Federal Aviation Agency
Washington, D.C.

Civil Aeronautics Manual 43

General Operation Rules

Supplement No. 1, CAM 43 dated September 1959 — Sept. 1, 1960

SUBJECT: Revisions to CAM 43.

This supplement is issued to incorporate into CAM 43 Civil Air Regulations Amendment 43–12, Special Civil Air Regulation SR–425B, and Amendment No. 1 to Special Civil Air Regulation SR–389B which was omitted inadvertently when the manual was last printed.

With the discontinuance of the distribution of individual amendments to the Civil Air Regulations, it is believed that the preamble material contained in the amendments should be reproduced in the manuals. Therefore, this supplement incorporates into CAM 43 the *preambles* of all amendments to Part 43 of the Civil Air Regulations issued since the part was last revised effective October 1, 1954, and published in the Federal Register as a complete document on October 2, 1954. In addition to the preamble, the date of adoption, the effective date, Federal Register citation, and the sections affected are given for each amendment.

These preambles are set up as an addendum to CAM 43 and the page numbers are prefixed with the letter "P." It is recommended that these pages be retained in the back of the current CAM 43. Additional pages will be added as amendments to Part 43 are issued.

New or revised material is enclosed in black brackets on the pages submitted with this supplement. However, because Special Civil Air Regulation SR–425B, Amendment 1 to Special Civil Air Regulation SR–389B, and the addendum containing the preambles to amendments to Part 43 are new in their entirety they are not so marked.

Remove the following pages:	*Insert the following new pages:*
III and IV	III and IV
9 and 10	9 and 10
	24–1
73	73 through 83
	Addendum, pages P–1 through P–11

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ATTACHMENTS.

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43.46–3 *Certificate conditions* (*FAA policies which apply to sec. 43.46*). A Certificate of Waiver or Authorization for towing objects by aircraft will be issued subject to the following conditions and limitations:

(a) *Operations authorized.* Operations will be limited to those specified on the certificate. No authorization will be issued unless the operation:

(1) Will not create a hazard to other air traffic, or persons or property on the ground.

(2) In a control zone, can be controlled by air traffic control, or other air traffic can be advised of the operation.

(3) On airways, or in the vicinity of busy airports, can be made known to affected air traffic.

(4) Can be conducted in accordance with such special provisions which the approving agent deems necessary.

(b) *Duration.* The certificate will contain an expiration date which will allow ample time to complete the operation, but may be surrendered by the holder or cancelled by the Administrator at any time.

(c) *Special provisions.* The certificate will contain such special provisions as the approving agent may deem necessary in the interest of safety. *Examples illustrating such provisions are:*

(1) A thorough inspection of the aircraft, engine, and special equipment shall be made prior to each day's operations.

(2) A planned course of action shall be followed with emphasis on selection of available emergency landing areas.

(3) A capable and experienced pilot holding at least a commercial rating will be used.

(4) Air traffic control and appropriate officials of the community shall be notified prior to beginning operations.

(5) Any other specific precaution the agent may assign.

(Published in 18 F.R. 6872, Oct. 31, 1953, effective Nov. 25, 1953.)

43.47 *Dropping objects or persons.*

(a) No person piloting an aircraft shall permit any object to be dropped from such aircraft in flight which creates a hazard to persons or property.

Note: **This rule prohibits neither aerial application operations, such as seeding, spraying or dusting, nor the dropping of newspapers, periodicals, circulars, or objects of any other kind, provided reasonable precautions are taken to avoid injury or damage to persons or property.**

(b) No person piloting an aircraft shall permit a parachute jump to be made from such aircraft over congested areas of cities, towns, or settlements, or an open air assembly of persons except in an emergency or except under the terms of an authorization issued by the Administrator.

43.48 *Aerobatic flight.* No pilot shall intentionally fly an aircraft in aerobatic flight carrying passengers unless all occupants are equipped with approved parachutes.

43.48–1 *Aerobatic flight* (*FAA interpretations which apply to sec. 43.48*). Aerobatic flight, insofar as it concerns the wearing of parachutes, must be deemed to exist when any maneuver intentionally performed results in the following:

(a) A bank in excess of 60° relative to the horizon, or

(b) A nose up or nose down attitude in excess of 30° relative to the horizon.

An example of the application of this interpretation is that parachutes are not required when stalls, lazy eights, etc., are performed within these limits, while these same maneuvers performed with attitudes in excess of the limits would require the wearing of parachutes. Stalls as practiced for the private pilot flight test normally would not exceed the prescribed limits.

Consideration must be given to the fact that these limits are not intended to insure that all maneuvers which could be performed within them are also within the safe operating limits of the aircraft. It is reasonably certain that a prolonged full power descent in a nose down attitude of less than 30° would exceed placarded speeds, and that sudden full application of elevators at cruising speed could produce stresses sufficient to cause structural failure.

This interpretation is intended only to define the circumstances under which parachutes must be worn in accordance with section 43.48, and does not in any way modify the definition of

aerobatic flight as it applies to other sections of the Civil Air Regulations.

(Published in 15 F.R. 5843, Aug. 30, 1950, effective Aug. 30, 1950.)

43.49 *Parachutes.* No pilot shall carry on an aircraft a parachute which is available for emergency use unless:

(a) It is an approved chair-type (canopy in back) parachute which has been packed by a qualified parachute rigger within the preceding 120 days; or

(b) It is an approved-type, other than a chair-type (canopy in back) parachute which has been packed by a qualified parachute rigger within the preceding 60 days.

43.50 *Transportation of explosives and other dangerous articles.* No person piloting an aircraft shall permit explosives or other dangerous articles such as inflammable liquids or solids, oxidizing material, corrosive liquid, inflammable or noninflammable compressed gas, poison gas or liquid, poisonous liquid or solid, or tear gas to be carried in aircraft, except as provided for in Part 49 of this subchapter. Small arms ammunition for personal use, necessary aircraft signaling devices, and equipment necessary to safe operation of the aircraft are permitted.

43.51 *Fuel supply.* Aircraft operated under IFR conditions shall carry sufficient fuel, considering weather reports and forecasts of wind and other weather conditions, to complete the flight to the point of first intended landing, to fly from there to the alternate airport, and to fly thereafter for 45 minutes at normal cruising speed.

Student Pilot Limitations

43.52 *General limitations.* No student pilot shall pilot an aircraft carrying a passenger, or on an international flight, or for compensation or hire, or in furtherance of a business.

43.55 *Aircraft limitations.* [A student shall not pilot an aircraft other than that of the make and model which has been endorsed on his student pilot certificate by a flight instructor.

[(Amendment 43-12, published in 24 F.R. 9418, Nov. 24, 1959, effective Dec. 29, 1959.)]

43.56 *Recent experience.* A student who has not piloted a powered aircraft within 90 days shall not pilot such aircraft in solo flight until he has passed a flight check given by a flight instructor and that fact has been endorsed by such instructor in the student pilot logbook.

Private and Commercial Pilot Privileges and Limitations

43.60 *Private pilot.* A private pilot shall not pilot aircraft for compensation or hire; except that he may pilot aircraft in connection with any business or employment, if the flight is merely incidental thereto and does not involve the carriage of persons or property for compensation or hire, and an aircraft salesman holding a private pilot rating may demonstate aircraft in flight to a prospective purchaser if he has at least 200 hours of flight time credited in accordance with the provisions of this part.

43.61 *Commercial pilot.* A commercial pilot may pilot aircraft for hire. A commercial glider pilot may give flight instruction in gliders.

43.62 *Airline transport pilot.* An airline transport pilot may exercise the privileges of a commercial pilot with an instrument rating.

43.63 *Rating requirements.* A private or commercial pilot shall not serve as pilot in command of an aircraft carrying passengers or operated for remuneration other than in aircraft of the category and class for which he is rated. After May 1, 1953, a private or commercial pilot shall not serve as pilot in command of aircraft exceeding 12,500 pounds maximum certificated weight when carrying passengers or operated for remuneration unless, in addition to proper category and class ratings, he also holds an appropriate type rating. Upon application to the Administrator prior to May 1, 1953, by the

AMENDMENT I TO SPECIAL CIVIL AIR REGULATION NO. SR-389B

Effective: September 11, 1959
Adopted: September 11, 1959

Emergency Exits for Airplanes Carrying Passengers for Hire

Special Civil Air Regulation No. SR-389B, adopted by the Civil Aeronautics Board on December 24, 1958, and effective January 30, 1959, specified in part that no large airplane while carrying passengers for hire shall be operated with occupants in excess of the number permitted by applying the provisions of section 4b.362 (a), (b), and (c) of Part 4b of the Civil Air Regulations as amended by Amendment 4b-5 effective April 9, 1957, except for those airplanes listed in the table in SR-389B. Special Civil Air Regulations SR-389A, which preceded SR-389B, contained a similar provision but referred to Amendment 4b-4 effective December 20, 1951. The effect of SR-389B was to apply the current Part 4b exit requirements referenced in SR-389A.

A review of the history of the development of SR-389B indicates that such retroactive application of current Part 4b requirements was included inadvertently and that it would impose an unnecessary burden on the operators of certain airplanes. SR-389B is therefore being amended to eliminate this retroactive provision.

Since this amendment imposes no additional burden on any person, notice and public procedure hereon are unnecessary, and the amendment is made effective immediately.

In consideration of the foregoing, Paragraph 1 of Special Civil Air Regulation No. SR-389B is hereby amended to read as follows, effective September 11, 1959.

1. Contrary provisions of the Civil Air Regulations notwithstanding, no large airplane (more than 12,500 pounds maximum certificated take-off weight) type certificated under Civil Air Regulations effective prior to April 9, 1957, while carrying passengers for hire, shall be operated with occupants in excess of the number permitted by applying the provisions of section 4b.362 (a), (b), and (c) of Part 4b of Civil Air Regulations as amended by Amendment 4b-4 effective December 20, 1951, except that airplane types listed in the following table may be operated with the listed maximum number of occupants (including all crew members) and the listed corresponding number of exits (including emergency exits and doors) heretofore approved by the Administrator for the emergency egress of passengers.

SPECIAL CIVIL AIR REGULATION NO. SR-425B

Effective: April 7, 1960
Adopted: April 7, 1960

Provisional Certification and Operation of Aircraft

Special Civil Air Regulation No. SR-425A was adopted on July 22, 1958, to provide for provisional certification of turbine-powered transport category airplanes in order to permit certain air carriers and manufacturers to conduct crew training, service testing, and simulated air carrier operations prior to introduction of the airplanes into commercial service. The objective of this regulation was to provide a means whereby the air carriers and manufacturers could obtain as much experience as possible with turbine-powered airplanes which, although safe for flight, had not been approved for the issuance of a type certificate.

Pursuant to the notice of proposed rule making contained in Draft Release 58-23 (24 F.R. 25), notice was given that SR-425A would be amended to extend the application of that regulation to piston as well as turbine-powered transport category aircraft including rotorcraft. The notice also provided that SR-425A would be amended to include personal and executive type aircraft and would permit additional operations such as sales demonstrations and market surveys with aircraft having a provisional type and airworthiness certificate. In substance this proposal provided for the issuance of two classes of provisional type and airworthiness certificates and for amendments to the provisional type certificates. Class I provisional type and airworthiness certificates would be issued for all types of aircraft—turbine or piston—for operation by the manufacturer. Class II provisional type and airworthiness certificates would be limited to transport category aircraft—turbine or piston—but these aircraft could be operated by either the manufacturer or a certificated air carrier. However, the requirements for the issuance of the Class II provisional certificates would be more stringent and the operating limitations would be more confining than those of the Class I provisional certificates.

Comments received from all segments of the aircraft manufacturing and air carrier industries were generally favorable to the basic aim of the regulation. A number of suggestions were made to expand the applicability of the regulation and to eliminate certain of the requirements in the proposal. Certain of the comments expressed the opinion that Class I provisional certificate requirements are unnecessary and that the operations permitted thereunder should be permitted under the authority of an experimental certificate. However, the Agency believes that public safety considerations require that the type of operations permitted under this regulation be conducted in aircraft, the airworthiness of which has been demonstrated beyond that required for experimentally certificated aircraft. In addition, comments received from engine manufacturers suggested that this regulation should permit such manufacturers as well as aircraft manufacturers to obtain provisional type certificates and operate

aircraft under the terms of provisional certificates. This suggestion has been given careful consideration, but the Agency does not feel that it is in a position, at this time, to permit such a substantive change in the provisions of the draft release.

While the basic provisions of the regulation being adopted are substantially the same as those contained in the draft release, some of the changes suggested by the industry have been incorporated into this regulation. For example, the regulation has been expanded to permit helicopters certificated under Class II provisional certificates to be operated by scheduled helicopter air carriers. It further provides that flight time accumulated by a prototype aircraft under the auspices of a United States military service may be counted toward the requirements for a provisional type certificate. In this connection, certain manufacturers of Part 3 airplanes have suggested that the provision requiring a prototype airplane to be flown for at least 50 hours should be reduced to 5 hours. In view of the fact that such time may now be acquired under the auspices of a United States military service as well as under the authority of an experimental certificate, the 50 hours of required flight time will not impose any unnecessary burden upon the manufacturers of Part 3 airplanes.

In addition to the foregoing, the draft release proposed that provisional type certificates would remain in effect for an indefinite period of time unless sooner superseded, revoked, or otherwise terminated by the Administrator. Further analysis indicates that this feature of the proposal would permit the existence for an indefinite period of time of two certificates, type and provisional type, for substantially the same type design aircraft. To preclude such dual type certification, this regulation provides for the expiration of a Class I provisional type certificate 24 months after its issuance or upon the issuance of the corresponding type certificate, whichever occurs first. The regulation provides for the expiration of the Class II provisional type certificate 6 months after its issuance or 60 days after the issuance of the corresponding type certificate, whichever occurs first. Thereafter, manufacturers desiring to make changes to the approved type design may apply for an amendment to the type certificate and, pending approval of the amendment, to obtain a provisional amendment for such changes which would be in effect for 6 months, or until the amendment to the type certificate is approved, whichever occurs first. Aircraft conforming to the provisionally amended type certificate would then be issued provisional airworthiness certificates.

Certain other minor changes of a clarifying nature have also been made after consideration of the comments received. Not all of the suggested changes obtained in the comments on Draft Release No. 58–23 are included in this amendment because they would necessitate an unwarranted delay in its adoption by requiring additional rule making procedures. The Agency has under study amendments to the airworthiness classifications which will take into consideration the various suggestions submitted.

Interested persons have been given an opportunity to participate in the making of this regulation, and due consideration has been given to all relevant matters presented. Since this regulation relaxes a present restriction, it may be made effective on less than 30 days' notice.

SPECIAL CIVIL AIR REGULATION NO. 425C

Effective: June 6, 1961
Adopted: May 31, 1961
Published: June 6, 1961
(26 F.R. 4990)

Provisional Certification and Operation of Aircraft

Special Civil Air Regulation No. SR–425A was adopted on July 22, 1958, to provide for provisional certification of turbine-powered transport category airplanes in order to permit certain air carriers and manufacturers to conduct crew training, service testing, and simulated air carrier operations prior to introduction of the airplanes into commercial service. The objective of this regulation was to provide a means whereby the air carriers and manufacturers could obtain as much experience as possible with turbine-powered airplanes which, although safe for flight, had not been approved for the issuance of a type certificate.

Special Civil Air Regulation No. SR–425B, which superseded SR-425A, was adopted on April 7, 1960, to extend the application of the regulation to: (1) piston-engine transport category aircraft, including rotorcraft; and (2) personal and executive type aircraft, including rotorcraft, irrespective of powerplant type. In addition, this regulation permitted operations such as sales demonstrations and market surveys with aircraft having a provisional type and airworthiness certificate.

To accomplish this, SR–425B provided for, among other things, the issuance of two classes of provisional type and airworthiness certificates. Class I provisional and airworthiness certificates could be issued for all types of aircraft for operation by the aircraft manufacturer. Class II provisional type and airworthiness certificates could be issued only for transport category aircraft, but these aircraft could be operated by either the aircraft manufacturer or a certificated air carrier. In general, the requirements for the issuance of Class I provisional certificates were less stringent, and the operating limitations less confining, than those for the issuance of Class II provisional certificates.

Under the provisions of SR–425B, however, eligibility to apply for Class I provisional certificates was limited to aircraft manufacturers. A recommendation that this eligibility be extended to include engine manufacturers had been evaluated by the Agency prior to the adoption of SR–425B, but rule making action on such extension was deferred until additional experience with provisional certification could be acquired.

Experience accumulated since the adoption of SR–425B has indicated that it would be practicable for engine manufacturers, who have altered a type certificated aircraft by installing type certificated engines of their own manufacture in place of the original engines, to show compliance with the currently effective requirements for issuance of Class I provisional type and provisional airworthiness certificates; and that compliance with these requirements will insure safe operation of provisionally certificated aircraft by such engine manufacturers. Further, the Agency

believes that operations conducted by engine manufacturers under the terms of Class I provisional certificates, for the purpose of sales demonstrations, market surveys, and other similar activities related to the sale of their engines, would contribute to the promotion and development of civil aeronautics in the United States.

SR–425B is therefore being superseded by SR–425C to permit certain engine manufacturers to apply for Class I provisional type and provisional airworthiness certificates if they have applied for the issuance of a supplemental type certificate.

Since this is a superseding regulation which relieves restrictions and imposes no additional burden on any person, notice and public procedures hereon are unnecessary, and this regulation may be made effective on less than 30 days' notice.

In consideration of the foregoing, the following Special Civil Air Regulation is adopted to become effective June 6, 1961:

GENERAL

1. *Applicability.* Contrary provisions of the Civil Air Regulations notwithstanding, provisional type and airworthiness certificates, amendments to provisional type certificates, and provisional amendments to type certificates, will be issued as prescribed in this regulation to a manufacturer or an air carrier. As used in this regulation, a manufacturer shall mean only a manufacturer who is a citizen of the United States; and the term air carrier shall not include an air taxi operator.

2. *Eligibility.*

(a) A manufacturer of aircraft manufactured by him within the United States may apply for Class I or Class II provisional type and provisional airworthiness certificates, for amendments to provisional type certificates held by him, and for provisional amendments to type certificates held by him.

(b) An air carrier holding an air carrier operating certificate authorizing him to conduct operations under Parts 40, 41, 42, or 46 of the Civil Air Regulations may apply for Class II provisional airworthiness certificates for transport category aircraft which meet the conditions of either subparagraphs (1) or (2) of this paragraph.

(1) The aircraft has a currently valid Class II provisional type certificate or an amendment thereto;

(2) The aircraft has a currently valid provisional amendment to a type certificate which was preceded by a corresponding Class II provisional type certificate.

(c) An engine manufacturer who has altered a type certificated aircraft by installing different type certificated engines, manufactured by him within the United States, in place of the original engines, may apply for Class I provisional type and provisional airworthiness certificates for such aircraft, and for amendments to Class I provisional type certificates held by him, if the basic aircraft, before alteration was type certificated in the normal, utility, acrobatic, or transport category.

3. *Application.*

(a) *General.* Applications for provisional type and airworthiness certificates, for amendments to provisional type certificates, and for

In consideration of the foregoing, the following Special Civil Air Regulation, No. SR–425B, is adopted to become effective April 7, 1960:

GENERAL

1. *Applicability.* Contrary provisions of the Civil Air Regulations notwithstanding, provisional type and airworthiness certificates, amendments to provisional type certificates, and provisional amendments to type certificates, will be issued as prescribed in this regulation to a manufacturer or an air carrier. As used in this regulation, a manufacturer shall mean only a manufacturer who is a citizen of the United States; and the term air carrier shall not include an air taxi operator.

2. *Eligibility.*

(a) A manufacturer of aircraft manufactured by him within the United States may apply for Class I or Class II provisional type and provisional airworthiness certificates, for amendments to provisional type certificates held by him, and for provisional amendments to type certificates held by him.

(b) An air carrier holding an air carrier operating certificate authorizing him to conduct operations under Parts 40, 41, 42, or 46 of the Civil Air Regulations may apply for Class II provisional airworthiness certificates for transport category aircraft which meet the conditions of either subparagraphs (1) or (2) of this paragraph.

(1) The aircraft has a currently valid Class II provisional type certificate or an amendment thereto;

(2) The aircraft has a currently valid provisional amendment to a type certificate which was preceded by a corresponding Class II provisional type certificate.

3. *Application—*

(a) *General.* Applications for provisional type and airworthiness certificates, for amendments to provisional type certificates, and for provisional amendments to type certificates, shall be submitted to the Chief, Flight Standards Division, FAA, of the Regional Office in which the manufacturer or air carrier is located and shall be accompanied by the pertinent information specified in this regulation.

4. *Duration.* Unless sooner surrendered, superseded, revoked, or otherwise terminated, certificates and amendments thereto, shall have periods of duration in accordance with paragraphs (a) through (f) of this section.

(a) A Class I provisional type certificate shall remain in effect for 24 months after the date of its issuance or until the date of issuance of the corresponding type ceritficate, whichever occurs first.

(b) A Class I provisional type certificate shall expire immediately upon issuance of a Class II provisional type certificate for aircraft of the same type design.

(c) A Class II provisional type certificate shall remain in effect for 6 months after the date of its issuance or 60 days after the date of issuance of the corresponding type certificate, whichever occurs first.

(d) An amendment to a Class I or a Class II provisional type certificate shall remain in effect for the duration of the corresponding provisional type certificate.

(e) A provisional amendment to a type certificate shall remain in effect for 6 months after its approval or until the amendment to the type certificate is approved, whichever occurs first.

(f) Provisional airworthiness certificates shall remain in effect for the duration of the corresponding provisional type certificate, amendment to a provisional type certificate, or a provisional amendment to the type certificate.

5. *Transferability of certificates.* Certificates issued pursuant to this regulation are not transferable except that a Class II provisional airworthiness certificate may be transferred to an air carrier eligible to apply for such certificate under section 2 of this regulation.

6. *Display of certificates and markings.* A provisional airworthiness certificate shall be prominently displayed in the aircraft for which it is issued. The words "Provisional Airworthiness" shall be painted in letters not less than 2 inches high on the exterior of such aircraft adjacent to each entrance to the cabin and cockpit of the aircraft.

REQUIREMENTS FOR ISSUANCE

7. *Class I provisional type certificates.* A Class I provisional type certificate and amendments thereto will be issued for a particular type design when the manufacturer of the aircraft shows compliance with the provisions of paragraphs (a) through (f) of this section, and an authorized representative of the Administrator finds, on the basis of information submitted to him by the manufacturer in compliance with the provisions of this section and of other relevant information, that there is no feature, characteristic, or condition which would render the aircraft unsafe when operated in accordance with the limitations established in paragraph (d) of this section and in section 13 of this regulation.

(a) The manufacturer has applied for the issuance of a type certificate for the aircraft.

(b) The manufacturer certifies that the aircraft has met the provisions of subparagraphs (1) through (3) of this paragraph.

(1) The aircraft has been designed and constructed in accordance with the airworthiness requirements applicable to the issuance of the type certificate for the aircraft;

(2) The aircraft substantially complies with the applicable flight characteristics requirements for the type certificate;

(3) The aircraft can be operated safely under the appropriate operating limitations specified in this regulation.

(c) The manufacturer has submitted a report showing that the aircraft had been flown in all maneuvers necessary to show compliance with the flight requirements for the issuance of the type certificate and to establish that the aircraft can be operated safely in accordance with the limitations specified in this regulation.

(d) The manufacturer has established limitations with respect to weights, speeds, flight maneuvers, loading, operation of controls and equipment, and all other relevant factors. The limitations shall include all the limitations required for the issuance of a type certificate for the aircraft: *Provided,* That, where such limitations have not been established,

appropriate restrictions on the operation of the aircraft shall be established.

(e) The manufacturer has established an inspection and maintenance program for the continued airworthiness of the aircraft.

(f) A prototype aircraft has been flown by the manufacturer for at least 50 hours pursuant to the authority of an experimental certificate issued under Part 1 of the Civil Air Regulations or under the auspices of a United States military service: *Provided,* That the number of flight hours may be reduced by the authorized representative of the Administrator in the case of an amendment to a provisional type certificate.

8. *Class I provisional airworthiness certificates.* Except as provided in section 12 of this regulation, a Class I provisional airworthiness certificate will be issued for an aircraft, for which a Class I provisional type certificate is in effect, when the manufacturer of the aircraft shows compliance with the provisions of paragraphs (a) through (d) of this section, and an authorized representative of the Administrator finds that there is no feature, characteristic, or condition of the aircraft which would render the aircraft unsafe when operated in accordance with the limitations established in sections 7(d) and 13 of this regulation.

(a) The manufacturer is the holder of the provisional type certificate for the aircraft.

(b) The manufacturer submits a statement that the aircraft conforms to the type design corresponding with the provisional type certificate and has been found by him to be in safe operating condition under the applicable limitations.

(c) The aircraft has been flown at least 5 hours by the manufacturer.

(d) The aircraft has been supplied with a provisional aircraft flight manual or other document and appropriate placards containing the limitations required by sections 7(d) and 13 of this regulation.

9. *Class II provisional type certificates.* A Class II provisional type certificate and amendments thereto will be issued for a particular transport category type design when the manufacturer of the aircraft shows compliance with the provisions of paragraphs (a) through (h) of this section, and an authorized representative of the Administrator finds, on the basis of information submitted to him by the manufacturer in compliance with the provisions of this section and of other relevant information, that there is no feature, characteristic, or condition which would render the aircraft unsafe when operated in accordance with the limitations established in paragraph (f) of this section and in sections 13 and 14 of this regulation.

(a) The manufacturer has applied for the issuance of a transport category type certificate for the aircraft.

(b) The manufacturer holds a type certificate and a currently effective production certificate for at least one other aircraft in the same transport category as the subject aircraft.

(c) The Agency's official flight test program with respect to the issuance of a type certificate for the aircraft is in progress.

(d) The manufacturer certifies that the aircraft has met the provisions of subparagraphs (1) through (3) of this paragraph.

(1) The aircraft has been designed and constructed in accordance with the airworthiness requirements applicable to the issuance of the type certificate for the aircraft;

(2) The aircraft substantially complies with the applicable flight characteristics requirements for the type certificate;

(3) The aircraft can be operated safely under the appropriate operating limitations specified in this regulation.

(e) The manufacturer has submitted a report showing that the aircraft had been flown in all maneuvers necessary to show compliance with the flight requirements for the issuance of the type certificate and to establish that the aircraft can be operated safely in accordance with the limitations specified in this regulation.

(f) The manufacturer has prepared a provisional aircraft flight manual which includes limitations with respect to weights, speeds, flight maneuvers, loading, operation of controls and equipment, and all other relevant factors. The limitations shall include all the limitations required for the issuance of a type certificate for the aircraft: *Provided*, That, where such limitations have not been established, the provisional flight manual shall contain appropriate restrictions on the operation of the aircraft.

(g) The manufacturer has established an inspection and maintenance program for the continued airworthiness of the aircraft.

(h) A prototype aircraft has been flown by the manufacturer for at least 100 hours pursuant to the authority of either an experimental certificate issued under Part 1 of the Civil Air Regulations or a Class I provisional airworthiness certificate: *Provided*, That the number of flight hours may be reduced by the authorized representative of the Administrator in the case of an amendment to a provisional type certificate.

10. *Class II provisional airworthiness certificates.* Except as provided in section 12 of this regulation, a Class II provisional airworthiness certificate will be issued for an aircraft, for which a Class II provisional type certificate is in effect, when the applicant shows compliance with the provisions of paragraphs (a) through (e) of this section, and an authorized representative of the Administrator finds that there is no feature, characteristic, or condition of the aircraft which would render the aircraft unsafe when operated in accordance with the limitations established in section 9(f), 13, and 14 of this regulation.

(a) The applicant submits evidence that a Class II provisional type certificate for the aircraft has been issued to the manufacturer.

(b) The applicant submits a statement by the manufacturer that the aircraft has been manufactured under a quality control system adequate to ensure that the aircraft conforms to the type design corresponding with the provisional type certificate.

(c) The applicant submits a statement that the aircraft has been found by him to be in a safe operating condition under the applicable limitations.

(d) The applicant submits a statement that the aircraft has been flown at least 5 hours by the manufacturer.

(e) The aircraft has been supplied with a provisional aircraft flight manual containing the limitations required by sections 9(f), 13, and 14 of this regulation.

11. *Provisional amendments to type certificate.* A provisional amendment to a type certificate will be approved when the manufacturer of the type certificated aircraft shows compliance with the provisions of paragraphs (a) through (g) of this section, and an authorized representative of the Administrator finds, on the basis of information submitted to him by the manufacturer in compliance with the provisions of this section and of other relevant information, that there is no feature, characteristic, or condition which would render the aircraft unsafe when operated in accordance with the limitations established in paragraph (e) of this section, and section 13 and, if applicable, section 14 of this regulation.

(a) The manufacturer has applied for an amendment to the type certificate.

(b) The Agency's official flight test program with respect to the amendment of the type certificate is in progress.

(c) The manufacturer certifies that the aircraft has met the provisions of subparagraphs (1) through (3) of this paragraph.

(1) The modification involved in the amendment to the type certificate has been designed and constructed in accordance with the airworthiness requirements applicable to the issuance of the type certificate for the aircraft;

(2) The aircraft substantially complies with the applicable flight characteristics requirements for the type certificate;

(3) The aircraft can be operated safely under the appropriate operating limitations specified in this regulation.

(d) The manufacturer has submitted a report showing that the aircraft incorporating the modifications involved had been flown in all maneuvers necessary to show compliance with the flight requirements applicable to these modifications and to establish that the aircraft can be operated safely in accordance with the limitations specified in this regulation.

(e) The manufacturer has established, in a provisional aircraft flight manual or other document and appropriate placards, limitations with respect to weights, speeds, flight maneuvers, loading, operation of controls and equipment, and all other relevant factors. The limitations shall include all the limitations required for the issuance of a type certificate for the aircraft: *Provided,* That where such limitations have not been established, appropriate restrictions on the operation of the aircraft shall be established.

(f) The manufacturer has established an inspection and maintenance program for the continued airworthiness of the aircraft.

(g) An aircraft modified in accordance with the corresponding amendment to the type certificate has been flown by the manufacturer for the number of hours found necessary by the authorized representative of the Administrator, such flights having been conducted pursuant to the authority of an experimental certificate issued under Part 1 of the Civil Air Regulations.

12. *Provisional airworthiness certificates corresponding with provisional amendment to type certificate.* A Class I or a Class II provisional airworthiness certificate, as specified in section 2 of this regulation, will be issued for an aircraft, for which a provisional amendment to the type certificate has been issued, when the applicant shows compliance with the

provisions of paragraphs (a) through (e) of this section, and an authorized representative of the Administrator finds that there is no feature, characteristic, or condition of the aircraft, as modified in accordance with the provisionally amended type certificate, which would render the aircraft unsafe when operated in accordance with the limitations established in sections 11(e) and 13 and, if applicable, section 14 of this regulation.

(a) The applicant submits evidence that approval has been obtained for the relevant provisional amendment to the type certificate for the aircraft.

(b) The applicant submits evidence that the modification to the aircraft was accomplished under a quality control system adequate to ensure that the modification conforms to the provisionally amended type certificate.

(c) The applicant submits a statement that the aircraft has been found by him to be in a safe operating condition under the applicable limitations.

(d) The applicant submits a statement that the aircraft has been flown at least 5 hours by the manufacturer.

(e) The aircraft has been supplied with a provisional aircraft flight manual or other document and appropriate placards containing the limitations required by section 11(e) and 13 and, if applicable, section 14 of this regulation.

OPERATING LIMITATIONS

13. *Operation of provisionally certificated aircraft.* An aircraft for which a provisional airworthiness certificate has been issued shall be operated only by a person eligible to apply for a provisional airworthiness certificate in accordance with section 2 of this regulation. Operations shall be in compliance with paragraphs (a) through (j) of this section.

(a) The aircraft shall not be operated in air transportation unless so authorized in a particular case by the Director, Bureau of Flight Standards.

(b) Operations shall be restricted to the United States, its Territories and possessions.

(c) The aircraft shall be limited to the types of operations listed in subparagraphs (1) through (7) of this paragraph.

(1) Flights conducted by the manufacturer of the aircraft in direct conjunction with the type certification of the aircraft;

(2) Training of flight crews, including simulated air carrier operations;

(3) Demonstration flights conducted by the manufacturer for prospective purchasers;

(4) Market surveys by the manufacturer;

(5) Flight checking of instruments, accessories, and equipment, the functioning of which does not adversely affect the basic airworthiness of the aircraft;

(6) Service testing of the aircraft;

(7) Such additional operations as may be specifically authorized by the authorized representative of the Administrator.

(d) All operations shall be conducted within the prescribed limitations displayed in the aircraft or set forth in the provisional aircraft flight manual or other document containing the limitations for the safe operation of the aircraft: *Provided,* That operations conducted in direct conjunction with the type certification of the aircraft shall be subject to the experimental aircraft limitations of section 1.74 of Part 1 of the Civil Air Regulations, and all "flight tests" as defined in section 60.60 of the Civil Air Regulations shall be conducted in accordance with the requirements of section 60.24 of that part.

(e) The operator shall establish procedures for the use and guidance of flight and ground personnel in the conduct of operations under this section. Specific procedures shall be established for operations from and into airports where the runways require takeoffs or approaches over populated areas. All procedures shall be approved by an authorized representative of the Administrator. All operations shall be conducted in accordance with such approved procedures.

(f) The operator shall ensure that each flight crewmember is properly certificated and possesses adequate knowledge of, and familiarity with, the aircraft and the procedures to be used by him.

(g) The aircraft shall be maintained in accordance with applicable Civil Air Regulations, with the inspection and maintenance program established in accordance with this regulation, and with any special inspections and maintenance conditions prescribed by an authorized representative of the Administrator.

(h) No aircraft shall be operated under authority of a provisional airworthiness certificate if the manufacturer or the authorized representative of the Administrator determines that a change in design, construction, or operation is necessary to ensure safe operation, until such change is made and approved by the authorized representative of the Administrator. Section 1.24 of Part 1 of the Civil Air Regulations shall be applicable to operations under this section.

(i) Only those persons who have a bona fide interest in the operations permitted under this section or who are specifically authorized by both the manufacturer and the authorized representative of the Administrator may be carried in provisionally certificated aircraft: *Provided,* That they have been advised by the operator of the provisional certification status of the aircraft.

(j) The authorized representative of the Administrator may prescribe such additional limitations or procedures as he finds necessary. This shall include limitations on the number of persons who may be carried aboard the aircraft.

14. *Additional limitations to operations by air carriers.* In addition to the limitations in section 13 of this regulation, operations by air carriers shall be subject to the provisions of paragraphs (a) through (d) of this section.

(a) In addition to crewmembers, the aircraft may carry only those persons who are listed in section 40.356(c) of Part 40 of the Civil Air Regulations or who are specifically authorized by both the air carrier and the authorized representative of the Administrator.

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(b) The air carrier shall maintain current records for each flight crewmember. These records shall include such information as is necessary to show that each flight crewmember is properly trained and qualified to perform his assigned duties.

(c) The appropriate instructor, supervisor, or check airman shall certify to the proficiency of each flight crewmember and such certification shall become a part of the flight crewmember's record.

(d) A log of all flights conducted under this regulation, and accurate and complete records of inspections made and maintenance accomplished, shall be kept by the air carrier and made available to the manufacturer and to an authorized representative of the Administrator.

15. *Other operations.* The Director, Bureau of Flight Standards, may credit toward the aircraft proving test requirements of the applicable air carrier regulations such operations conducted pursuant to this special regulation as he finds have met the applicable aircraft proving test requirements: *Provided,* That he also finds that there is no significant difference between the provisionally certificated aircraft and the aircraft for which application is made for operation pursuant to an air carrier operating certificate.

CERTIFICATES ISSUED UNDER SR–425A

16. *Duration.* Currently valid provisional type and airworthiness certificates issued in accordance with Special Civil Air Regulation No. SR–425A shall remain in effect for the durations and under the conditions prescribed in that regulation.

This special regulation supersedes Special Civil Air Regulation No. SR–425A and shall terminate on June 30, 1963, unless sooner superseded, rescinded, or otherwise terminated.

SPECIAL CIVIL AIR REGULATION NO. SR-428

Effective: February 3, 1959
Adopted: December 30, 1958

Authorization for Student Pilots in Alaska To Operate on International Flights

Section 43.52 of Part 43 of the Civil Air Regulations currently provides, among other things, that no student pilot shall pilot an aircraft on an international flight.

Increasing flying activity in the northern area of Alaska's southeastern panhandle has lead to active student instruction at the Juneau and Gustavus Airports, and the formation of a flying club at the Haines Airport. The topography of the country and the adverse weather conditions which prevail to the south are such that they do not lend themselves to practical cross-country training for student pilots and, in addition, present an unsafe situation.

To the south, the nearest airport which falls within the 100-mile minimum distance required to qualify for a private pilot certificate is Annette Island. Annette Island is 310 miles from Haines Airport along a route which is impracticable for cross-country training because of treacherous winds, sudden weather changes, and terrain which provides virtually no accessibility for a successful forced landing.

To the north, the nearest airport beyond 100 miles from Haines would be White Horse, located in the Yukon Territory. White Horse is 110 miles from Haines along the route of the White Pass and the Yukon Railroad over terrain which provides accessibility for a successful forced landing. In addition, the weather conditions along this route are more favorable and predictable. Although this route represents the only practical and safe cross-country training for student pilots, it would require their participating in international flights which are prohibited by the present regulations.

Special arrangements have been concluded with Canada to provide similar reciprocal privileges should the need arise to conduct cross-country flights to specific points within the United States.

For the reasons stated, and since this regulation places no additional burden on any person, the Board finds that notice and public procedure hereon are unnecessary.

In consideration of the foregoing, the Civil Aeronautics Board hereby makes and promulgates the following Special Civil Air Regulation, effective February 3, 1959.

Contrary provisions of section 43.52 of Part 43 of the Civil Air Regulations notwithstanding, a student pilot may make international flights for the purpose of solo cross-country training from the Haines, Gustavus, and Juneau Airports, located in that part of Alaska lying east of the one hundred and forty-first meridian of west longitude, to White Horse located in the Yukon Territory, over the province of British Columbia, Canada, and return.

Addendum

Preambles to Amendments to Civil Air Regulations Part 43

NOTE

Part 43 of the Civil Air Regulations was last revised by the Civil Aeronautics Board with an effective date of October 1, 1954. This was not a general revision of the part, but only a reprint to incorporate outstanding amendments and to make minor editorial changes. This revision was published in the Federal Register on October 2, 1954 (19 F.R. 6370).

Amendment 43–1

Additional Instruments for IFR Operations	Adopted:	July 20, 1955.
	Effective:	Aug. 1, 1956.
	Published:	July 26, 1955. (20 F.R. 5312)

This amendment includes a substantive change which requires an artificial-horizon and a directional gyro as additional instruments for IFR flight operations. This additional equipment is made mandatory because flight tests on small aircraft have shown that safe instrument flight without such equipment is extremely difficult under rough air conditions.

Interested persons have been afforded an opportunity to participate in the making of this amendment (20 F.R. 369), and due consideration has been given to all relevant matter presented.

Amendment revised section 43.40 by adding a note after the introductory paragraph and by adding new subparagraphs (8) and (9) to paragraph (c).

Amendment 43–2

Elimination of the Annual Inspection of General Aircraft	Adopted:	Apr. 13, 1956.
	Effective:	July 17, 1956.
	Published:	Apr. 20, 1956. (21 F.R. 2587)

Currently effective maintenance provisions of Part 43 of the Civil Air Regulations require owners and operators of general aircraft to maintain their aircraft in accordance with Part 18 and to have the aircraft inspected once a year by a representative of the Administrator or an appropriately certificated repair station. In addition, prior to the annual inspection, such aircraft must receive a periodic inspection conducted by an appropriately certificated mechanic or repair station. If the aircraft is used for hire, it must also receive an inspection each 100 hours of operation. The owner or operator is presently required to retain various CAA forms in addition to his aircraft and engine records.

Amendments to other parts of the Civil Air Regulations are being made concurrently with these amendments to Part 43 in order to simplify the procedures for inspection, retention of records, and return to service, of general aircraft and to assign to the industry the final responsibility for making inspections and for maintaining documentary evidence of continued airworthiness subject to such surveillance activities as the Administrator determines necessary.

Part 43 is being amended to provide the owner or operator of an aircraft with two methods of inspection. The first requires a periodic inspection once each year; and, in addition, requires a 100-hour inspection on those aircraft used for carrying passengers for hire or used for flight instruction for hire. The second, or alternate method, requires the use of a system whereby the inspection may be conducted on a progressive or continuous basis which permits a balanced or equalized workload, thus allowing increased utilization of the aircraft. An authorized representative of the Administrator is not required to return the aircraft to service after any of these inspections.

A record of the time in service of the aircraft and each engine, inspections, maintenance, compliance with mandatory notes, weight and balance record, equipment list, and a reference to major repairs and major alterations are now required to be kept in the aircraft log.

Interested persons have been afforded an opportunity to participate in the making of these amendments (20 F.R. 7380), and due consideration has been given to all relevant matter presented.

Amendment revised sections 43.20, 43.22, and 43.23 and added definitions of "Aircraft," "Maintenance," "Operate," "One-hundred-hour inspection," "Periodic inspection," "Progressive inspection," and "Time in service" to section 43.70.

Amendment 43–3

Airworthiness Certification of Foreign Aircraft Operated in the United States	Adopted: Jan. 3, 1957. Effective: Feb. 7, 1957. Published: Jan. 9, 1957. (22 F.R. 181)

Section 43.10 of Part 43 of the Civil Air Regulations permits the Administrator to exempt foreign aircraft, authorized by him to be flown in the United States, from compliance with certain requirements applicable to domestic civil aircraft. The language of this section of Part 43 was originally predicated on the provisions of Section 6(c) of the Air Commerce Act of 1926 (as amended prior to August 8, 1953) which authorized the Administrator to issue special permits for foreign aircraft to be navigated in the United States. Since the amendment of August 8, 1953, divested the Administrator of such authority and vested it in the Board under Section 6(b) of the Air Commerce Act, it is considered advisable to revise section 43.10 and delete the obsolete provisions.

Interested persons have been afforded an opportunity to participate in the making of this amendment (21 F.R. 2952), and due consideration has been given to all relevant matter presented.

Amendment revised section 43.10.

Amendment 43–4

General Operation Rules VFR Minimums Within a Control Zone for Flights Issued a Traffic Clearance	Adopted: Feb. 6, 1957. Effective: Mar. 25, 1957. Published: Feb. 9, 1957. (22 F.R. 813)

Part 60 of the Civil Air Regulations contains the air traffic rules governing the operation of aircraft. Section 60.31 currently authorizes air traffic control to permit flight within a control zone when the flight and ground visibility are below the specified three-mile minimum. This provision was intended to permit a pilot to fly from a control zone to an area outside of controlled airspace in which the visibility minimum for VFR flight is one mile. Part 43 prohibits a pilot from flying an aircraft under instrument flight rules unless he holds a valid instrument rating issued by the Administrator and unless he satisfies certain recent flight experience requirements.

It has come to the Board's attention that some pilots who are not rated to fly their aircraft solely by reference to instruments were obtaining a traffic clearance and flying through solid overcast or in conditions of restricted visibility and, consequently, were a hazard to themselves and others. In order to clarify the Board's intention that such flights not be conducted, certain amendments to the Civil Air Regulations were proposed in Draft Release 56–7 (21 F.R. 1748), "VFR Minimums Within a Control Zone for Flights Issued a Traffic Clearance." The foregoing draft release proposed to establish in Part 60 specific weather minimums below which VFR flight could not be conducted. In addition, amendments to sections 43.65 and 43.68(d) of Part 43 were proposed to make it clear that these sections are intended to prohibit a non-instrument-rated pilot, as well as an instrument-rated pilot who has not met the recent experience requirements for instrument

flight, from operating aircraft in weather conditions below the minimums prescribed in Part 60 for VFR flight.

Interested persons have been afforded an opportunity to participate in the making of these amendments (21 F.R. 1748), and due consideration has been given to all relevant matters.

Amendment revised section 43.65 and the first sentence of section 43.68(d).

Amendment 43–5

Position and Anticollision Light Requirements

Adopted: Feb. 25, 1957.
Effective: Apr. 1, 1957.
Published Mar. 1, 1957.
(22 F.R. 1276)

The continuing increase in air traffic density and the advent of aircraft capable of appreciably higher speeds than heretofore attained demand further improvement in the exterior lighting of aircraft. Experience with the use of anticollision lights on large airplanes has shown that a significant increase in the conspicuity of aircraft can be attained with such lights during night operations. The currently effective provisions of Part 43 of the Civil Air Regulations require the installation of an approved anticollision light only on large aircraft operated at night.

When the Board promulgated regulations requiring anticollision lights on large aircraft, it indicated that additional study was being given to the possibility of requiring generally similar types of lights for small aircraft. This amendment, which requires anticollision lights for the night operation of newly certificated small aircraft, reflects the initial results of such additional study by the Board. Experience gained under this amendment along with results of continued studies should provide a basis for possible regulatory action in the future with respect to requiring anticollision lights on all small aircraft.

In view of the foregoing, and since there are no requirements in the operating parts of the regulations to require small aircraft to install anticollision lights, the Board is amending section 43.30(b)(3) to require their use on all small aircraft for which such lights are required in conjunction with their certification, i.e., all small aircraft for which application for type certification is made after the effective date of this amendment.

Since there are no specifications for anticollision lights in Parts 3 and 6 of the Civil Air Regulations, amendments to these parts are being promulgated concurrently to provide a basis of approval for such lights as are required by this amendment. Aircraft not affected by this amendment may continue to use or install existing approved anticollision lights or, optionally, may install anticollision lights conforming with the new specifications in Parts 3 and 6.

Interested persons have been afforded an opportunity to participate in the making of this amendment (21 F.R. 3388), and due consideration has been given to all relevant matter presented.

Amendment revised section 43.30(b)(3).

Amendment 43–6

Miscellaneous Amendments

Adopted: Apr. 11, 1957.
Effective: Apr.11, 1957.
Published: Apr. 17, 1957.
(22 F.R. 2658)

Several sections in the recently revised Part 20 of the Civil Air Regulations duplicate certain provisions in the currently effective Part 43. The purpose of this amendment is to eliminate duplication and conflict between the two parts.

The subject matter of section 43.43, "Pilot logbooks," is now contained in Part 20; and, concurrently with this amendment, the related subject matter contained in section 43.44, "Logging of flight time," is being added to Part 20. Accordingly, in order to eliminate duplication, both of these sections are being deleted from Part 43.

The provisions in sections 43.53 and 43.54, "Requirements for first solo" and "Flight area limitations," are now contained in the revised Part 20. As these requirements are more appropriately contained in Part 20, they are being deleted from Part 43.

Section 43.66, "Instrument flight instruction," is in conflict with the provision in section 20.127 which requires an applicant for an instrument rating to have received 10 hours of instrument flight instruction given by a rated instrument flight instructor. This conflict is being remedied by deleting section 43.66.

Since the changes effected by this amendment are minor in nature and impose no additional burden on any person, notice and public procedure hereon are unnecessary, and they may be made effective on less than 30 days' notice.

Amendment deleted sections 43.43, 43.44, 43.53, 43.54, and 43.66.

Amendment 43–7

Variation of Aircraft Maximum Weights With Altitude

Adopted: July 19, 1957.
Effective: Aug. 23, 1957.
Published: July 24, 1957. (22 F.R. 5863)

It has been brought to the attention of the Civil Aeronautics Board that difficulty has been encountered in the interpretation of the Civil Air Regulations with respect to the provisions concerning variation of aircraft maximum weights with altitude for transport category airplanes. In order to clarify the Board's intention in this matter, this amendment to Part 43 of the Civil Air Regulations is being promulgated.

The presently effective certification regulations applicable to transport category airplanes, contained in Part 4b of the Civil Air Regulations, require the determination of the maximum certificated weights. The provisions of this part permit, at the option of the applicant for type certification, the establishment of different maximum weights for the airplane at each altitude and for each practicably separable operating condition; e.g., takeoff, en route, and landing. In addition, the applicant is permitted to elect the altitudes at which maximum weights are to be established. In other words, the applicant may request certification of an airplane at sea level only or up to any altitude he may choose. If the applicant chooses a high airport elevation for certification, he may vary the maximum weights of the airplane for the various airport elevations between sea level and the highest airport elevation or he may establish the maximum weights for one airport elevation and use those weights for all airport elevations below the one selected. For example, if the airplane will be operated out of airports at elevations of 5,000 feet or less, the airplane's maximum takeoff and landing weights will be determined for an altitude of 5,000 feet and those weights will be used for all operations; or, on the other hand, the weight can be varied for intermediary airport elevations since this usually results in higher maximum weights for lower airport elevations.

In addition to the aforementioned certification requirements, Part 4b requires that an Airplane Flight Manual be prepared by the applicant. The regulations applicable to this Airplane Flight Manual require that the weight limitations determined in accordance with that part be listed as operating limitations of the airplane. Therefore, if the applicant chooses to vary the weight of the airplane with altitude, this variation becomes an operating limitation on the airplane. Accordingly, if he chooses to certificate the airplane at sea level only, the airplane would be limited to operations out of and into sea level airports. Similarly, if the applicant certificates the airplane for an airport elevation of 5,000 feet, the airplane would be limited to operations out of and into airports at elevations of 5,000 feet or less and if, in addition, he does not choose to vary the airplane's weight

with altitude, the weights established for 5,000 feet would be applicable for all airports up to the 5,000-foot elevation. If, however, the applicant chooses to vary the weight with altitude, the airplane weight limitation at a particular airport would depend on the airport elevation.

Presently effective provisions of Parts 40, 41, and 42 of the Civil Air Regulations prohibit takeoffs and landing of large transport category airplanes in passenger service at airports with elevations outside the altitude range for which maximum takeoff and landing weights have been determined, and, further, provide that the weight of the airplane at takeoff and landing shall not exceed the authorized maximum takeoff and landing weights for the elevation of the airport at which the takeoff or landing is made. This provision in Parts 40, 41, and 42 was specifically included in the text for passenger-carrying airplanes for the convenience of the operator since these airplanes are subject to performance operating limitations which are applicable over and above the certification limitations required by Part 4b. It became evident that singling out air carrier passenger service gave the erroneous impression to some operators that non-air-carrier and cargo service were not subject even to the certification limitations.

The intent of Draft Release No. 55–29 was to correct this impression by indicating directly that the certification limitations of Part 4b are applicable to all airplanes certificated in accordance with the transport category performance requirements, irrespective of the type of operation involved.

With respect to cargo operations under Parts 40 and 41, it should be noted that they may be conducted in accordance with provisions established by the Administrator under Part 42. Under Part 42, the Administrator has developed Civil Aeronautics Manual material applicable to transport category airplanes in cargo operations which prohibits the weight of the airplane at takeoff from exceeding the authorized maximum takeoff weight for the elevation of the airport from which the takeoff is made. Therefore, when cargo operations are conducted under Part 42 the same takeoff limitations apply as apply to passenger-carrying airplanes.

The Board has adopted Special Civil Air Regulations applicable to C–46, DC–3, and L–18 airplanes. Special Civil Air Regulation No. SR–406C requires that the C–46 airplane in passenger service be recertificated under the provisions of Part 4b of the Civil Air Regulations by a date certain. Special Civil Air Regulation No. SR–407, applicable to the DC–3 and L–18, permits the maximum certificated weights for these airplanes to be increased if the performance requirements of either Part 4a or Part 4b are complied with. The provisions of Part 4a permit certification with sea level data only. This limitation of Part 4a with respect to sea level data has led to additional confusion when an airplane so certificated is operated in accordance with Part 43. It was the Board's intention that, if operators of DC–3 or L–18 airplanes recertificate their airplanes in accordance with the provisions of Special Civil Air Regulation No. SR–407, the operating limitations contained in the Airplane Flight Manual would establish the weights for the airplane after the recertification since under the provisions of Part 43 it is required that all airplanes be operated in accordance with the limitations contained in the Airplane Flight Manual.

It was proposed in a notice of proposed rule making published in the Federal Register (20 F.R. 9312) and circulated to the industry as Civil Air Regulations Draft Release No. 55–29 to amend the present operating regulations to prohibit all transport category airplanes certificated under the provisions of Part 4a or Part 4b, or recertificated in accordance with SR–406C or SR–407, from operating at altitudes exceeding the altitude for which maximum certificated weights have been established.

It was apparent from the comments received on Draft Release No. 55–29 that misinterpretation of the regulations was even more widespread than previously believed. Accordingly, supplemental notice was given in the Federal Register (21 F.R. 1867) and circulated to the industry as Civil Air Regulations Draft Release No. 56–8 that a public discussion would be of constructive assistance to a more general understanding of the problems involved.

Pursuant to the supplemental notice, a meeting was held to discuss this subject on April 12, 1956, in Washington, D.C. Since most of the confusion with respect to this subject stems from operations involving DC–3 and L–18 type airplanes, participants in this meeting were predominantly operators of such airplanes. In explanation of the

Board's proposal, it was pointed out that Special Civil Air Regulation No. SR–407 contains a provision which permits an increase in the maximum certificated weight in accordance with the transport category provisions contained in Part 4a or Part 4b; and that SR–407 includes a note indicating that the application of transport category performance requirements usually results in establishment of maximum certificated weights which vary with altitude. Therefore, if an operator requested and received approval under SR–407 for an increase in takeoff weight, such weight would decrease as the elevation of the airport increases from which the operation is conducted. To clarify the situation as it pertains to the variation-of-weights-with-altitude requirements for all transport category airplanes, Part 43 is being amended by limiting operations to airport elevations where the weight has been determined and requiring that the airplane at takeoff and landing shall not exceed the authorized maximum takeoff and landing weights established for the altitude.

Interested persons have been afforded an opportunity to participate in the making of this amendment and due consideration has been given to all relevant matter presented.

Amendment added a new section 43.11.

Amendment 43–8

Deletion of Landing Flare Requirements

Adopted: Jan. 9, 1958.
Effective: Feb. 13, 1958.
Published: Jan. 16, 1958. (23 F.R. 294)

Part 43 of the Civil Air Regulations currently requires that civil aircraft carrying passengers for hire at night shall be equipped with specified types and numbers of landing flares.

The value of landing flares as required equipment was discussed at the Board's 1955 Annual Airworthiness Review. Recommendations were made at that time to amend the regulations to require the carriage of flares only in large aircraft in extended overwater operations. As a result of this review and further study by the Board, Civil Air Regulations Draft Release No. 56–31, "Landing Flare Requirements of Parts 40, 41, 42, and 43 of the Civil Air Regulations," was circulated to the public (21 F.R. 10255). This notice, which proposed the deletion of the flare requirement, was issued for the purpose of obtaining the views of all interested persons to assist the Board in making a complete reevaluation of existing flare requirements.

The consensus in the comment received from interested persons on the proposals contained in Draft Release 56–31 was that the landing flare requirements should be deleted for all Part 43 operations. In this connection, it should be noted that Civil Air Regulations Draft Release No. 55–24, "Air Taxi Certification and Operation Rules" (small aircraft of 12,500 pounds or less maximum certificated takeoff weight), did not propose flares as required equipment and no adverse comment was received on this proposal. Attention is also called to the fact that the carriage of passengers for hire is governed by other parts of the Civil Air Regulations, namely, Parts 40, 41, and 42, and that concurrently with this amendment the Board is amending these parts by deleting the requirement for the carriage of flares in operations conducted over land.

The Board has carefully considered all of the comment received and other relevant information and has concluded that flares for passenger-carrying aircraft should not be required as essential or mandatory safety equipment for operations conducted within the United States. The elimination of the requirement for the carriage of flares as contained herein, however, will not prevent operators from carrying flares if they choose.

Interested persons have been afforded an opportunity to participate in the making of this amendment (21 F.R. 10255), and due consideration has been given to all relevant matter presented.

Amendment deleted section 43.30(b)(5).

Amendment 43-9

Pilot Certificate Requirements for the Operation of United States and Foreign Registered Aircraft	Adopted:	Sept. 19, 1958.
	Effective:	Oct. 24, 1958.
	Published:	Sept. 24, 1958. (23 F.R. 7423)

Section 43.40 of Part 43 of the Civil Air Regulations requires in effect that no person shall pilot a civil aircraft within the United States unless he has in his personal possession a valid U.S. airman certificate or valid foreign pilot certificate. The language of this section, however, does not clearly distinguish between the pilot certificate required for the operation of U.S. registered aircraft as against that required for the operation of foreign registered aircraft. As a result, numerous requests have been made for individual interpretations of this section.

Section 602(a) of the Civil Aeronautics Act of 1938, as amended, empowers the Authority (Administrator) "to issue airman certificates specifying the capacity in which the holders thereof are authorized to serve as airmen in connection with aircraft."

Section 610(b) authorizes the Civil Aeronautics Board to exempt foreign aircraft and airmen serving in connection therewith from the certificate requirements of Section 610(a) provided the exemption is considered to be in the public interest.

Section 1102 provides "In exercising and performing its powers and duties under this Act, the Authority shall do so consistently with any obligation assumed by the United States in any treaty, convention, or agreement that may be in force between the United States and any foreign country or foreign countries. . . ."

Article 32 of the Chicago Convention provides "(a) The pilot of every aircraft and other members of the operating crew of every aircraft engaged in international navigation shall be provided with certificates of competency and licenses issued or rendered valid by the State in which the aircraft is registered."

Consistent with these provisions, section 43.40 of Part 43 of the Civil Air Regulations has always been interpreted as prohibiting a person from operating a United States registered aircraft unless he has a valid United States pilot certificate; and as prohibiting a person holding only a foreign pilot certificate from operating aircraft in the United States unless the pilot certificate was issued or rendered valid by the country in which the foreign aircraft is registered. While the application of section 43.40 to holders of United States pilot certificates apparently is understood, the provisions of this section have been susceptible to the erroneous interpretation that a holder of only a foreign pilot certificate may operate, within the United States, an aircraft of United States registry or of a registry other than of the country which issued the pilot certificate. In view of this difficulty with the present language in section 43.40, and in order to eliminate the need for individual interpretations, the Board considers it advisable to revise this section to clearly define the pilot certificate requirements for operation of both United States and foreign registered aircraft in the United States.

Since the changes effected by this amendment are clarifying in nature and impose no additional burden on any person, notice and public procedure hereon are unnecessary.

Amendment revised section 43.40.

Amendment 43–10

Medical Certificate and Renewal

Adopted: Dec. 30, 1958.
Effective: Feb. 3, 1959.
Published: Jan. 3, 1959.
(24 F.R. 52)

Section 43.41 of Part 43 of the Civil Air Regulations provides that no person shall pilot an aircraft under the authority of a pilot certificate issued by the Administrator, unless he has in his personal possession at all times while piloting an aircraft a medical certificate or other evidence satisfactory to the Administrator showing that he has met the physical requirements appropriate to his rating within the following time limits:

(a) Student or private pilot—24 calendar months.

(b) Commercial pilot—12 calendar months, or 24 calendar months for operations requiring only a private pilot certificate.

(c) Airline transport pilot—6 calendar months, or 12 calendar months for operations requiring only a commercial pilot certificate, or 24 calendar months for operations requiring only a private pilot certificate.

In commenting on Civil Air Regulations Draft Release No. 58–17 which proposed an amendment to Part 29 of the Civil Air Regulations to provide for the inclusion of an electrocardiogram in the physical examination for first class medical certificates, several persons who hold airline transport ratings called attention to the fact that they are not engaged in airline flight activities, but are engaged in operations requiring only a commercial pilot certificate. They are, nevertheless, required to pass a first class medical examination on each subsequent physical examination or, conversely, voluntarily surrender their pilot certificate for one of a lesser grade if they wish to secure a valid medical certificate of a lesser class. Such persons contend that it is unrealistic and unreasonable to require a class of medical certificate of a higher grade than necessary for the flight privilege in which they are engaged, and an undue burden is thus imposed upon them. They also contend that it is equally unreasonable to expect them to voluntarily surrender ratings which have cost them a considerable amount of effort, time, and money to secure, and for which they may have need at some time in the future. The Board considers that there is merit in these contentions.

Recognition has been given to the fact that a pilot may engage in lesser flight activities than those authorized in his pilot certificate in that the duration of the validity of any class medical certificate is directly related to the flight privilege in which a pilot may subsequently engage. It is the Board's view that section 43.41 should be modified to more clearly relate the class of medical certificate required, except when originally qualifying for a particular class of pilot certificate, to the flight privilege in which the pilot is engaged rather than solely to the pilot certificate held.

Since the changes effected by this amendment are less restrictive in nature than the present requirements, and impose no additional burden on any person, notice and public procedure thereon are unnecessary.

Amendment revised section 43.41.

Amendment 43–11

Clarification of Periodic and 100-Hour Inspection Requirements

Adopted: Sept. 17, 1959.
Effective: Sept. 17, 1959.
Published: Sept. 23, 1959.
(24 F.R. 7637)

Currently effective maintenance provisions of Part 43 of the Civil Air Regulations require owners and operators of general aircraft to maintain their aircraft in accordance with Part 18 and to have the aircraft inspected at certain intervals depending upon the type of operation conducted. The requirements for such inspection including the

reference to persons authorized to perform them are contained in the applicable paragraphs of section 43.22 of Part 43. In addition, this section also provides for the acceptability of a required periodic inspection for a required 100-hour inspection. Although it is intended that the accomplishment of a periodic shall be accepted as satisfying the requirements of a 100-hour inspection, the reverse is not intended, as believed by some. The reason for this is that the performance of a periodic inspection requires a certificated mechanic to hold an inspection authorization issued in accordance with the provisions of section 24.43 of Part 24, whereas such inspection authorization is not required of mechanics performing a 100-hour inspection. A certificated mechanic holding an inspection authorization may perform 100-hour inspections in addition to performing periodic inspections. However, even though a 100-hour inspection is performed by a mechanic holding an inspection authorization, it may not be substituted for a periodic inspection since the periodic inspection has a different purpose than the 100-hour inspection.

Part 18 contains the provisions for persons authorized to perform and appprove 100-hour and periodic inspections. In order to preclude further misinterpretations, Part 43 is hereby amended to include specific reference to the pertinent sections of Part 18 which prescribe the authority of persons engaged in the maintenance of aircraft. Additionally, the "Note" at the end of section 43.22 of current Part 43 contains reference to the 100-hour and periodic inspections when related to the expiration or exchange of the old airworthiness certificate for the new type of indefinite duration. This "Note" has served its purpose and is no longer necessary. It is being deleted concurrently with the amendment to section 43.22.

Since this amendment is clarifying in nature and imposes no additional burden on any person, notice and public procedure hereon are unnecessary, and it may be made effective on less than 30 days' notice.

Amendment revised section 43.22(a) and deleted the Note following section 43.22(c)(2).

Amendment 43–12

Clarification of Aircraft Limitations for Student Pilots	Adopted:	Nov. 18, 1959.
	Effective:	Dec. 29, 1959.
	Published:	Nov. 24, 1959. (24 F.R. 9418)

Section 43.55 of Part 43 of the Civil Air Regulations provides that a student shall not pilot an aircraft other than that of the category, class, and type which has been endorsed on his student pilot certificate by a flight instructor. As used in this regulation, the word "type" was intended to mean the make and model of the aircraft which a flight instructor had found the student competent to operate in solo flight. It was not intended that such an endorsement would authorize the student pilot to operate any other make and model of aircraft in solo flight, regardless of its similarity to the aircraft covered by the endorsement.

It is also true that similarity in design of some aircraft, especially those of the same manufacturer, could present substantial difficulty in determining whether two particular aircraft are, or are not, of the same type. The lack of clarification of this point has resulted in some student pilots operating, or attempting to operate, aircraft which they were not competent to fly.

Civil Air Regulations Draft Release No. 59–8 proposed substitution of the words "make and model" in lieu of the word "type". The words "category" and "class" have also been deleted as they are superfluous when the words "make and model" are used.

This amendment should increase safety by eliminating the possibility of misinterpretation of the intent of the regulation.

Interested persons have been afforded an opportunity to participate in the making of this amendment (24 F.R. 5613), and due consideration has been given to all relevant matter presented.

Amendment revised section 43.55.