incidents or accidents have been attributed to properly trained pilots changing aircraft cabin configurations. If an air taxi operator develops an appropriate program for performing seat conversions and appropriately instructs and trains its pilots according to the program, safety levels equivalent to those achieved by certificated mechanics will be maintained.

Also, on January 10, 1994, the FAA published a Request for Comments (59 FR 1326; docket No. 27581) to solicit from the public a list of those regulations that are believed to be unwarranted or inappropriate. The

agency received eight comments that addressed the maintenance and preventive maintenance regulations of part 43. The commenters noted that current regulations do not allow a pilot of a part 135 operator to remove and reinstall aircraft cabin seats and stretchers. The comments feel that the current regulations are unnecessary and are financially and physically burdensome. They point out that the FAA has issued a number of exemptions to relieve the burden, and that the exemption process itself is burdensome and time consuming.

The FAA has determined that the concern shown for this issue is significant, and that this rulemaking action is consistent with the agency's responsibility to review the continuing need for its regulations and to eliminate regulations that impose unnecessary burdens.

Related Rulemaking

The Aviation Rulemaking Advisory Committee (ARAC), which is a committee composed of aviation community and FAA personnel, has been tasked with reviewing part 43 and Appendix A to determine what revisions, if any, should be made. The FAA has not yet received any recommendations.

The Current Rule

Part 43 requires air carriers to use certificated mechanics for their aircrafts' maintenance and preventive maintenance needs. This requirement reflects an FAA policy that passengers of all aircraft be given a high degree of safety protection through the proper installation of cabin seats and appointments. As outlined in Appendix A, paragraph (c), of this part, removal and replacement of aircraft seats is considered preventive maintenance.

Several years ago, the FAA recognized the need for pilots operating helicopters under part 135 to be able to perform certain preventive maintenance tasks when operating in remote areas. Accordingly, the agency amended part 43, effective January 6, 1987 (51 FR 40702, Nov. 7, 1986), by adding a new § 43.3(h), which authorizes part 135 certificate holders to allow their pilots, when operating rotorcraft, to perform specific preventive maintenance tasks, under the following conditions:

(1) The items of preventive maintenance must be a result of a known or suspected mechanical difficulty or malfunction that occurred en route to or in a remote area.

(2) The pilot must have satisfactorily completed an approved training program and is authorized, in writing, by the certificate holder for each item of preventive maintenance that the pilot is authorized to perform.

(3) There must be no certificated mechanic available to perform preventive maintenance.

(4) The certificate holder must have procedures to evaluate the accomplishment of a preventive maintenance item that requires a decision concerning the airworthiness of the rotorcraft.

(5) The items of preventive maintenance authorized by this section must be those listed in paragraph (c) of Appendix A of part 43.

Discussion of Comments

A Notice of Proposed Rulemaking (NPRM) entitled ''Revisions to Maintenance and Preventive Maintenance'' was published on July 18, 1995 (60 FR 36926), which solicited public comment. Forty comments were received. Thirty-one commenters agree with the proposal as published.

Five commenters believe that airplanes with 10 to 19 passenger seats should be included in the rulemaking, and one commenter believes that rotorcraft with 10 or more seats should be similarly included. The FAA disagrees. This rulemaking was precipitated by the volume of exemption requests that were filed by operators who needed a shorter turn-around time to respond to emergency medical missions and other time sensitive operations, or who operated in areas where a certificated mechanic was not available. Almost all of the exemption requests were filed by operators whose airplanes are configured with nine or fewer passenger seats. As stated in the NPRM, the FAA continues to find that operators of aircraft type certificated for 10 or more passenger seats are required to have a maintenance organization in place to support their part 135 operations, and their aircraft tend to be more complex in design and construction. The FAA will continue to address operations using aircraft configured with 10 or more passenger seats on a case by case basis. There will be no change to the proposed rule as a result of these comments.

One commenter suggests that the regulatory language in § 43.3(h) be amended to include fixed wing aircraft with nine or fewer passenger seats. The FAA disagrees. This rulemaking addresses specific tasks associated with specific operations, and the suggestions of the commenter are outside the scope of this action. There will be no change to the proposed rule as a result of these comments.

One commenter proposes that the word ''aircraft'' be changed to read ''airplane.'' The FAA disagrees. The rule is intended to include rotorcraft so helicopter pilots can also perform the tasks prescribed that allow for a shorter turn around in emergency situations. Without the term ''aircraft,'' helicopter pilots transporting patients, for instance, would not be allowed to reconfigure their cabins without an exemption. The commenter also proposes that the word ''fewer'' be replaced by the old term ''less'' in the context ''nine or fewer.'' The FAA recognizes that people are familiar with the hold terminology, but the agency is moving in a direction to correct grammatical errors whenever rules are revised. The new term, ''nine or fewer'' is being incorporated into new rulemaking efforts. There will be no change to the proposed rule as a result of these comments.

The same commenter is concerned about the phrase in paragraph (i) that says ''may perform the removal and reinstallation of approved aircraft cabin-mounted seats. . .'' He suggests that the sentence should include a reference to maintenance and preventive maintenance, as stated in the section title, and that the term ''aircraft'' should again read ''airplane.'' The FAA disagrees. The title of the section is sufficient without repeating it in paragraph (i); the redundancy would not clarify the rule language, but would rather make it more cumbersome. The argument for ''aircraft'' vs. ''airplane'' is addressed above. There will be no change to the proposed rule as a result of these comments.

The same commenter suggests that the rule should allow pilots of part 135 rotorcraft to perform the functions. The FAA agrees and will retain the term ''aircraft'' in the rule language. The commenter suggests that the reference to part 135 be removed from § 43.3(g), which, he states, would eliminate the need for paragraph (h) and (i). He also suggests that current paragraphs (h) (2), (3), (4), and (5) should be incorporated into existing paragraph (g), and that existing paragraph [i] should be redesignated as new paragraph (h). Under this scheme, existing paragraph (h)(1) would be eliminated. He also suggests that the new rule should add the removal and reinstallation of stretchers and cabin-mounted medical oxygen bottles to [paragraph (c) of] Appendix A. The FAA disagrees. Removing the reference to part 135 from § 43.3(g) would allow pilots to perform any of the tasks listed in paragraph (c) of Appendix A. The purpose of this rulemaking is to allow pilots performing specific operations to perform only

certain tasks relevant to the operation. Pilots are hired to fly aircraft, not to perform maintenance and preventive maintenance in all areas on a regular basis. Moreover, the suggestion to incorporate existing paragraphs (h) (2), (3), (4), and (5) into existing paragraph (g) would have the unintended effect of having general aviation pilots, who operate under part 91, meet requirements intended and adopted for rotorcraft pilots who operate under part 135 in order to perform preventive maintenance tasks. The suggestion to revise § 43.3(g) is outside the scope of this rulemaking and no change to the proposal will be made pursuant to the suggestion.

Two commeters point out that removing and replacing navigation and communication devices (paragraph (c)(31)) could adversely affect safety if the connectors are not properly engaged upon reinstallation and no operational check is performed. The FAA agrees, and has revised the proposed rule language to reflect that the panel-mounted device must be a front loading device that employs a tray-mounted connector that connects the unit when the unit is installed into the instrument panel. Language has also been added to paragraphs (c)(31) and (c)(32) to require an operational check prior to use, in accordance with the applicable sections of part 91. Depending on the type of flight and/or the type of equipment, a pilot would have to comply with FAA91.407 or § 91.171.

One of these commenters also suggests that procedures on how to perform the maintenance task and any testing required to determine if the equipment is serviceable after maintenance is performed, should be documented in the aircraft flight manual. The FAA agrees that the information should be made available to the pilot, but will not restrict the location of the material to the flight manual. Paragraph (i)(2) has been revised to require the certificate holder to have written procedures available to the pilot to evaluate the accomplishment of the task.

The same commenter states that the tasks permitted in this rulemaking should be allowed only when there is no maintenance personnel available. The FAA disagrees. During rulemaking proceedings, the FAA examined this issue extensively. The definition of ''availability'' is complex enough that in this case, it was determined that if a pilot is properly trained to perform the tasks, he or she should be permitted to perform them whenever needed during operations described in this rulemaking action. Over 250 exemptions have been granted by the FAA to allow pilots to perform the tasks described here, with no adverse effect on safety. Therefore, no change will be made to the proposal as a result of this comment.

International Compatibility

The FAA has reviewed corresponding International Civil Aviation Organization regulations and Joint Aviation Authority regulations, where they exist, and has identified no differences in these proposed amendments and the foreign regulations.

Paperwork Reduction Act

Information collection requirements in the amendment to § 43.3 have been previously approved by the Office of the Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (Pub. L. 96–511) and have been assigned PMB Control Number 2120–0021. For further information contact: the Information Requirements Division, M–34, Office of the Secretary of Transportation, 400 Seventh Street, SW., Washington, DC 20590, (202) 366–4735.

Regulatory Evaluation Summary

Executive Order 12866 established the requirement that, within the extent permitted by law, a Federal regulatory action may be undertaken only if the potential benefits to society for the regulation outweigh the potential costs to society. In response to this requirement, and in accordance with Department of Transportation policies and procedures, the FAA has estimated the anticipated benefits and costs of this rulemaking action. The FAA has determined that this rule change is not a significant rulemaking action as defined by Executive Order 12866 (Regulatory Planning and Review). The results are summarized in this section. For more detailed economic information, see the full regulatory evaluation contained in the docket.

This rule is cost relieving because it eliminates the need for operators to carry mechanics on trips to remote areas or make special trips to maintenance facilities for the purpose of altering seat configurations or exchanging medical oxygen bottles. Currently, even if a mechanic is not needed on a regular basis at a remote site, operators may have to hire the services of a local mechanic to reconfigure a cabin, which can be especially expensive for emergency medical evacuation operations conducted at night during off-duty hours. For the purposes of this regulatory evaluation, the FAA assumes that typical air taxi operators that fly into remote areas where mechanics are scarce could make 36 trips per year that require cabin configuration. The FAA further assumes that a pilot flying into a remote area has to fly the airplane for an additional hour (roundtrip) to a larger airport where a mechanic is available to perform the required maintenance.

The FAA estimates that a mechanic will have to be paid for ½ hour of working time at a loaded wage rate (including benefits) of $18.16 per hour. The FAA also estimates that, in the event a cabin reconfiguration is needed in a remote area, the airplane burns an additional 30 gallons of fuel during the one hour of flying time needed to reach an available mechanic, which adds $60 to operating costs. The additional cost per trip amounts to $69. On an annual basis, these cost-savings amount to $2,484 ($69×36) based on the assumption of 36 trips per year. The FAA further estimates that at least 30 operators per year have a recurring need to reconfigure cabins in remote areas based on the number of requests for exemption from the requirements of § 43.3 submitted to the FAA each year. This number is a very conservative estimate; many air taxi operators are unaware of this option and forego the additional revenue that could be earned through reconfiguring their cabins. The FAA estimates that industry-wide cost savings from the proposed rule amendment amount to $74,520 per year ($2,484×30). Over a 10-year period, the discounted value of these cost savings amounts to $523,382.

Since January 1987, part 135 rotorcraft operators have been permitted to allow their pilots to perform certain preventive maintenance tasks, under very limited specified conditions, one of which is that the item of preventive maintenance must be the result of a malfunction that occurred en route to or in a remote area. In addition, numerous exemptions that permitted pilots of aircraft operating under part 135 to reconfigure cabins were granted to operators of rotorcraft. Each of the above authorizations contained a requirement that the pilot be properly trained for the preventive maintenance task that would be undertaken. Rotorcraft pilots operating under part 91 rules are authorized to perform preventive maintenance tasks under § 43.3(g).

National Transportation Safety Board (NTSB) accident reports reveal no instance of rotorcraft accidents where the removal and replacement of cabin seats by a rotorcraft pilot was suspected as a possible cause. In fact, a search of the FAA and NTSB accident and incident data recorded for part 91 and

part 135 operations over the 1972-present period did not reveal a single instance in which the performance by a pilot of any of the tasks that would be authorized in this final rule were suspected as having had a causal role in an accident. The FAA has therefore determined that this final rule is cost relieving and will not reduce the current level of safety.

In the NPRM, the FAA solicited information from the public to refine its estimate of cost savings. No comments were received.

International Trade Impact Analysis

This rule will affect only those operators engaged in part 135 operations of a localized or regional nature. No impact is expected on international trade because these domestic operators seldom compete with foreign firms in the markets they serve.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by government regulations. The RFA requires agencies to review rules that may have ''a significant economic impact on a substantial number of small entities.'' This final rule is of a cost relieving nature and will therefore afford cost savings to individual part 135 operators.

Under FAA Order 2100.14A, the criterion for a ''substantial number'' is a number that is not less than 11 and that is more than one third of the small entities subject to the rule. This rule will affect all part 135 operators who operate aircraft type certificated for 9 or fewer passenger seats. For operators of aircraft for hire, a small operator is one that owns, but not necessarily operates, nine or fewer aircraft.

The FAA's criterion for a ''significant impact'' is $4,330 or more per year for a unscheduled operator. The extent of the cost savings per operator is estimated at $2,484 per operator in the section on economic impacts. The FAA concludes, therefore, that this rule will not have a significant economic impact, positive or negative, on a substantial number of small entities.

Federalism Implications

This final rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this rule will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this final rule is not a significant regulatory action under Executive Order 12866. In addition, the FAA certifies that this final rule will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This rule is considered nonsignificant under Order DOT 2100.5, Policies and Procedures for Simplification, Analysis, and Review of Regulations. A regulatory evaluation of the rule, including an initial Regulatory Flexibility Determination and International Trade Impact Analysis, has been placed in the docket. A copy may be obtained by contacting the person identified under **FOR FURTHER INFORMATION CONTACT**.

List of Subjects 14 CFR Part 43

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 43 of the Federal Aviation Regulations as follows:

PART 43—MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, AND ALTERATION

1. The authority citation for part 43 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44703, 44705, 44707, 44711, 44713, 44717.

2. In § 43.3, paragraph (i) is redesignated as paragraph (j), and a new paragraph (i) is added to read as follows:

§ 43.3 Persons authorized to perform maintenance, preventive maintenance, rebuilding, and alterations.

* * * * *

(i) Notwithstanding the provisions of paragraph (g) of this section, in accordance with an approval issued to the holder of a certificate issued under part 135 of this chapter, a pilot of an aircraft type-certificated for 9 or fewer passenger seats, excluding any pilot seat, may perform the removal and reinstallation of approved aircraft cabin seats, approved cabin-mounted stretchers, and when no tools are required, approved cabin-mounted medical oxygen bottles, provided—

(1) The pilot has satisfactorily completed an approved training program and is authorized in writing by the certificate holder to perform each task; and

(2) The certificate holder has written procedures available to the pilot to evaluate the accomplishment of the task.

* * * * *

3. In Appendix A to part 43, paragraph (c)(30)(i), the reference ''§ 147.21(f)'' is revised to read ''§ 147.21(e) of this chapter.''

4. In Appendix A to part 43, paragraphs (c)(31) and (c)(32) are added to read as follows:

Appendix A to Part 43—Major Alterations, Major Repairs, and Preventive Maintenance

* * * * *

(c) * * *

(31) Removing and replacing self-contained, front instrument panel-mounted navigation and communication devices that employ tray-mounted connectors that connect the unit when the unit is installed into the instrument panel, (excluding automatic flight control systems, transponders, and microwave frequency distance measuring equipment (DME)). The approved unit must be designed to be readily and repeatedly removed and replaced, and pertinent instructions must be provided. Prior to the unit's intended use, and operational check must be performed in accordance with the applicable sections of part 91 of this chapter.

(32) Updating self-contained, front instrument panel-mounted Air Traffic Control (ATC) navigational software data bases (excluding those of automatic flight control systems, transponders, and microwave frequency distance measuring equipment (DME)) provided no disassembly of the unit is required and pertinent instructions are provided. Prior to the unit's intended use, an operational check must be performed in accordance with applicable sections of part 91 of this chapter.

§ 43.7 [Amended]

5. In section 43.7(d), the reference ''§ 43.3(h)'' is revised to read ''§ 43.3(j)''.

§ 43.11 [Amended]

6. In section 43.11(b), the reference ''§ 91.30(d)(2)'' is revised to read ''§ 91.213(d)(2) of this chapter''.

Issued in Washington, DC, on April 26, 1996.

David R. Hinson,

Administrator.

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