

## Title 14—AERONAUTICS AND SPACE

### Chapter I—Federal Aviation Administration, Department of Transportation

[Docket No. 10079; Amdts. 121-71, 127-22]

#### PART 121—CERTIFICATION AND OPERATIONS; DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

#### PART 127—CERTIFICATION AND OPERATIONS OF SCHEDULED AIR CARRIERS WITH HELICOPTERS

##### Maintenance Manuals

The purpose of these amendments to Parts 121 and 127 of the Federal Aviation Regulations is to permit certificate holders certificated thereunder to prepare, use, and distribute the maintenance part of their required manuals, in whole or in part, in microfilm, and to require those certificate holders electing to use the microfilm format to provide a suitable reading device for those persons to whom the certificate holder must distribute the manual.

These amendments are based on a notice of proposed rule making (Notice 70-4) issued on January 20, 1970, and published in the FEDERAL REGISTER on January 27, 1970 (35 F.R. 1054). Eight commentators responded to the notice. Although all but one commentator favored the concept proposed, several suggestions were received and they are discussed below.

Parts 123 and 135 incorporate the manual requirements of Subpart G of Part 121 by references in §§ 123.27 and 135.2. Therefore, these amendments apply to air travel clubs governed by Part 123 and also air taxi operators governed by Part 135 who have authority to use large airplanes in the conduct of their operations.

Two commentators stated that the language as proposed indicated that certificate holders electing to use the microfilm maintenance manual would be required to supply the FAA (as one of the recipients of the maintenance manual) with a reading/printout device, and would thus be required to bear a significant economic burden. It was not the intent of the proposal to require the certificate holders electing to use the microfilm form to provide a device with both a readout and printout capability. The FAA believes that a readout device is sufficient to make the microfilm maintenance manual an acceptable form, if it provides an image which is of sufficient size and clarity to insure legibility. Accordingly, this amendment requires a reading device that provides a legible facsimile image of the microfilmed manual.

Comment was also received objecting to any requirement that certificate holders furnish the FAA with the necessary reading devices. The view was expressed that if all carriers supplied the various

FAA offices with such devices the economic burden would be substantial and duplication would be unavoidable. Further, it was stated that the FAA should bear the expense of providing its personnel with the necessary equipment.

With regard to this objection, it should be pointed out that rather than supply various FAA offices with a reading device, the intent of the proposal, as expressed in the notice, was that each certificate holder would furnish but one reading device to the FAA, at the FAA District Office having jurisdiction over the particular certificate holder. In addition, the FAA does not agree that it should bear the expense of providing the necessary equipment inasmuch as the use of microfilm is permissive, and in light of the fact that a microfilmed maintenance manual is not complete until it can be used and its use depends upon a suitable reading device. Because the certificate holder is required by the regulations to submit a maintenance manual,

the FAA believes the certificate holder should be responsible for all steps necessary to make the manual complete.

It was suggested by one commentator that the term "microfilm", although technically the generic term for all microforms, be deleted and the term "microform" substituted therefor inasmuch as the former has a limited meaning to many people within and without the microfilm industry. While the FAA is aware of the distinction between the two terms, the term microfilm was chosen because it was broad enough to encompass several microforms. We believe the term will be readily understood among Part 121 certificate holders.

The one commentator opposed to the notice stated that its experience with microfilm demonstrated that rather than solve the problems created by the conventional loose leaf maintenance manual, it merely continued these problems in a different form. Specifically, the commentator cited the frequent loss of temporary revisions, the failure of such revisions to be filed, the difficulty in using temporary revisions in conjunction with the cassette form, and the lack of readily available viewing devices. While the FAA is aware of the fact that in its initial stages the microfilm concept may cause minor problems in the physical handling of the manual, we believe, as stated in the notice, that a microfilm manual, once it has been in use, will solve many more problems than it will create.

Another commentator questioned whether the requirement that the certificate holder furnish a reading device would be applicable in the case of supplemental air carriers or commercial operators who must carry their manuals aboard the aircraft pursuant to § 121.139(a). Inasmuch as the microfilmed manual is only complete when used in conjunction with a reader, it is the opinion of the FAA that a suitable reader should accompany the manual in the airplane in order to insure that the manual will be usable whenever a supplemental air carrier or commercial

(As published in the Federal Register  
/35 F.R. 218/ on November 7, 1970)

operator needs it. Therefore, § 121.139(a) has been amended accordingly.

Finally, it was recommended by several supporting commentators that the principle of the proposal be broadened to cover such items as operations manuals and operations specifications. The application of the microfilm concept to these other areas is outside the scope of the subject notice; however, the FAA will continue to study the feasibility and applicability of microfilm as suggested, and one source of information will be the experience gained in the use of the microfilmed maintenance manual. Furthermore, the FAA will consider the feasibility of using other technological advancements in related areas such as computer storage and transmission in an effort to provide the most effective system for the preparation, retention, and use of required information.

Interested persons have been given an opportunity to participate in the making of these amendments, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, Parts 121 and 127 of the Federal Aviation Regulations are amended, effective December 7, 1970, as follows:

1. By adding a new paragraph (c) to § 121.133 to read as follows:  
§ 121.133 Preparation.

(c) For the purpose of this subpart, the certificate holder may prepare that part of the manual containing maintenance information and instructions, in whole or in part, in printed page form or microfilm.

2. By adding a new paragraph (c) to § 121.137 to read as follows:  
§ 121.137 Distribution.

(c) For the purpose of complying with paragraph (a) of this section, a certificate holder may furnish the persons listed therein the maintenance part of the manual in microfilm form if it also furnishes and maintains a reading device that provides a legible facsimile image of the microfilmed maintenance information and instructions.

3. By adding the following new sentence to paragraph (a) of § 121.139 to read as follows:

§ 121.139 Requirement for manual aboard aircraft: supplemental air carriers and commercial operators.

(a) \* \* \* If a supplemental air carrier or commercial operator carries aboard an aircraft all or any portion of the maintenance part of its manual in microfilm it must also carry a reading device that provides a legible facsimile image of the microfilmed maintenance information and instructions.

4. By amending § 127.61 to designate existing text as paragraph (a) and adding (b) as follows:

§ 127.61 Preparation.

(b) For the purpose of this subpart, the certificate holder may prepare that part of the manual containing maintenance information and instructions, in whole or in part, in printed page form or microfilm.

5. By adding a new paragraph (c) to § 127.65 to read as follows:

§ 127.65 Distribution.

(c) For the purpose of complying with paragraph (a) of this section, a certificate holder may furnish the persons listed therein the maintenance part of the manual in microfilm form if it also furnishes and maintains a reading device that provides a legible facsimile image of the microfilmed maintenance information and instructions.

(Secs. 313(a), 601(a), Federal Aviation Act of 1958, 49 U.S.C. 1354(a), 1421; sec. 6(c), Department of Transportation Act, 49 U.S.C. 1655(c))

Issued in Washington, D.C., on November 3, 1970.

J. H. SHAFFER,  
Administrator.

[F.R. Doc. 70-15048; Filed, Nov. 6, 1970; 8:48 a.m.]