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CIVIL AERONAUTICS MANUAL 8 *C. S. Library*

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Civil Aeronautics Administration

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Supplement No. 1

February 15, 1951

Subject: Revisions to CAM 8

When Civil Aeronautics Manual 8 was printed, a portion of 8.30-1 was inadvertently omitted. The purpose of this supplement is to provide holders of CAM 8 with corrected pages.

REMOVE AND DESTROY THE FOLLOWING PAGES:

INSERT IN LIEU THEREOF THE FOLLOWING PAGES:

8.30 and on the back 8.31

8.30-1(b) (1) (iii) and on the back 8.30-1(b) (1) (iii)

8.34-1(c)

8.34-1(b) and on the back 8.34-1(c)

INK REVISIONS:

The following ink revisions should be made in CAM 8 dated January 1, 1951:

Introductory Note, paragraph 4 - Delete the sentence "Copies of this appendix may be obtained from the CAA."

8.10-3(d) (3) - Reference to "paragraph (d)" should be changed to "paragraph (e)."

Office of Aviation Safety

E. S. HENSLEY, Director

DAMI #01234).

It is the owner's responsibility to determine that the inspection and recording of the inspection have been made prior to carrying passengers for compensation or hire.

(f) *Repairs and alterations to aircraft issued multiple airworthiness certificates.* (1) All repairs and/or alterations to the standard configuration portion of the aircraft, including powerplant and propeller, must be accomplished in accordance with Part 18 and the Administrator's policies and interpretations in CAM 18.

(2) All major repairs and/or alterations to aircraft certificated in multiple airworthiness classifications must be examined, inspected, and approved in accordance with § 18.11.

(3) Repairs and/or alterations to any part of the removable equipment, not included in the aircraft in the standard configuration, may be handled in accordance with § 8.20-3.

(g) *Application of airworthiness directives.* Compliance with airworthiness directives issued by the CAA for the standard (passenger-carrying) category aircraft will be mandatory for all aircraft certificated in the multiple airworthiness classification, without regard to the category in which the aircraft is being operated.

§ 8.30 *Operating limitations—Administrator's authority to prescribe.* In addition to the operating limitations set forth in §§ 8.31 through 8.34, the Administrator shall prescribe such operating limitations and restrictions as he finds necessary for safe operation of the aircraft and for the protection of the public.¹

¹ Where the special purpose operations require deviation from the Air Traffic Rules in Part 60 of this chapter, a waiver of such rules must be obtained from the Administrator in accordance with the provisions of Part 60.

§ 8.30-1 *Operating limitations (CAA policies which apply to § 8.30)—(a) Form ACA-309.* The special purpose operations authorized for the aircraft and the operating limitations prescribed in § 8.30 will be listed on CAA Form ACA-309, which is entitled "Operation

Limitations." The operating limitations prescribed in §§ 8.31 through 8.34 will also be listed in that portion of Form ACA-309, entitled "Limitations." The Form ACA-309 will be issued by the CAA representative at the time he issues the airworthiness certificate as specified in § 8.20-1. The Form ACA-309 must be carried in the aircraft in accordance with § 43.10 (b) (1).

(b) *Agricultural aircraft.* The example of operating limitations given in subparagraph (1) of this paragraph, indicates the scope of the operating limitations which may be listed under "Limitations" on Form ACA-309 for an aircraft certificated under Part 8 and intended for agricultural operations, such as spraying, dusting, seeding, and pest control. The CAA representative may modify these or prescribe additional aircraft limitations if he finds they are necessary for the safe operation of the aircraft and protection of the public.

(1) *Example of operating limitations.* This aircraft has been certificated under the provisions of Part 8 as a special purpose agricultural and pest control aircraft.

(i) This aircraft shall not be operated in any manner which will endanger public life and property. The operator shall adjust the take-off weight to provide a safe margin of performance for the existing operating conditions, considering the take-off area, altitude, temperature, and terrain. For maximum capacities of hoppers and spray tanks see placards.

NOTE: These placards may be revised in accordance with § 8.10-4 (b).

(ii) Maneuvers shall be limited to those normally performed in agricultural operations.

(iii) Agricultural and pest control operations shall not be conducted over densely populated areas, in congested air lanes, or in the vicinity of busy airports where passenger transport operations are being conducted, unless the Administrator finds it in the public interest to authorize such operation and has issued a Certificate of Waiver or Authorization, Form ACA-663, permitting

such operation.

(iv) Persons and cargo shall not be carried for compensation or hire.

(v) Persons other than the minimum crew necessary for the agricultural operations shall not be carried during these operations.

(vi) No person shall be carried in the aircraft unless a seat and safety belt, installed in accordance with good aeronautical practice, is provided for his use.

(2) *Examples of additional limitations.* Examples of additional limitations which the CAA representative may prescribe for safe operation and the protection of the public are:

(i) A prohibition against sulphur dusting, unless special fire prevention measures have been incorporated in the aircraft.

(ii) A statement in the area operating limitations (subparagraph (1) (iii) of this paragraph) that the aircraft is not eligible for a waiver to operate over congested areas because of uncertificated powerplant components. (See § 8.10-4 (d)).

(iii) Restricted engine speed (rpm) ranges, if a metal propeller stress survey indicates the need for such restrictions.

(c) *Aerial advertising aircraft.* For special purpose operations such as banner towing, skywriting, and similar operations normally conducted over populated areas, aircraft limitations, such as weight, airspeed and engine limits, will be prescribed and will be essentially the same as those established under the airworthiness requirements for the basic type, unless the nature of the special purpose operations or the design of the basic aircraft or the modifications indicate that a particular limitation should be altered. (See § 8.10-5.)

§ 8.31 *Area operating limitations.* Special purpose operations in restricted category aircraft shall not be conducted over densely populated areas, in congested air lanes, or in the vicinity of busy airports where passenger transport operations are being conducted, unless the Administrator finds it in the public interest to allow operations in such area, in which case he shall prescribe

specific operating limitations to provide the highest degree of public safety compatible with the type of operation involved.

§ 8.31-1 *Waiver of area operation limitations (CAA policies which apply to § 8.31)—(a) Application.* If an operator desires to conduct special purpose operations in the areas described in § 8.31, using a restricted category aircraft, he should submit to the local aviation safety district office an Application for a Certificate of Waiver, Form ACA-400, requesting that the area limitations, as set forth in § 8.31, be waived for the type of operation involved. The aircraft Operation Limitations Form ACA-309 should also be submitted for examination.

If there is any question as to what constitutes a densely populated area, congested air lane or busy airport, it is suggested that the operator contact the local aviation safety district office for a determination.

The same application may be used for requesting waiver of § 60.17 (b) of this chapter for operation below the minimum altitudes specified in that section for congested areas.

(b) *Certificate of waiver or authorization.* After examining the application and the aircraft operation limitations, the CAA will issue a Certificate of Waiver or Authorization, Form ACA-663, where it is found in the public interest to allow the proposed operations. Where the operation conflicts with any state law or local ordinance or requires permission of local authorities or property owners, it is the responsibility of the operator to obtain such permission. The certificate may include special provisions considered necessary to provide the highest degree of safety compatible with the special purpose involved.

§ 8.32 *Economic operating limitations.* Persons and cargo shall not be carried for compensation or hire in restricted category aircraft. For purposes of this section crop dusting, seeding, and other similar specialized operations, including the carriage of materials necessary for such operations, shall not be considered as the carriage of persons or cargo for compensation or hire.

§ 8.32-1 *Economic operating limitations (CAA interpretations which apply to § 8.32)*. Under the provisions of § 8.32 restricted category aircraft are not permitted to carry passengers or cargo for hire. This section does not prohibit the non-revenue carriage of personnel in addition to crew members from one location to the other; provided, the aircraft does not engage in special purpose operations during the flight. (See § 8.33.) For example, an operator might fly his ground-crew to a location where special operations are to be conducted. The carriage of such persons, their personal luggage, and spare parts would not be considered as the carriage of passengers or cargo for hire or compensation. When such persons are carried, they should have available seats and safety belts, installed in the aircraft in accordance with good aeronautical practice.

§ 8.33 *Passengers prohibited during special purpose operations*. Persons, other than the minimum crew necessary for the purpose involved, shall not be carried during special purpose operations in restricted category aircraft.

§ 8.33-1 *Passengers prohibited during special purpose operations (CAA interpretations which apply to § 8.33)*. The minimum crew specified in § 8.33 includes those persons necessary to navigate the aircraft, such as pilot, co-pilot, and flight engineer, and such other persons as may be required to perform the special purpose operations. For example, a multi-engine aircraft engaged in an agricultural operation of dispersing poison bran might be navigated by a pilot and co-pilot, and also have as part of its crew persons engaged in the dispersing of the bran. All of these persons would be considered crew members since each has a specific job to perform in connection with the special purpose operation. Persons other than crew members are not permitted to be carried during special purpose operations. A pilot or other crew member who is being given training in the special purpose operations may be considered an essential crew member. However, no

charge may be made for such training in aircraft certificated under Part 8, because of the economic operating limitations prescribed in § 8.32.

§ 8.34 *Separate operating limitations for multiple airworthiness certification*. In case of multiple airworthiness certification under the provisions of § 8.21, the Administrator shall establish separate operating limitations for each category and shall specify the approved changes necessary to convert and reconvert the aircraft from one category to another.

§ 8.34-1 *Operating limitations for multiple airworthiness certification (CAA policies which apply to § 8.34)*—
(a) *Form ACA-309*. The operating limitations referred to in § 8.34 will be established by the CAA representative at the time he issues the airworthiness certificate as specified in § 8.21-1 (d). These operating limitations will be listed on CAA Form ACA-309, "Operation Limitations", under two headings as follows:

(1) The operating limitations for the standard configuration (i. e. categories other than restricted category) will be listed in the appropriate spaces on the Form ACA-309, or, if applicable, in the CAA approved airplane flight manual.

(2) The operating limitations for the restricted category operations will be listed on Form ACA-309 under "Limitations." These limitations will be designated as applicable to the restricted category and will be prescribed in accordance with § 8.30-1. Provisions will also be included covering the conversion of the aircraft from one category to another (see § 8.21-1 (c) (2)), and inspection of the aircraft prior to the carriage of passengers for hire. (See § 8.21-1 (e) (2)).

(b) *Conversion instructions*. The approved changes necessary to convert the aircraft from one category to the other as specified in § 8.21-1 (c) (2), will be attached to and are considered part of the operating limitations and should not be changed or amended without approval by the CAA.

(c) *Owner's responsibility.* It will be the responsibility of the aircraft owner to keep the operating limitations available in the aircraft in accordance with § 43.10 (b) (1) of this chapter, and to assure that the changes necessary to convert from one category to the other are made in accordance with the approved instructions.

The CAA supplementary material shall become effective January 1 1951.