## **CIVIL AERONAUTICS MANUAL 42**

## U. S. Department of Commerce

**Civil Aeronautics Administration** 

Civil Aeronautics Manuals and supplements thereto are issued by the Office of Aviation Safety, Civil Aeronautics Administration, for the guidance of the public and are published in the Federal Register and the Code of Federal Regulations.

Supplement No. 9

July 17, 1956

SUBJECT: Revisions to Civil Aeronautics Manual 42 dated August 1954.

This supplement is issued to provide subscribers of CAM 42 with a change in policies with respect to the maintenance and inspection of small aircraft. The inspection and maintenance requirements and standards are contained in Civil Aeronautics Manuals 18 and 43. This supplement shall become effective July 17, 1956.

Note: New or revised material is indicated by brackets [ ].

INK REVISION:

Delete Section 42.31-2 from table of contents.

Remove and destroy the following pages:

21 and 22

Insert in lieu thereof the following pages:

21 and 22

For William B. Davis
Director,
Office of Aviation Safety

Attachment

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ع<del>د</del> پ pliance with Airworthiness Directives and manufacturers' service bulletins.

(g) Small aircraft must be maintained in accordance with the provisions of the applicable regulations in this subchapter (i. e. the Civil Air Regulations) and the manufacturer's recommendations. No aircraft will be dispatched on any flight during which the aircraft may exceed any prescribed maintenance time limitations.

(Published in 14 F. R. 7035, November 22, 1949, effective upon publication.)

"42.31 Inspections and maintenance.

"(a) Aircraft shall be given a preflight check to determine compliance with section 42.51 (e) and, in addition, shall meet the following requirements:

"(1) Large aircraft shall be maintained and inspected in accordance with a continuous maintenance and inspection system as provided for in the maintenance manual.

**L**"(2) Small aircraft shall be inspected in accordance with the inspection provisions of Part 43 of this chapter.

"(b) A record shall be carried in the aircraft at all times showing that the latest inspections required by paragraph (a) of this section have been accomplished, except such record may be kept at the principal operations base when the aircraft is maintained and inspected as provided in paragraph (a) (1) of this section."

42.31-1 Inspection and maintenance-large aircraft (CAA policies which apply to sec. 42.31 (a)(1)). A continuous maintenance and inspection system is one in which a prescribed schedule of maintenance and inspection functions is set forth in the maintenance manual approved by Administrator. The schedules of maintenance functions shall include the overhaul time limitations and inspection program including time limitations which are considered adequate by the Administrator to maintain the aircraft in a continuously airworthy condition.

(Published in 14 F. R. 7036, November 22, 1949, effective upon publication.)

## [42.31-2 Deleted.]

[(Published in 21 F. R., May 15, 1956, effective July 17, 1956.)]

42.31-3 Deleted.

(Rev. 7/17/56)

(Published in 19 F. R. 6829, October 23, 1954, effective upon publication.)

42.31-4 Maintenance and inspection records (CAA policies which apply to sec. 42.31 (b)). The record required in this paragraph may consist of the aircraft log book if it is so arranged as to provide full information on the maintenance work performed on the aircraft. In case the aircraft is maintained under a continuous maintenance and inspection system, the maintenance records which are utilized in such system may be considered as complying with this requirement; however, all such reccords shall be complete and shall properly identify the aircraft, aircraft time, and the extent of maintenance work or inspections performed. When maintenance or inspection functions are performed away from their principal maintenance base, a copy of the record of maintenance or inspections performed shall be retained in the aircraft and a copy promptly mailed to the principal maintenance base.

(Published in 14 F. R. 7036, November 22, 1949, effective upon publication; amended in 15 F. R. 3151, May 25, 1950, effective upon publication.)

"42.32 Additional maintenance requirements for large aircraft. The following requirements are applicable to operations conducted in large aircraft:

"(a) <u>Facilities</u>. Facilities for the proper inspection, maintenance, overhaul, and repair of the types of aircraft used shall be maintained by the air carrier, unless arrangements acceptable to the Administrator are made with other persons possessing such facilities.

"(b) Maintenance personnel. A staff of qualified mechanics, inspectors, and appropriate supervisory personnel shall be employed by the air carrier and kept available for performing the functions specified in section 42.30, except where the air carrier has obtained the approval of the Administrator for the performance of such functions by some other person. The air carrier shall permit maintenance to be performed only by an individual competent therefor.

"(c) Reporting of mechanical irregularities occurring in operation. Each air carrier shall prescribe in its operations manual a procedure for the submission of written re-

ports by the members of the flight crew for all mechanical irregularities occurring during the operation of the aircraft. The members of the flight crew designated by the air carrier shall submit a written report in accordance with such system to the person responsible for the maintenance of the aircraft. This report shall be submitted at the end of each through flight or sooner if the seriousness of the irregularity so warrants. Such report or copy thereof indicating the action taken shall be retained in the aircraft for the information of the next flight crew.6

"(d) Maintenance manual.

"(1) The air carrier shall prepare and maintain for the use and guidance of maintenance personnel a maintenance manual which contains full information pertaining to the maintenance, repair, and inspection of aircraft and equipment and clearly outlines the duties and the responsibilities of maintenance personnel. The form and content shall be acceptable to the Administrator. It shall contain a copy of the approved time limitations for inspection and overhauling of aircraft, aircraft engines, propellers, and appliances. Copies and revisions shall be furnished to all persons designated by the Administrator. All copies in the hands of company personnel shall be kept up to date.

- "(2) A copy of those portions pertaining to the aircraft shall be carried therein.
- "(3) Any changes prescribed by the Administrator in the interest of safety shall be promptly incorporated in the manual. Other changes not inconsistent with any Federal regulation, the air carrier operating certifi-

"<sup>6</sup>See section 42.96 for the requirements for reporting aircraft or component malfunctioning and defects."

cate, or safe operating practices may be made without prior approval of the Administrator.

"(4) No maintenance, repair, or inspection of aircraft or equipment shall be made by the air carrier contrary to the provisions of the maintenance manual."

42.32-1 Facilities for the proper inspection, maintenance, overhaul, and repair (CAA policies which apply to sec. 42.32). (a) The facilities required in section 42.32 (a) of this subchapter include housing, work space, equipment, supplies, materials, tools, parts, and aircraft components in sufficient quantity and quality to assure that the needed inspection, maintenance, overhaul, and repair of the air carrier's or commercial operator's aircraft (including airframes, powerplants, propellers, and appliances) can be satisfactorily performed at all times by either the air carrier, or commercial operator, or persons with whom arrangements have been made for the performance of such functions.

(b) Sections 52.21-1 through 52.21-3 and sections 52.30-1 through 52.36-1 of this subchapter, outline housing, facilities, equipment and materials which constitute criteria that may be used to determine the minimum facilities required by section 42.32(a) insofar as applicable and appropriate to the air carrier's aircraft and maintenance system: Provided, That a work dock is used for the performance of airframe maintenance in lieu of a permanent hanger, if such work dock is appropriate for the proper performance of such maintenance under the climatic conditions which prevail at the particular maintenance location. When necessary, the entire airframe or portion thereof on which work is being performed should be enclosed so as to exclude rain, snow, dust, and provide reasonable protection to workers from the extremes of temperature which might impair the work being performed.