Title 14—AERONAUTICS AND SPACE

Chapter I—Federal Aviation Administration, Department of Transportation

[Docket No. 9486, Amdt. 21-36, 37-26, 121-72, 127-23, 135-22, 145-13]

PART 21—CERTIFICATION PROCE-DURES FOR PRODUCTS AND PARTS

PART 37—TECHNICAL STANDARD ORDER AUTHORIZATIONS

PART 121—CERTIFICATION AND OP-ERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

PART 127—CERTIFICATION AND OP-ERATIONS OF SCHEDULED AIR CAR-RIERS WITH HELICOPTERS

PART 135—AIR TAXI OPERATORS AND COMMERCIAL OPERATORS OF SMALL AIRCRAFT

PART 145—REPAIR STATIONS

Reporting Requirements for Manufacturers; Failures, Malfunctions, and Defects

The purpose of these amendments to the Federal Aviation Regulations is to clarify and relax the reporting requirements for manufacturers and to revoke the amendments to Parts 21, 37, 121, 127, 135, and 145 of the Federal Aviation Regulations contained in Amendments 21-29, 37-19, 121-58, 127-15, 135-15, and 145-9 published in the Federal Resister on February 19, 1970 (35 F.R. 3154).

Amendments 21–29, 37–19, 121–58, 127–15, 135–15, and 145–9, effective April 2, 1970, require certain manufacturers to notify the FAA of any failure, malfunction, or defect in any product or part manufactured by them that could result in a hazard to flight. The effective date of those amendments was later extended to November 30, 1970, by Amendments 21–35, 37–25, 121–68, 127–20, 135–21, and 145–12 (35 F.R. 15283). Subsequently, however, it has come to the attention of the FAA that the reporting requirements are, in some instances, ambiguous and in certain areas may require duplicate reporting. Since Amendments 21–29, 37–19, 121–58, 127–15, 135–15, and 145–9 do not become effective until November 30, 1970, the FAA considers it appropriate to clarify the regulations containing the reporting requirements for manufacturers and to remove any

requirement that could result in duplicate reporting before those regulations become effective. These changes are discussed hereinafter.

The requirements of §§ 21.3 and 37.17 require a holder of a type certificate (including a supplemental type certificate) or a Parts Manufacturer Approval (PMA), or a TSO authorization, or the licensee of a type certificate, to notify the FAA within 24 hours after it discovers or is informed of a failure, maifunction, or defect in any product or part manufactured by it, of any such failure, malfunction, or defect that could result in a hazard to flight. Several interested persons have recently advised the FAA that this requirement is ambiguous, since any failure, malfunction, or defect, including the failure of a single rivet, could result in a hazard to flight. Thus they contend, the manufacturers would have to report all failures, malfunctions, and defects. The FAA is aware that this would defeat the purpose of the regula-tion. Therefore, it is considered appropriate to clarify the regulation by listing the particular occurrences which constitute a hazard to flight for the purpose of reporting requirements and by requiring the reporting of a failure, malfunction, or defect only after it has been determined that such failure, malfunction, or defect has resulted in any of the listed hazards to flight. The require-ments of §§ 21.3 and 37.17 have also been revised to make it clear that where a manufacturer determines that there is a defect in any product, part or article that it manufactures that would result in any of the listed hazards to flight, the manufacturer need only report the defect if any of the defective products, parts or articles have left its quality

control system.

The FAA is also aware that requiring a manufacturer to report failures, malfunctions and defect. which it "discovers or is informed of" could result in the reporting of unconfirmed occurrences. Such reports would be of no value to the FAA. Therefore, the provisions of §§ 21.3 and 37.17 have been revised so that manufacturers need report only failures, malfunctions, and defects which they have determined have resulted or would result in any of the listed hazards.

In addition to the foregoing, the requirements of \$\$ 21.3 and 37.17 have been relaxed to make them consistent with similar reporting requirements in the operating rules. In this connection, special late reporting provisions have been added covering reports that would be due on Saturday, Sunday, or a holiday.

Finally, the regulation has been revised to eliminate additional areas where duplicate reporting could occur. Thus, reports need not be made of any failure. malfunction, or defect that the manufacturer knows has already been reported by another person under the Federal Aviation Regulations or that the manufacturer has already reported to the National Transportation Safety Board. Moreover, the FAA is not interested in a manufacturer's report on any failure, malfunction, or defect that is caused by improper maintenance or improper usage.

These amendments contain clarifications and relaxations of the rules that were adopted to become effective on November 30, 1970. They have been coordinated with representatives of the industry to the extent possible. However, in view of the imminent effective date of Amendments Nos. 21-29, 37-19, 121-58, 127-15, 135-15, and 145-9, further notice and public procedure hereon is impracticable and good cause exists for making them effective on less than 30 days' notice.

In consideration of the foregoing:

1. The amendments to Parts 21, 37, 121, 127, 135, and 145 of the Federal Aviation Regulations contained in Amendments 21-29, 37-19, 121-58, 127-15, 135-15, and 145-9 and published in the Federal Register on February 19, 1970 (35 F.R. 3154) and Amendments 21-30, 37-20, 121-59, 127-16, 135-16, and 145-10 published in the Federal Register on March 31, 1970 (35 F.R. 5319) and Amendments 21-33, 37-22, 121-63, 127-18, 135-19, and 145-11, published in the Federal Register on July 1, 1970 (35 F.R. 10653) and Amendments 21-35, 37-25, 121-68, 127-20, 135-21, and 145-12, published in the Federal Register on October 1, 1970 (35 F.R. 15288) are hereby revoked effective November 30, 1970; and

2. Parts 21, 37, 121, 127, 135, and 145 of the Federal Aviation Regulations are amended, effective November 30, 1970, as follows:

A. Part 21 is amended by adding a new § 21.3 to read as follows:

§ 21.3 Reporting of failures, malfunctions, and defects.

(a) Except as provided in paragraph (d) of this section, the holder of a Type Certificate (including a Supplemental Type Certificate), or a Parts Manufacturer Approval (PMA), or the licensee of a Type Certificate shall report any failure, malfunction, or defect in any product or part manufactured by it that it determines has resulted in any of the occurrences listed in paragraph (c) of this section.

(b) The holder of a Type Certificate (including a Supplemental Type Certificate), or a Parts Manufacturer Approval (PMA), or the licensee of a Type Certificate shall report any defect in any product or part manufactured by it that

has left its quality control system and that it determines could result in any of the occurrences listed in paragraph (c) of this section.

(c) The following occurrences must be reported as provided in paragraphs (a) and (b) of this section:

(1) Fires caused by a system or equipment failure, malfunction, or defect.

(2) An engine exhaust system failure. malfunction, or defect which causes damage to the engine, adjacent aircraft structure, equipment, or components.

(3) The accumulation or circulation

of toxic or noxious gases in the crew compartment or passenger cabin.

(4) A malfunction, failure, or defect of a propeller control system.

(5) A propeller or rotorcraft hub or blade structural failure.

(6) Flammable fluid leakage in areas where an ignition source normally exists.

(7) A brake system failure caused by structural or material failure during operation.

(8) A significant aircraft primary structural defect or failure caused by any autogenous condition (fatigue, understrength, corrosion, etc.).

(9) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure.

(10) An engine failure.
(11) Any structural or flight control system malfunction, defect, or failure which causes an interference with normal control of the aircraft or which derogates the flying qualities.

(12) A complete loss of more than one electrical power generating system or hydraulic power system during a given

operation of the aircraft.

(13) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

(d) The requirements of paragraph
(a) of this section do not apply to—

- (1) Failures, malfunctions or defects that the holder of a Type Certificate (including a Supplemental Type Certificate), or Parts Manufacturer (Approval) (PMA), or the licensee of a Type Certificate
- (i) determines were caused by improper maintenance, or improper usage;

(ii) knows were reported to the FAA by another person under the Federal

Aviation Regulations; or

(iii) has already reported under the accident reporting provisions of Part 430 of the regulations of the National Trans-portation Safety Board.

(2) Failures, malfunctions or defects in products or parts manufactured by a foreign manufacturer under a U.S. Type Certificate issued under § 21.29 or ex-ported to the U.S. under § 21.502.

(e) Each report required by

section-

(1) Shall be made to the FAA Regional Office in the region in which the person required to make the report is located within 24 hours after it has determined that the failure, malfunction,

or defect required to be reported has occurred. However, a report that is due on a Saturday or a Sunday may be delivered on the following Monday and one that is due on a holiday may be delivered on the next workday:

(2) Shall be transmitted in a manner and form acceptable to the Administrator and by the most expeditious method available; and

(3) Shall include as much of the following information as is available and

applicable:

(i) Aircraft serial number. (ii) When the failure, malfunction, or defect is associated with an engine or propeller, the engine or propeller serial number, as appropriate.

(iii) Product model.

- (iv) Identification of the part, component, or system involved. The identification must include the part number.
- (v) Nature of the failure, malfunction, or defect.
- B. Part 37 is amended by amending § 37.17 to read as follows:

§ 37.17 Reporting of failures, malfunctions, and defects.

(a) Except as provided in paragraph (d) of this section, each manufacturer holding a TSO authorization under this

Part, shall report any failure, malfunction or defect in any article manufac-tured by it that it determines has resulted in any of the occurrences listed in paragraph (c) of this section.

(b) Each manufacturer holding a TSO authorization under this Part shall report any defect in any article manufac-tured by it that has left its quality control system and that it determines could result in any of the occurrences listed in paragraph (c) of this section.

(c) The following occurrences must be reported as provided in paragraphs (a) and (b) of this section:

(1) Fires caused by a system or equipment failure, malfunction, or defect

(2) An engine exhaust system failure, malfunction, or defect which causes damage to the engine, adjacent aircraft structure, equipment, or components.

(3) The accumulation or circulation

of toxic or noxious gases in the crew compartment or passenger cabin.

(4) A malfunction, failure, or defect of a propeller control system.

(5) A propeller or rotorcraft hub or

blade structural failure.

(6) Flammable fluid leakage in areas where an ignition source normally exists.

(7) A brake system failure caused by structural or material failure during operation.

(8) A sigificant aircraft primary structural defect or failure caused by any autogenous condition (fatigue, understrength, corrosion, etc.).

(9) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure.

(10) An engine failure.

(11) Any structural or flight control system malfunction, defect, or failure, which causes interference with normal control of the aircraft or which derogates the flying qualities.

(12) A complete loss of more than one electrical power generating system of hydraulic power system during a given

operation of the aircraft.

(13) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

(d) The requirements of paragraph
(a) of this section do not apply to—

(1) Failures, malfunctions, and defects that the holder of a TSO authorization-

(i) Determines were caused by improper maintenance or improper usage;

(ii) Knows were reported to the FAA by another person under the Federal Aviation Regulations; or

(iii) Has already reported under the accident reporting provisions of Part 430 of the regulations of the National Transportation Safety Board.

(2) Failures, malfunctions, or defects in articles manufactured by a foreign manufacturer and exported to the United States under § 21.502 of this chapter.

(e) Each report required by this

section-

(1) Shall be made to the FAA Regional Office in which the holder is located within 24 hours after the holder has determined that the failure, malfunction, or defect required to be reported has occurred, except that a report due on a Saturday or a Sunday may be delivered on the following Monday and one that is due on a holiday may be delivered on the next workday:

(2) Shall be transmitted in a manner and form acceptable to the Adminis-trator by the most expeditious method

available, and

(3) Shall include as much of the following information on the article as is available and applicable:

(i) Aircraft serial number. (ii) Article serial number.

(iii) Article model designation.

(iv) Identification of the part, component, or system involved. The identification must include the part number.

(v) Nature of the failure, malfunction, or defect.

(f) Whenever the investigation of an accident or service difficulty report shows that an article manufactured under a TSO authorization is unsafe because of a manufacturing or design defect, the manufacturer shall, upon the request of the Administrator, report to the Administrator the results of his investigation and any action, taken or proposed by the manufacturer to correct that defect. If action is required to correct the defect in existing articles, the manufacturer shall submit to the Chief, Engineering and Manufacturing Branch (in the case of the Western Region, the Chief, Aircraft Engineering Division). FAA

Regional Office in the region in which he is located, the data necessary for the issue of an appropriate airworthiness directive.

C. Part 121 is amended by amending paragraph (f) of § 121.703 to read as follows:

§ 121.703 Mechanical reliability reports.

(f) A certificate holder that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a TSO authorization, or that is the licensee of a Type Certificate, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under § 21.3 of this chapter or § 37.17 of this chapter or under the accident reporting provisions of Part 430 of the regulations of the National Transportation Safety Board.

D. Part 127 is amended by amending paragraph (f) of § 127.313 to read as follows:

§ 127.313 Mechanical reliability reports.

(f) An air carrier that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a TSO authorization, or that is the licensee of a Type Certificate, need not report a failure, malfunction, or defect, under this section if the failure, maifunction

or defect has been reported by it under § 21.3 of this chapter or § 37.17 of this chapter or under the accident reporting provisions of Part 430 of the regulations of the National Transportation Safety Board.

E. Part 135 is amended by amending paragraph (f) of § 135.57 to read as follows:

§ 135.57 Mechanical reliability reports.

(f) A certificate holder, that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a TSO authorization, or that is the licensee of a Type Certificate need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under \$21.3 of this chapter or \$37.17 of this chapter or under the accident reporting provisions of Part 430 of the National Transportation Safety Board.

F. Fart 145 is amended by adding a paragraph (c) to \$145.63 to read as follows:

§ 145.63 Reports of defects or unairworthy conditions.

(c) The holder of a domestic repair station certificate that is also the holder of a Part 121, 127, or 135 of this chapter certificate, a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or

a TSO authorization, or that is the licensee of a Type Certificate, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it, under § 21.3, § 37.17, § 121.703, § 127.313, or § 135.57 of this chapter.

G. Section 145.79 is amended by adding a paragraph (d) to read as follows:

§ 145.79 Records and reports.

(d) The holder of a foreign repair station certificate that is also the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a TSO authorization or that is the licensee of a Type Certificate need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it, under § 21.3 of this chapter or § 37.17 of this chapter.

(Secs. 313(a), 601, 603, 604, 607, Federal Aviation Act of 1958, 49 U.S.C. 1354(a), 1421, 1423, 1424, and 1427, sec. 6(c), Department of Transportation Act, 49 U.S.C. 1655(c))

Note: The reporting and/or recordkeeping requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

Issued in Washington, D.C., on November 24, 1970.

J. H. Shaffer, Administrator.

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