[Reprinted from the FEDERAL REGISTER of April 5, 1952]

CIVIL AIR REGULATIONS

PART 24—MECHANIC AND REPAIRMAN CERTIFICATES

Effective June 15, 1952

CIVIL AERONAUTICS BOARD

WASHINGTON, D. C.

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PART 24—MECHANIC AND REPAIRMAN CERTIFICATES

Adopted by the Civil Aeronautics Board at its office in Washington, D. C., on the 31st day of March 1952.

Currently effective Part 24 establishes requirements for the certification and rating of aircraft mechanics and aircraft engine mechanics. This revision of Part 24 establishes certain new requirements for the issuance of mechanic certificates and ratings, delineates the privileges of such certificates, and establishes basic operating rules for the holders thereof. It also establishes a new classification of airman to be known as a repairman and provides for certification as such.

Mechanic certificates are to be issued with airframe and powerplant ratings only, and the standards prescribed for their issuance are similar to the current aircraft and engine ratings. Each applicant must take a practical examination appropriate to the rating sought. It is intended that this examination shall be designed to permit an applicant to demonstrate that he possesses a well-rounded, basic understanding of the work which the rating sought authorizes him to perform. All examinations serving to qualify an individual for a mechanic certificate shall be conducted by a representative of the Administrator to make certain that all applicants meet the same general standards.

Under the terms of this revision the airframe and powerplant mechanic shall have all of the privileges of the present aircraft and aircraft engine mechanic. In addition, an airframe mechanic is privileged to return airframes and their components to service after minor repair or minor alteration; a powerplant mechanic is privileged to return powerplants and propellers and their components to service after minor repair or minor alteration. In order to assure that an applicant who is not a graduate of an approved school is properly qualified to discharge his duties and responsibilities under the terms of his certificate, the experience requirements have been increased from 12 to 18 months for either an airframe or powerplant rating, and these requirements provide that an applicant desiring both ratings must show at least 30 months of concurrent experience. It should be noted that current holders of mechanic certificates are deemed to have met these requirements.

The regulations in this revision also specify the recent experience requirements which must be met by each certificated mechanic before he is considered qualified to exercise the privileges of his certificate and ratings. These requirements recognize the fact that some holders of mechanic certificates exercise the privileges of such certificates in a supervisory manner only, and that recent experience acquired in this manner is considered satisfactory.

A classification of airman to be called a "repairman" has been established in this part. For the performance of work on airframes or engines at a repair station, a properly certificated mechanic is sufficient. However, a repairman is required at a repair station which is authorized to perform work on instruments or to perform major alterations and repairs on propellers. The necessity for this is established by the Civil Aeronautics Act of 1938, as amended, in that an approved rated airman must be in charge of the inspection, maintenance, overhaul, or repair of United States aircraft or their components. An airframe or powerplant mechanic as such is not authorized to perform instrument or major propeller work, unless he is also employed and certificated as a repairman.

A repairman will be employed and certificated for a particular job, and he is not authorized to exercise his privileges except while carrying out his duties as required by that job. As it is considered that in most cases no one below the level of a shop foreman or department head need be certificated, it is anticipated that few repairmen will be required by any one repair station.

Appropriately certificated air carriers, by the terms of the revision of Part 18, are no longer required to obtain a repair station certificate to perform their own maintenance and overhaul. Therefore, in order to assure that such air carriers have properly rated personnel in charge of their instrument and propeller shops, provision has been made for the recommendation and certification of repairmen in the same manner as by repair stations.

A factory mechanic rating has been omitted from this revision of Part 24 since revised Part 18 now permits a manufacturer to rebuild or alter products for which he holds a type or production certificate or which are manufactured by him in accordance with appropriate specifications approved by the Administrator.

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

In consideration of the foregoing the Civil Aeronautics Board hereby makes and promulgates a revision of Part 24 of the Civil Air Regulations (14 CFR, Part 24, as amended) effective June 15, 1952, to read as follows:

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AUTHORITY: §§ 24.0 to 24.140 issued under sec. 205, 52 Stat. 984; 49 U. S. C. 425. Interpret or apply sec. 601, 52 Stat. 1007, as amended; secs. 602, 605, 608, 52 Stat. 1008, 1010, 1011; 49 U. S. C. 551, 552, 555, 558.

APPLICABILITY AND DEFINITIONS

§ 24.0 *Applicability of this part.* This part establishes requirements for the issuance of mechanic and repairman certificates and ratings, delineates the privileges of such certificates, and establishes basic operating rules for the holders thereof.

§ 24.1 *Definitions.* (a) As used in this part terms are defined as follows:

(1) *Aircraft.* An aircraft shall mean any contrivance now known or hereafter invented, used, or designed for navigation of or flight in the air, including airframe, powerplant, propeller, and appliances.

(2) *Aircraft engine.* An aircraft engine shall mean an engine used, or intended to be used, for propulsion of aircraft, and includes all parts, appurtenances, and accessories thereof other than propellers.

(3) *Airframe.* Airframe shall mean any and all kinds of fuselages, booms, nacelles, cowlings, fairings, empennages, airfoil surfaces, and landing gear, and all parts, accessories, or controls, of whatever description, appertaining thereto, but not including powerplants and propellers.

(4) *Alteration.* An alteration shall mean any appreciable change in the design of an airframe, powerplant, propeller, or appliance.

(5) *Appliances.* Appliances shall mean instruments, equipment, apparatus, parts, appurtenances, or accessories, of whatever description, which are used, or are capable of being or intended to be used, in the navigation, operation, or control of aircraft in flight (including communication equipment, electronic devices, and any other mechanism or mechanisms installed in or attached to aircraft during flight, but excluding parachutes), and which are not a part or parts of airframes, powerplants, or propellers.

(6) *Appropriately certificated air carrier.* An appropriately certificated air carrier shall mean an air carrier holding an air carrier operating certificate, and which is required, either by its operating certificate or by operations specifications approved by the Administrator, to provide for a continuous airworthiness maintenance and inspection program to be performed by the carrier in accordance with its maintenance manual.

(7) *Approved.* Approved, when used either alone or as modifying such words as aircraft, airframe, powerplant, propeller, appliance, method, or technique, shall mean approved by the Administrator of Civil Aeronautics in accordance with the applicable requirements of this subchapter.

(8) *Authorized representative of the Administrator.* An authorized representative of the Administrator shall mean any employee of the Civil Aeronautics Administration or any private person, authorized by the Administrator to perform particular duties of the Administrator under the provisions of this part.

(9) *Certificated mechanic.* A certificated mechanic shall mean an individual holding a valid mechanic certificate with appropriate ratings issued by the Administrator.

(10) *Certificated repair station.* A certificated repair station shall mean a facility for the maintenance, repair, and alteration of airframes, powerplants, propellers, or appliances, holding a valid repair station certificate with appropriate ratings issued by the Administrator.

(11) *Certificated repairman.* A certificated repairman shall mean an individual holding a valid repairman certificate issued in accordance with Subpart B of this part.

(12) *Component.* A component shall mean a constituent part of an aircraft.

(13) *Maintenance.* Maintenance which includes preventive maintenance, shall mean the inspection, overhaul, repair, upkeep, and preservation of airframes, powerplants, propellers, and appliances, including the replacement of parts.

(14) *Major alteration.* A major alteration of an aircraft or any component thereof shall mean:

(i) An alteration which might cause an appreciable change in its weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness, or

(ii) An alteration which is not accomplished in accordance with accepted practices or cannot be performed by means of elementary operations.

(15) *Major repair.* A major repair to an aircraft or any component thereof shall mean:

(i) A repair which, if improperly accomplished, would adversely affect the structural strength, performance, flight characteristics, powerplant operation, or other qualities affecting airworthiness, or

(ii) A repair which is not accomplished in accordance with accepted practices or cannot be performed by means of elementary operations.

(16) *Minor alteration.* A minor alteration of an aircraft or any component thereof shall mean an alteration other than a major alteration.

(17) *Minor repair.* A minor repair shall mean any repair other than a major repair.

(18) *Powerplant.* Powerplant shall mean an aircraft engine and its component parts, and other parts necessary to properly install such engine in an aircraft, but not the propeller (if used).

(19) *Preventive maintenance.* Preventive maintenance shall mean simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations.[1]

(20) *Propeller.* Propeller shall mean a device for propelling an aircraft through the air, having blades mounted on a power-driven shaft, which when rotated produces by its action on the air a thrust approximately parallel to the longitudinal axis of the aircraft, and shall also include control components normally supplied by the manufacturer of the propeller. It shall also include a system of rotating airfoils which serve either to counteract the effect of the main rotor torque of a rotorcraft or to maneuver a rotorcraft about one or more of its three principal axes.

(21) *Repair.* Repair shall mean the restoration of an airframe, powerplant, propeller, or appliance to a condition for safe operation after damage or deterioration.

SUBPART A—MECHANIC CERTIFICATES

CERTIFICATION RULES

§ 24.5 *Application for certificate.* Application for certificates and ratings shall be made on a form and in a manner prescribed by the Administrator.

§ 24.6 *Issuance.* (a) Mechanic certificates and ratings shall be issued by the Administrator to applicants who meet the requirements of this part.

(b) Pending a review of an application and supporting documents by the Administrator and the issuance of a mechanic certificate and ratings, an authorized representative f the Administrator may, subject to such terms and conditions as the Administrator may specify, issue a temporary mechanic certificate with appropriate ratings to an applicant, if the representative determines that the applicant has met the requirements of this part.

§ 24.7 *Duration.* (a) A mechanic certificate and ratings shall remain in effect until surrendered, suspended, revoked, or otherwise terminated by order of the Board, except that a certificate issued to an individual other than a United States citizen shall remain in effect for only one year: *Provided,* That upon application to the Administrator and upon showing continued compliance with the other requirements of this part, a mechanic certificate may be reissued to an individual other than a United States citizen for additional periods of one year without further demonstration of technical competence. After revocation, and upon request of the Administrator after suspension or termination, the certificate shall be returned to the Administrator.

(b) A temporary mechanic certificate shall remain in effect for 90 days.

[1] The Administrator will publish, as part of Civil Aeronautics Manual 18, the various operations constituting preventive maintenance of the several types of aircraft.

§ 24.8 *Outstanding mechanic certificates and ratings.* After the effective date of this part a person holding a valid mechanic certificate with an aircraft mechanic rating shall be deemed to hold a valid mechanic certificate with an airframe rating, a person holding a valid mechanic certificate with an aircraft engine mechanic rating shall be deemed to hold a valid mechanic certificate with a powerplant rating, and a person holding a valid mechanic certificate with aircraft mechanic and aircraft engine mechanic ratings shall be deemed to hold a valid mechanic certificate with both airframe and powerplant ratings. The Administrator may, in such form and manner as he may establish, require the exchange of outstanding certificates for certificates issued in accordance with the provisions of this part.

§ 24.9 *Display.* When issued to the individual, the mechanic certificate with appropriate ratings shall be kept readily available by the mechanic at all times while exercising the privileges of such certificate, and shall be available for inspection by any authorized representative of the Administrator or the Board, or by any authorized State or local law enforcement officer.

§ 24.10 *Identification.* The holder of a mechanic certificate issued under the provisions of this part shall not, except while engaged in operations conducted by a scheduled air carrier, exercise the privileges conferred by the certificate unless he has in his possession a current airman identification card or other identification card acceptable to the Administrator, which duly describes him. The airman identification card may be obtained from the Administrator who shall prescribe its form and the manner of applying for it.

§ 24.11 *Change of address.* Within 30 days after any change in the permanent mailing address of a holder of a mechanic certificate, the holder shall notify the Administrator in writing of such change. Such notice shall be mailed to the Administrator of Civil Aeronautics, Attention Airman Records Branch, Washington 25, D. C.

GENERAL CERTIFICATE REQUIREMENTS

§ 24.15 *Citizenship.* An applicant shall be a citizen of the United States or of a foreign country which grants or has undertaken to grant reciprocal mechanic certificate privileges to citizens of the United States on equal terms and conditions with citizens of such foreign country.

§ 24.16 *Age.* An applicant shall be at least 18 years of age.

§ 24.17 *Education.* An applicant shall be able to read, write, speak, and understand the English language: *Provided,* That if an applicant is employed by a United States air carrier outside of the United States, such applicant shall not be required to meet this requirement, and in that event his certificate shall be appropriately endorsed by the Administrator.

§ 24.18 *Examinations and tests.* Examinations and tests shall be conducted by an authorized representative of the Administrator at such times and places as the Administrator may designate.

§ 24.19 *Re-examination after failure.* An applicant for a mechanic certificate who has failed any prescribed written or practical examination or test may not apply for re-examination within 30 days after the date of such examination or test unless he presents a statement signed by a certificated mechanic holding an appropriate rating, a certificated ground instructor holding an appropriate rating, or an equally qualified individual acceptable to the Administrator, which attests that the applicant has received an additional 5 hours of instruction in each of the subjects failed and that the applicant is considered competent for re-examination.

§ 24.20 *Application for additional rating.* An applicant for a rating subsequent to the original issuance of a mechanic certificate with appropriate rating shall meet the knowledge, experience, and skill requirements for the rating sought.

§ 24.21 *Substantiation of experience.* An applicant shall submit evidence satisfactory to the Administrator to substantiate the experience qualifications for the mechanic certificate and rating sought.

§ 24.22 *Ratings.* The following mechanic ratings shall be issued:

(a) Airframe;
(b) Powerplant;
(c) Airframe and powerplant.

MECHANICAL KNOWLEDGE, EXPERIENCE, AND SKILL REQUIREMENTS

§ 24.30 *Mechanical knowledge.* An applicant for a mechanic certificate with airframe or powerplant rating shall successfully accomplish a written and oral examination prescribed by the Administrator covering the construction, maintenance, repair, and inspection of aircraft appropriate to the rating sought, the provisions of this part, the applicable provisions of Parts 18 and 43 of this subchapter, and the provisions of Civil Aeronautics Manual 18. The basic principles covering the maintenance, installation, and inspection of propellers shall be included in the powerplant examination.

§ 24.31 *Mechanical experience.* An applicant for a mechanic certificate with either an airframe or powerplant rating shall have had at least 18 months of practical experience with the applicable procedures, practices, materials, tools, machine tools, and equipment generally used in the construction, inspection, maintenance, repair, and alteration of airframes or of powerplants including propellers: *Provided,* That an applicant for an airframe and powerplant rating may be issued such rating, if he has performed concurrently the duties appropriate to both airframe and powerplant ratings for at least 30 months.

§ 24.32 *Graduates of certificated mechanic schools.* A graduate of a certificated mechanic school shall be deemed to have met the experience requirements of this part for a rating if, within 60 days after graduation, he presents an appropriate certificate of graduation: *Provided,* That when a graduate because of unanticipated circumstances is unable to present his certificate within such period, the Administrator, upon receipt of proof to that effect, may extend the 60-day period.

§ 24.33 *Mechanical skill.* An applicant for a mechanic certificate with a particular rating shall, in a manner prescribed by the Administrator, demonstrate his competency to maintain, repair, inspect, and alter any part of an aircraft for which a rating is sought. An applicant's ability to satisfactorily accomplish minor repairs and minor alterations to propellers shall be a part of such demonstration of competency for the powerplant rating.

PRIVILEGES AND LIMITATIONS OF A MECHANIC CERTIFICATE

§ 24.40 *Mechanic privileges; general* A certificated mechanic may perform or supervise the maintenance, repair, inspection, and alteration of an aircraft, or component thereof, for which he is rated, and may perform additional work in accordance with the privileges and limitations stated in §§ 18.10, 18.11, 24.41, and 24.42 of this subchapter: *Provided,* That he shall not supervise the maintenance, repair, inspection, or alteration of or return to service any part of an aircraft for which he is rated unless he has previously performed the particular operation involved in a satisfactory manner or has otherwise established his competency to perform such operation.

§ 24.41 *Airframe rating.* A certificated mechanic with an airframe rating may release the airframe, or any component thereof, for service after he has performed, supervised, or inspected maintenance, minor repair, or minor alteration thereon.

§ 24.42 *Powerplant rating.* A certificated mechanic with a powerplant rating may perform maintenance, minor repairs, or minor alterations to a propeller, and may release the powerplant or propeller, or any component thereof, for service after he has performed, supervised, or inspected maintenance, minor repair, or minor alteration thereon.

OPERATING RULES

§ 24.50 *General.* A certificated mechanic shall not exercise the privileges of his certificate and rating unless he is familiar with the current manufacturers' instructions and the maintenance manuals pertinent to the particular operation to be performed.

§ 24.51 *Recent experience requirements.* A certificated mechanic shall not exercise the privileges of his certificate and ratings unless, within the preceding 24 months he has either:

(a) Been found competent by an authorized representative of the Administrator, or

(b) For at least 6 months during the preceding 24-month period:

(1) Served as a mechanic under the terms of his certificate and ratings, or

(2) Been engaged in the technical supervision of mechanics, or

(3) Been engaged in the executive supervision of maintenance, repair, or alteration of aircraft, or

(4) Been engaged in any combination of subparagraphs (1), (2), and (3) of this paragraph.

SUBPART B—REPAIRMAN CERTIFICATES

CERTIFICATION RULES

§ 24.100 *Classification.* There is hereby established a classification of airman, known as a "repairman," who (a) possesses special qualifications to perform inspection, maintenance, overhaul, or repair of aircraft, aircraft engines, propellers, or appliances, (b) is employed by a certificated repair station or an appropriately certificated air carrier for a particular job requiring such special qualifications, and (c) is recommended for certification by such employer to the Administrator or his authorized representative.

§ 24.101 *Issuance.* A repairman certificate may be issued by the Administrator or his authorized representative to an individual who is found to meet the requirements of this subpart and who has been recommended for such certification by the certificated repair station or appropriately certificated air carrier by whom he is employed.

§ 24.102 *Duration.* A repairman certificate shall be valid until the termination of the holder's employment by the recommending repair station or air carrier, or relief of the repairman from the particular duties for which he was employed and certificated, whichever shall first occur, unless it is sooner suspended, revoked, or otherwise terminated by the Board, after which it shall be returned to the Administrator.

§ 24.103 *Display.* The repairman certificate shall be kept readily available by the repairman at all times while exercising the privileges of such certificate, and it shall be available for inspection by an authorized representative of the Administrator or the Board, or by any authorized State or local law enforcement officer.

§ 24.104 *Identification.* The holder of a repairman certificate issued under the provisions of this subpart shall not, except while engaged in operations conducted by a scheduled air carrier, exercise the privileges conferred by the certificate unless he has in his possession a current airman identification card or other identification card acceptable to the Administrator, which duly describes him. The airman identification card may be obtained from the Administrator who shall prescribe its form and the manner of applying for it.

§ 24.105 *Change of address.* Within 30 days after any change in the permanent mailing address of a holder of a repairman certificate, the holder shall notify the Administrator in writing of such change. Such notice shall be mailed to the Administrator of Civil Aeronautics, Attention Airman Records Branch, Washington 25, D. C.

GENERAL CERTIFICATE REQUIREMENTS

§ 24.110 *Citizenship.* An applicant shall be a citizen of the United States or of a foreign country which grants or has undertaken to grant reciprocal mechanic certificate privileges to citizens of the United States on equal terms and conditions with citizens of such foreign country.

§ 24.111 *Age.* An applicant shall be at least 18 years of age.

§ 24.112 *Education.* An applicant shall be able to read, write, speak, and understand the English language: *Provided*, That if an applicant is employed outside of the United States by an appropriately certificated United States air carrier or a certificated repair station, such applicant shall not be required to meet this requirement, and in that event his certificate shall be appropriately endorsed by the Administrator, or the authorized representative of the Administrator who issued the certificate.

EXPERIENCE AND SKILL REQUIREMENTS

§ 24.120 *General.* The repair station or air carrier by whom the applicant is or will be employed shall certify to the satisfaction of the Administrator or his authorized representative that the applicant is competent to perform the duties of inspection, maintenance, overhaul, or repair of the particular aircraft, aircraft engines, propellers, or appliances with respect to which he is to be employed.

§ 24.121 *Minimum experience.* The applicant shall have had at least 18 months of practical experience with the procedures, practices, inspection methods, materials, tools, machine tools, and equipment generally used in the inspection, maintenance, overhaul, or repair functions of the particular job for which he is to be employed and certificated.

PRIVILEGES AND LIMITATIONS OF A REPAIRMAN CERTIFICATE

§ 24.130 *General.* A certificated repairman may supervise or perform the inspection, maintenance, overhauling, or repair of aircraft, aircraft engines, propellers, or appliances in connection with the particular job for which he was employed and certificated. Such privileges may be exercised only in connection with such duties with the certificated repair station or appropriately certificated air carrier by whom he was recommended and employed.

OPERATING RULES

§ 24.140 *General.* A certificated repairman shall not exercise the privileges of his certificate unless he is familiar both with current manufacturers' or appropriate air carriers' instructions and the maintenance manuals pertinent to the particular operation to be performed.

NOTE: Specific record or reporting requirements subsequently prescribed will be subject to the approval of the Bureau of the Budget pursuant to the Federal Reports Act of 1942.

By the Civil Aeronautics Board.

[SEAL] M. C. MULLIGAN,
Secretary.

[F. R. Doc. 52-3919; Filed, Apr. 4, 1952; 8:49 a. m.]

NOTICE

Advise the Civil Aeronautics Board, Washington 25, D. C., that you have purchased this part of the Civil Air Regulations and that agency will supply you with copies of amendments which have been issued since this printing. Be sure to specify the number of this part, otherwise your request cannot be filled.

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