Federal Aviation Agency

Washington, D.C.

Civil Aeronautics Manual 46

Scheduled Air Carrier Helicopter Certification and Operation Rules

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Supplement No. 1, CAM 46 dated August 1959 — July 15, 1960

SUBJECT: Revisions to CAM 46

This supplement is issued to incorporate into CAM 46 Civil Air Regulations Amendments 46–2 and 46–3 issued since the manual was last printed, and new Special Civil Air Regulation No. SR–425B, Provisional Certification and Operation of Aircraft.

New or revised material is enclosed in black brackets on the pages submitted with this supplement. However, because special regulation SR–425B is new in its entirety, it is not so marked.

Remove the following pages:	*Insert the following new pages:*
III	III
13 and 14	13 through 14–1
	21 through 31



OSCAR BAKKE, *Director*
Bureau of Flight Standards.

ATTACHMENTS.

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46.301 *Pilot recent experience.* No air carrier shall schedule a pilot to serve as such in scheduled air transportation unless within the preceding 30 days he has made at least 3 take-offs and 3 landings in the helicopter of the particular type on which he is to serve, 2 landings of which shall have been made from approaches with simulated one engine inoperative; and, if he is scheduled to serve in such transportation at night, at least one of these landings shall have been made at night.

46.302 *Pilot checks.*

(a) *Line check.* Prior to serving as pilot in command, and at least once each 12 months thereafter, a pilot shall satisfactorily pass a line check in one of the types of helicopters normally to be flown by him. [The line check may be given at any time during the month preceding or following the month in which it becomes due. The effective date of the check, if given within the preceding or following month, shall be the same as if given within the month in which it became due.] This check shall be given by a check pilot who is qualified for the route. It shall consist of at least a scheduled flight between terminals over a route to which the pilot is normally assigned during which the check pilot shall determine whether the individual being checked satisfactorily exercises the duties and responsibilities of a pilot in command.

[(Amendment 46–3, published in 25 F.R. 3850, May 4, 1960, effective June 1, 1960.)]

(b) *Proficiency check.*

[(1) An air carrier shall not utilize a pilot as pilot in command until he has satisfactorily demonstrated to a check pilot or a representative of the Administrator his ability to pilot and navigate helicopters to be flown by him. Thereafter, he shall not serve as pilot in command unless each 6 months he successfully completes a similar pilot proficiency check. The proficiency check may be given at any time during the month preceding or following the month in which it becomes due. The effective date of the check, if given within the preceding or following month, shall be the same as if given within the month in which it became due. Where such pilots serve in more than one helicopter type, the pilot proficiency check shall be given alternately in helicopters of each type flown by him.

[(Amendment 46–2, published in 24 F.R. 7866, September 30, 1959, effective October 29, 1959.)]

(2) The pilot proficiency check shall include at least the following:

(i) Maneuvers consisting of approaches and landings with simulated one engine inoperative, normal take-offs and landings, crosswind landings, climbs and climbing turns, steep turns, maneuvering at minimum speed, rapid descent and quick stops, and a review of the emergency procedures specified in section 46.286.

(ii) An oral equipment examination covering the subjects specified in section 46.281(d). Such examination may be accomplished in the air carrier's ground school or during a proficiency or line check.

46.303 *Pilot route and heliport qualification requirements.*

(a) An air carrier shall not utilize a pilot as pilot in command until he has been qualified for the route on which he is to serve in accordance with paragraphs (b), (c), and (d) of this section and the appropriate instructor or check pilot has so certified.

(b) Each such pilot shall demonstrate adequate knowledge concerning the subjects listed below with respect to each route to be flown:

(1) Weather characteristics,

(2) Navigational facilities,

(3) Communication procedures,

(4) Type of en route terrain and obstruction hazards,

(5) Minimum safe flight levels,

(6) Position reporting points,

(7) Holding procedures,

(8) Pertinent traffic control procedures, and

(9) Congested areas, obstructions, physical layout, and all approach procedures for each regular, provisional, and refueling heliport approved for the route.

(c) Within the preceding 90 days each such pilot shall have made an entry as a member

of the flight crew at each heliport into which he is scheduled to fly. Such entry shall include a landing and take-off under day HVR to permit the qualifying pilot to observe the heliport and surrounding terrain, including any obstructions to landing and take-off. The qualifying pilot shall occupy a seat in the pilot compartment and shall be accompanied by a pilot who is qualified at the heliport.

(d) Each such pilot to be qualified for night operations in the carriage of passengers shall have been qualified in accordance with paragraphs (b) and (c) of this section, and in addition shall have made one trip over the route at night accompanied by a pilot who is qualified over the route for such operations.

46.304 *Maintenance and re-establishment of pilot route and heliport qualifications for particular trips.*

(a) To maintain pilot route and heliport qualifications for day operations, each pilot being utilized as pilot in command, within the preceding 3-month period, shall have made at least one trip as pilot or other member of the flight crew between terminals into which he is scheduled to fly.

(b) To maintain pilot route and heliport qualifications for night operations, each pilot being utilized as pilot in command, within the preceding 30 days shall have made at least one trip during the hours of daylight as pilot or other member of the flight crew between terminals into which he is scheduled to fly.

(c) In order to re-establish pilot route and heliport qualifications after absence from a route or a heliport thereon for a period in excess of 3 months, a pilot shall comply with the provisions of section 46.303.

Flight Time Limitations

46.320 *Flight time limitations.*

(a) An air carrier shall not schedule any flight crew member for duty aloft in scheduled air transportation or in other commercial flying if his total flight time in all commercial flying will exceed the following flight time limitations:

(1) 1,000 hours in any year,

(2) 100 hours in any month,

(3) 30 hours in any 7 consecutive days.

(b) An air carrier shall not schedule any flight crew member for duty aloft for more than 8 hours during any 24 consecutive hours unless he is given an intervening rest period at or before the termination of 8 scheduled hours of duty aloft. Such rest period shall equal twice the number of hours of duty aloft since the last preceding rest period, and in no case shall the rest period be less than 8 hours.

(c) When a flight crew member has been on duty aloft in excess of 8 hours in any 24 consecutive hours he shall, upon completion of his assigned flight or series of flights, be given at least 16 hours for rest before being assigned any further duty with the air carrier.

(d) Each flight crew member engaged in scheduled air transportation shall be relieved from all duty with the air carrier for at least 24 consecutive hours during any 7 consecutive days.

(e) No flight crew member shall be assigned any duty with an air carrier during any rest period prescribed by this part.

(f) A flight crew member shall not be considered to be scheduled for duty in excess of prescribed limitations, if the flights to which he is assigned are scheduled and normally terminate within such limitations, but due to exigencies beyond the air carrier's control, such as adverse weather conditions are not at the time of departure expected to reach their destination within the scheduled time.

Flight Operations

46.351 *Operational control.* The air carrier shall be responsible for operational control.

(a) *Responsibility of the air carrier.* The air carrier shall be responsible for:

(1) The exercise of authority as necessary over the initiation, continuation, and diversion or termination of a flight; and

(2) Monitoring the progress of each flight and providing the pilot with all information necessary for the safety of the flight.

(b) *Responsibility of the pilot in command.* The pilot in command shall be responsible for the preflight planning and the operation of the flight in compliance with the applicable regulations of this subchapter and operations specifications. During flight he shall be in command of the helicopter and crew and shall be responsible for the safety of the passengers, crew members, cargo, and helicopter.

46.352 *Operations notices.* Each air carrier shall notify the appropriate operations personnel promptly of all changes in equipment and operating procedures, including known changes in the use of navigational aids, heliports, air traffic control procedures

Appendix A

Special Civil Air Regulations
Which Affect Part 46

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.

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

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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.

(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.