CIVIL AIR REGULATIONS

PART 1 CERTIFICATION, IDENTIFICATION, AND MARKING OF AIRCRAFT AND RELATED PRODUCTS

Part 1 with Amendment 1-1 (Effective 7/17/1957; Adopted 4/13/1956)

CIVIL AERONAUTICS BOARD
WASHINGTON, D.C.

TITLE 14 -- CIVIL AVIATION

Chapter 1 -- Civil Aeronautics Board
Subchapter A -- Civil Air Regulations

APPLICABILITY AND DEFINITIONS

§ 1.0 *Applicability of this part.* This part establishes administrative requirements for the issuance of type, production, and airworthiness certificates, and for the identification and marking of aircraft and related products.

§ 1.1 *Definitions.* As used in this part, terms are defined as follows:

(a) *Administration*--(1) *Administrator.* The Administrator is the Administrator of Civil Aeronautics.

(2) *Applicant.* An applicant is a person or persons applying for approval of an aircraft or any part thereof.

(3) *Approved.* Approved, when used alone or as modifying terms such as means, devices, specifications, etc., shall mean approved by the Administrator.

(4) *Authorized representative of the Administrator.* An authorized representative of the Administrator means any employee of the Civil Aeronautics Administration or any private person, authorized by the Administrator to perform any of the duties delegated to the Administrator by the provisions of this part.

(5) *Person.* Person means any individual, firm, copartnership, corporation, company, association, joint-stock association, or body politic; and includes any trustee, receiver, assignee, or other similar representative thereof.[1]

(6) *Prime manufacturer.* A prime manufacturer means the person who initiated the design and construction of the product and who applied for the type certificate, or any person to whom a current right to reproduce the product has been transferred.

(7) *Subsidiary manufacturer.* A subsidiary manufacturer means the person who contracted with the prime manufacturer to produce and to supply to the prime manufacturer major assemblies and components which are manufactured in conformity with the prime manufacturer's approved drawings and data for the fabrication of the product.

(8) *United States.* United States means the several States, the District of Columbia, and the several Territories and possessions of the United States, including the Territorial waters and the overlying air space thereof.[1]

(b) *Design.* -- (1) *Aircraft.* An aircraft means any contrivance now known or hereafter invited, used, or designed for navigation of or flight in the air.[1]

(2) *Aircraft engine.* An aircraft engine means an engine used, or intended to be used, for propulsion of aircraft and includes all parts, appurtenances, and accessories thereof other than propellers. [1]

(3) *Appliances.* Appliances 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 parachutes and including communication equipment and any other mechanism or mechanisms installed in or attached to aircraft during flight), and which are not a part or parts of aircraft, aircraft engines, or propellers.[1]

(4) *Product.* The term product, as used in this part, means: (i) An aircraft, (ii) an aircraft engine, (iii) a propeller, or (iv) any appliance specified in this subchapter (the Civil Air Regulations) as eligible for a type certificate.

(5) *Propeller.* A propeller includes all parts, appurtenances, and accessories thereof.1

[1] As defined in section 1 of the Civil Aeronautics Act of 1938, as amended.

§ 1.2 *Type design.* The type design shall consist of such drawings and specifications as are necessary to disclose the configuration of the product and all the design features covered in the requirements of that part of the regulations in this subchapter under which the product is certificated, such information on dimensions, materials, and processes as is necessary to define the structural strength of the product, and such other data as are necessary to permit by comparison the determination of the airworthiness or subsequent products of the same type.

TYPE CERTIFICATES

§ 1.10 *Application.* Any person, whether or not a citizen of the United States, may apply for the issuance of a type certificate. The application for a type certificate for a specified product shall be made upon a form and in a manner prescribed by the Administrator.

§ 1.11 *Products for which issued.* A type certificate may be issued for an aircraft, aircraft engine, propeller, or any appliance for which certification is provided elsewhere in the subchapter.

§ 1.12 *Requirements for issuance.* A type certificate for a product shall be issued when:

(a) The applicant has submitted the type design (see § 1.2), test reports, and computations as may be required by that part of the regulations in this subchapter under which the product is to be certificated.

(b) Upon examination of the type design and the completion of all tests and inspections, the Administrator finds that the type design meets the requirements of the applicable regulations in this subchapter.

§ 1.13 *Location of manufacturing facilities.* No type certificate for a product shall be issued if the manufacturing facilities therefor are located outside the United States, unless where facilities are located outside the United States the Administrator finds that no undue burden on the Government is created in administering applicable requirements of the act or regulations issued thereunder.

§ 1.14 *Transferability.* A type certificate may be transferred or made available to third persons by licensing agreements, and the grantor shall immediately notify the Administrator in writing of any transfer, licensing agreement, or termination thereof. The provisions of § 1.13 shall be complied with.

§ 1.15 *Inspections and tests.* (a) A representative of the Administrator shall be permitted to make such inspections and, in the case of aircraft, flight test as may be necessary to determine compliance with applicable requirements.

(b) A product manufactured under a type certificate only shall be required to undergo inspection by a representative of the Administrator to determine whether individual products conform with the type design.

(c) The manufacturer of a product being manufactured under a type certificate only shall maintain at the place of manufacture such technical data and drawings as may be necessary to determine whether the product or any part thereof conforms to the current type design.

(d) A manufacturer producing a product under the terms of a type certificate without a related production certificate shall provide, for products manufactured after six months from the date of issuance of the type certificate, a production
inspection system approved by the Administrator which will give assurance that each article produced is in conformity with the type design and is in a condition for safe operation.

§ 1.16 *Duration.* A type certificate shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Board.

§ 1.17 *Display.* Type certificates shall be made available for examination by an authorized representative of the Board or of the Administrator.

§ 1.18 *Privileges.* The holder or licensee of a type certificate for a product may, in the case of aircraft, obtain airworthiness certificates (see applicable §§ 1.60 through 1.72), or in the case of engines, propellers, or other products, obtain approval for installation on certificated aircraft; he may obtain a production certificate for such products (see §§ 1.30 through 1.46).

§ 1.19 *Statement of conformity.* (a) The holder of a type certificate only or of a current right to the benefits of a type certificate only under a licensing arrangement, upon the initial transfer by him of the ownership of any product manufactured under such type certificate or upon application for original issuance of an airworthiness certificate for an aircraft, shall furnish to an authorized representative of the Administrator a statement of conformity for such product on a form prescribed by the Administrator. For aircraft manufactured under a type certificate only, there shall be included a statement that the aircraft referred to has been flight checked. For aircraft engines and for variable pitch propellers
manufactured under a type certificate only, there shall be included a statement that the engine or propeller referred to has been subjected by the manufacturer to a final operational check. When a production certificate is held in addition to the type certificate, the provisions of § 1.35 shall apply. The Administrator may consider military acceptance in lieu of a statement of conformity for a product which has been manufactured for the military service.

(b) A statement of conformity shall be furnished to an authorized representative of the Administrator, upon a form and in a manner prescribed by the Administrator, for any prototype product presented for type certification.

CHANGES IN TYPE DESIGN

§ 1.20 *General.* When the type design is changed, the applicant shall demonstrate that the product complies with the requirements of that part of the regulations in this subchapter under which it was certificated.

§ 1.21 *Classification of changes.* Changes shall be classified as minor and major. A minor change shall be one which has no appreciable effect on the weight, balance, structural strength, reliability, operational

characteristics, or other characteristics affecting the airworthiness of the product. A major change shall be one not classified as a minor change.

§ 1.22 *Approval of minor changes.* Minor changes in a type design may be approved in accordance with a method acceptable to the Administrator prior to the submittal to the Administrator of any substantiating or descriptive data.

§ 1.23 *Approval of major changes.* Major changes in a type design shall be approved only after receipt by the Administrator of substantiating data and necessary descriptive data for inclusion in the type design.

§ 1.24 *Service experience changes.* (a) Where the Administrator finds as a result of service experience that an unsafe condition exists with respect to a design feature, part or characteristic of any product, and that such a condition is likely to exist or develop in other products of the same type design, he shall provide notice[2] thereof for all operators of products of that type, and the product shall not thereafter be operated until the unsafe condition has been corrected, unless otherwise authorized by the Administrator under specified conditions and limitations, including inspections. In addition, the provisions of subparagraphs (1) and (2) of this paragraph shall apply.

[2]Notification of any unsafe condition, of the required corrective action, and of compliance dates is usually provided through the medium of Airworthiness Directives issued by the Administrator.

(1) When the Administrator finds that design changes are necessary to correct the unsafe condition of the product, the holder of the type certificate, upon request of the Administrator, shall submit appropriate design changes for the approval of the Administrator.

(2) Upon approval, the descriptive data covering the changes shall be made available by the holder of the type certificate to all operators of products previously certificated under such type certificate.

(b) Where no current unsafe condition exists but the Administrator or the holder of the type certificate finds through service experience that changes in type design will contribute to the safety of the product, the holder of the type certificate may submit appropriate design changes for the approval of the Administrator. Upon approval of such changes the manufacturer shall make available to all operators of the same type of product information on the design changes.

SUPPLEMENTAL TYPE CERTIFICATES

§ 1.25 *Supplemental type certificates.* When a person, other than the holder of the type certificate for a product, alters the product by introducing a major change (see § 1.21) in a previously approved type design, and the change is not so extensive as to require application for a new type certificate (see §§ 3.11 (e), 4b.11 (e), 5.11 (e), 6.11 (e), 13.11 (e), and 14.11 (e) of this chapter), such person shall apply for the issuance of a supplemental type certificate covering the design change. The application shall be made upon a form and in a manner prescribed by the Administrator.

§ 1.26 *Applicable requirements.* The applicant for a supplemental type certificate shall demonstrate that the altered product meets the airworthiness requirements which are applicable to the product involved (see §§ 3.11 (d), 4b.11 (d), 5.11 (d), 6.11 (d), 13.11 (d), and 14.11 (d) of this chapter).

§ 1.27 *Requirements for issuance.* Upon receipt of an application and a satisfactory demonstration of compliance with the applicable requirements in accordance with §§ 1.25 and 1.26, the Administrator shall indicate approval of the change in type design. Such approval together with the previously issued type certificate for the product shall constitute a supplemental type certificate.

§ 1.28 *Privileges.* The holder or licensee of a supplemental type certificate for an altered product may, in the case of aircraft, obtain airworthiness certificates (see applicable §§ 1.60 through 1.72), or in the case of engines, propellers, or other products, obtain approval for installation on certificated aircraft; he may obtain a production certificate (see §§ 1.30 through 1.46) with respect to the change in the type design for which approval was obtained in accordance with § 1.27.

NOTE: The provisions of this section are not intended to affect in any way the proprietary rights of the holder of a type certificate or of a supplemental type certificate.

PRODUCTION CERTIFICATES

§ 1.30 *Application.* Any person, whether or not a citizen of the United States, may apply for the issuance of a production certificate. The application for a production certificate shall be made upon a form and in a manner prescribed by the Administrator.

§ 1.31 *Products for which issued.* A production certificate shall be issued only for products for which a type certificate is currently in effect. The applicant shall hold a currently effective type certificate for the product to be manufactured or shall hold a current right to the benefits of such certificate under a licensing agreement.

§ 1.32 *Requirements for issuance.* A person shall be issued a production certificate when the Administrator finds, after examination of the supporting data and after inspection of the organization and production facilities, that the applicant complies with the requirements of §§ 1.33 through 1.36.

§ 1.33 *Location of manufacturing facilities.* No production certificate for a product shall be issued if the manufacturing facilities therefor are located outside the United States, unless where facilities are located outside the United States the Administrator finds that no undue burden on the Government is created in administering applicable requirements of the act or regulations issued thereunder.

§ 1.34 *Quality control.* The applicant shall show that he is adequately prepared to manufacture and control the quality of any product for which he requests production certification, so that each article shall conform with the design provisions of the pertinent type certificate. A product manufactured under a production certificate may be required to undergo inspection by a representative of the Administrator to determine whether the individual product conforms to the type design.

§ 1.35 *Privileges.* It shall not be necessary for the holder of a production certificate to furnish a statement of conformity for each of the products produced under the terms of the production certificate. The holder of a production certificate may obtain an airworthiness certificate in the case of aircraft (see § 1.67 (a)) and in the case of engines, propellers, or other products may obtain approval for installation on certificated aircraft.

§ 1.36 *Quality control data requirements; prime manufacturer.* The applicant shall submit for approval by the Administrator, as evidence of his ability to control the quality of any product for which he requests a production certificate, data describing the inspection and test procedures necessary to insure that each article produced is in conformity with the type design and is in a condition for safe operation. The data submitted shall include such of the following as are applicable to the product involved:

(a) A statement describing assigned responsibilities and delegated authority of the quality control organization, together with a chart indicating the functional relationship of the quality control organization to management and to other organizational components and indicating the chain of authority and responsibility within the quality control organization.

(b) A description of inspection procedures applying to raw materials, outside purchased items, and parts and assemblies produced by subsidiary manufacturers. The information shall include the methods used to insure acceptable quality of parts and assemblies which cannot be completely inspected for conformity and quality when delivered to the prime manufacturer's plant.

(c) A description of the methods used for production inspection of individual parts and complete assemblies, including the identification of any special manufacturing processes involved, the description of the means used to control such processes, a description of the final test procedure for the complete product, and, in the case of aircraft, a copy of the manufacturer's production flight test procedure and checkoff list.

(d) An outline of the materials review system, including the procedure for recording review board decisions and disposing of rejected parts.

(e) An outline of a system by means of which company inspectors are kept currently informed regarding changes in engineering drawings, specifications, and quality control procedures.

(f) A list or chart showing location and type of inspection stations.

§ 1.37 *Information on subsidiary manufacturers.* The prime manufacturer shall make available information regarding all major inspections accomplished by a subsidiary manufacturer for acceptance of parts or assemblies for which the prime manufacturer is responsible.

§ 1.38 *Changes in quality control system.* Subsequent to the issuance of a production certificate, any changes to the quality control system shall be subject to review by the Administrator. The holder of a production certificate shall immediately notify the Administrator in writing of any such changes affecting the data prescribed in § 1.36.

§ 1.39 *Multiple products.* The Administrator may authorize more than one type certificated product to be manufactured under the terms of one production certificate provided that the products have similar production characteristics.

§ 1.40 *Production limitation record.* A production limitation record shall be issued as part of a production certificate. The record shall list the type certificate of every product which the applicant is authorized to manufacture under the terms of a
production certificate. Where different models of a basic type approved under the same type certificate number require different fabrication methods and processes, the Administrator may list the model designation of the product for which authorization is given, as well as the type certificate number, on the production limitation record.

§ 1.41 *Modification of the production limitation record.* The holder of a production certificate desiring the addition of a type certificate and/or model to the production certificate shall submit an application therefor upon a form and in a manner prescribed by the Administrator. The applicant shall comply with the applicable requirements of §§ 1.32 through 1.36 and 1.38.

§ 1.42 *Transferability.* A production certificate shall not be transferred.

§ 1.43 *Inspections and tests.* A representative of the Administrator shall be permitted to make such inspections and, in the case of aircraft, flight tests as may be necessary to determine compliance with the requirements of the regulations in this subchapter.

§ 1.44 *Duration.* A production certificate shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Board, or the location of the manufacturing facility is changed.

§ 1.45 *Display.* A production certificate shall be prominently displayed in the main office of the factory.

§ 1.46 *Responsibility of holder.* The holder of a production certificate shall maintain the quality control system in conformity with the data and procedures approved for the production certificate. He also shall determine that each completed product submitted for airworthiness certification or approval is in conformity with the type design and is in a condition for safe operation.

AIRCRAFT AND PRODUCT IDENTIFICATION

§ 1.50 *Identification.* (a) Each product manufactured under the terms of a type or production certificate shall display permanently such data as may be required to show its identity. The data shall include such of the following items as the Administrator finds appropriate: (1) Manufacturer's name, (2) model designation, (3) manufacturer's serial number (if article is numbered serially), otherwise the date of manufacture, except that articles subject to deterioration as a result of aging (parachutes, parachute flares, etc.), shall bear the date of manufacture in addition to the serial number, if any, (4) type certificate number, (5) production certificate number, (6) capacity or rating.

REPLACEMENT AND MODIFICATION PARTS

§ 1.55 *Applicable rules.* Any person other than the holder of the type certificate producing replacement or modification parts for sale for installation on a type certificated product shall comply with §§ 1.12 (a) and (b), 1.13, 1.15 (a) and (d), 1.20, and 1.50 (also see § 1.25).

NOTE: The provisions of this section are not applicable to parts produced under the terms of a type and/or production certificate, to parts produced by owners or operators for maintaining or altering their own product, or to standard parts (such as bolts and nuts) conforming to established industry or Government specification; e.g., SAE and military specifications, and CAA Technical Standard Orders.

AIRWORTHINESS CERTIFICATES

§ 1.60 *Application.* Any U.S. citizen may apply for issuance of an airworthiness certificate for an aircraft provided that he is the registered owner of the aircraft or his agent. The application for an airworthiness certificate shall be made upon a form and in a manner prescribed by the Administrator.

§ 1.61 *Aircraft categories for which airworthiness certificates are issued.* Airworthiness certificates are issued for aircraft whose type design has been certificated under the normal, utility, acrobatic, or transport categories, for aircraft of the restricted category, and for surplus military aircraft in the limited category. In addition, experimental certificates and special flight permits are issued.

§ 1.62 *Amendment or modification.* An airworthiness certificate may be amended or modified only upon application to the Administrator.

§ 1.63 *Transferability.* An airworthiness certificate shall be transferred with the aircraft.

[§ 1.64 *Duration.* (a) Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Board, an airworthiness certificate shall remain in effect as long as the maintenance requirements of Part 43 of this subchapter are complied with.**]**

(1) *Experimental aircraft.* An experimental certificate shall remain in effect for one year from the date of issuance or renewal, unless a shorter period is established by the Administrator.

(2) *Aircraft maintained under a continuous maintenance system.* An airworthiness certificate issued for an aircraft maintained under an approved continuous maintenance system shall remain in effect without renewal during the period the aircraft is maintained in accordance with such a system.

(3) *Other aircraft.* Except as provided in subparagraphs (1) and (2) of this paragraph, airworthiness certificates on other aircraft shall remain in effect for one year after the date of issuance or renewal. The airworthiness certificate shall be
renewed upon satisfactory completion of the annual inspection elsewhere required in the regulation of this subchapter.

(b) The Administrator may, from time to time, reinspect any aircraft or part thereof to see whether it is in an airworthy condition. The owner, operator, or bailee of the aircraft shall make it available for such inspection upon request.

(c) Upon suspension, revocation, or the general termination by order of the Board of an airworthiness certificate, the owner, operator, or bailee of an aircraft shall, upon request, surrender the certificate to an authorized representative of the Administrator.

§ 1.65 *Display.* An airworthiness certificate shall be carried in the aircraft at all times, and shall be displayed as prescribed by the Administrator.

§ 1.66 *Airworthiness certificates for normal,utility acrobatic, and transport categories.* Aircraft certificated in the normal, utility, acrobatic, and transport categories may be used for the carriage of persons and property for compensation or hire. This provision shall also apply to import aircraft certificated in accordance with Part 10 of this subchapter and § 1.67 (c) of this part.

§ 1.67 *Airworthiness certificated; requirements for issuance.* The requirements for the issuance of airworthiness certificate are stated in paragraphs (a) through (c) of this section.

(a) Aircraft manufactured under a production certificate. An applicant for the original issuance of an airworthiness certificate for an aircraft, whose type design was certificated in categories other than the limited category, manufactured under the terms of a production certificate, may be issued such certificate without further showing. The Administrator may
inspect the aircraft to see if it conforms to the type design.

(b) *Aircraft manufactured under type certificate only.* An applicant for the original issuance of an airworthiness certificate for an aircraft, whose type design was certificated in categories other than the limited category, manufactured under the terms of a type certificate only, shall be issued such certificate upon presentation of a statement of conformity for such aircraft issued by the manufacturer when, upon inspection of the aircraft, the Administrator finds that the aircraft conforms to the type design, and is in a condition for safe operation.

(c) *Import aircraft.* An applicant for the original issuance of an airworthiness certificate for an import aircraft type certificated in accordance with Part 10 of this subchapter shall be issued such certificate when the government of the country where the aircraft was manufactured certifies, or the Administrator finds, that the aircraft conforms to the type design and is in a condition for safe operation.

§ 1.68 *Airworthiness certificates for restricted category aircraft.* Aircraft certificated in the restricted category shall not be used for the carriage of persons or cargo for compensation or hire. For purposes of this section, crop dusting, seeding, and other similar specialized operations are not considered as the carriage of persons or cargo for compensation
or hire. Other special limitations for such aircraft are prescribed under the provisions of Part 8 of this subchapter. This section shall also apply to import aircraft certificated in accordance with Part 10 of this subchapter and § 1.69 of this part.

§ 1.69 *Airworthiness certificates for restricted category aircraft; requirements for issuance.* The requirements for issuance of an airworthiness certificate for an aircraft in the restricted category are as stated in paragraphs (a) and (b) of this section.

(a) *Aircraft manufactured under a production certificate or type certificate only.* An applicant for the original issuance of an airworthiness certificate for an aircraft in the restricted category, type certificated under the provisions of § 8.10 (a) (1) of this subchapter, shall comply with the appropriate provisions of § 1.67.

(b) *Other aircraft.* An applicant for the issuance of an airworthiness certificate for aircraft of the restricted category other than those referred to in paragraph (a) of this section, such as surplus military aircraft and modified civil aircraft, may be issued such certificate when he demonstrates compliance with the provisions of subparagraphs (1) through (3) of this paragraph.

(1) The aircraft has been type certificated under the provisions of § 8.10 (a) (2) of this subchapter, or modified under the provisions of § 8.10 (b) of this subchapter;

(2) The aircraft has been inspected by the Administrator and found by him to be in a good state of preservation and repair and in condition for safe operation; and

(3) The Administrator has prescribed operating limitations in accordance with Part 8 of this subchapter.

§ 1.70 *Multiple airworthiness certification.* Multiple airworthiness certification shall conform to the provisions of paragraphs (a) and (b) of this section.

(a) An aircraft shall be issued an airworthiness certificate in the restricted category and in any one or more of the other airworthiness categories prescribed by the regulations in this subchapter, if the applicant shows compliance with the requirements for each category when the aircraft is in the configuration for that category and if the aircraft can be converted from one category to another by removal or addition of equipment by simple mechanical means.

(b) Any aircraft certificated in the restricted and any other category shall be inspected and approved by an authorized representative of the Administrator, or by a certificated mechanic with an appropriate airframe rating, to determine airworthiness each time the aircraft is converted from the restricted category to another category for the carriage of passengers for compensation or hire, unless the Administrator finds this unnecessary for safety in a particular case.

§ 1.71 *Airworthiness certificate for limited category aircraft.* Airworthiness certificates in the limited category are issued for surplus military aircraft type certificated under Part 9 of this subchapter. Aircraft in the limited category may not be used for the carriage of persons or property for compensation or hire.

§ 1.72 *Airworthiness certificate for limited category aircraft; requirements for reissuance.* An applicant for an airworthiness certificate for an aircraft in the limited category shall show that the aircraft has been previously type certificated in the limited category, and that the aircraft complies fully with the requirements of Part 9 of this subchapter.

§ 1.73 *Experimental certificates.* Experimental certificates are issued for amateur-built aircraft and for aircraft which are to be used for experiment, for exhibition, for air racing, and to show compliance with the regulations in this subchapter for the issuance of type certificates and related purposes.

§ 1.74 *Experimental certificates; requirements for issuance.* The requirements for the issuance of experimental certificates are as stated in paragraphs (a) and (b) of this section

(a) In applying for an experimental certificate the applicant shall submit:

(1) A statement upon a form and in a manner prescribed by the Administrator setting forth the purpose for which the aircraft is to be used,

(2) Sufficient data, such as photographs, to identify the aircraft, and

(3) Upon inspection of the aircraft, any pertinent information found necessary by the Administrator to safeguard the general public.

(b) The Administrator shall prescribe appropriate operating restrictions for the use of experimental aircraft. Such restrictions shall include the prohibition of carrying person or property for compensation or hire.

[§ 1.75 *Experimental certificates; duration*

(a) An experimental certificate shall remain in effect for one year from the date of issuance or renewal, unless a shorter period is established by the Administrator.

(b) The Administrator may, from time to time, reinspect any aircraft or part thereof to ascertain whether it is in airworthy condition. The owner, operator, or bailee of the aircraft shall, upon request, make it available for such inspection.

(c) Upon suspension, revocation, or termination by order of the Board of an experimental certificate, the owner, operator, or bailee of an aircraft shall, upon request, surrender the certificate to an authorized representative of the Administrator.

§ 1.76 *Special flight permits.* A special flight permit may be issued for an aircraft which may not currently meet applicable airworthiness requirements, but which is capable of safe flight, for the purpose of permitting the aircraft to be flown to a base where repairs or alterations are to be made, or to permit the delivery or export of the aircraft, or to permit production flight tests of new production aircraft.

§ 1.77 *Special flight permits; requirements for issuance.* The requirements for the issuance of special flight permits are as stated in paragraphs (a) and (b) of this section.**]**

(a) Where found necessary by the Administrator, an applicant for a special flight permit shall submit a statement in a form approved by the Administrator indicating the purpose of the flight, the proposed itinerary, the duration of authorization requested, the persons to be on board the aircraft, the particulars, if any, in which the aircraft does not comply fully with
the applicable airworthiness requirements, and the restrictions, if any, deemed necessary for safe operation of the aircraft.

(b) The Administrator shall accomplish, or shall require the applicant to accomplish such appropriate inspections or tests as the Administrator may deem necessary in the interest of safety.

(c) Nothing in paragraphs (a) and (b) of this section shall prevent the issuance to an air carrier by the Administrator of a general authorization to conduct ferry flights for specified purposes as provided in

those paragraphs, under such terms and conditions as may from time to time be prescribed by the Administrator.

AIRCRAFT NATIONALITY AND REGISTRATION MARKS

§ 1.100 *General.* The identification of each aircraft shall be marked, and the markings shall be displayed as required in §§ 1.101 through 1.107. No design, mark, or symbol which modifies or confuses the identification marks shall be placed on an aircraft, except with the approval of the Administrator.

§ 1.01 *Display of identification marks.* Identification marks shall be displayed in accordance with the provisions in paragraphs (a) and (b) of this section.

(a) Aircraft registered for the first time after December 31, 1948, shall display identification marks consisting of the Roman capital letter "N", denoting United States registration, followed by the registration number. Other aircraft which display
identification marks containing an airworthiness symbol "C", "R", "X", or "L" and which are operated solely within the United States may display such identification marks until the first time such aircraft are recovered or refinished to an extent necessitating the reapplication of the identification mark. Thereafter, such aircraft, and after December 31, 1950, all aircraft of United States registry operated outside of the United States, shall display identification marks consisting of the Roman capital letter "N", denoting United States registration, followed by the registration number.

(b) When an identification mark including only the Roman capital letter "N" and the registration number is utilized, limited and restricted category aircraft and experimental aircraft shall display the words "limited," "restricted," or "experimental,"
respectively, near each entrance to the cabin or cockpit of the aircraft. These markings shall be in letters not less than 2 inches nor more than 6 inches in height.

§ 1.102 *Location of identification marks.* Identification marks shall be located in accordance with paragraphs (a) through (e) of this section.

(a) *Fixed-wing aircraft.* The requirements of subparagraphs (1) through (3) of this paragraph shall be applicable to fixed-wing aircraft.

(1) *Wing surfaces.* Identification marks shall be displayed on the right half of the upper surface and the left half of the lower surface of the wing structure. As far as possible, the marks shall be located an equal distance from the leading and trailing edges of the wing. The top of the marks shall be toward the leading edge of the wing.

(2) *Vertical tail surfaces.* Identification marks shall be displayed on the upper half of the vertical tail surface. They shall be displayed on both sides of a single tail surface and on the outer sides of multitail surfaces. They may be placed either horizontally or vertically.

(3) *Fuselage surfaces.* Identification marks shall be displayed on the fuselage when the aircraft does not have a vertical tail surface. The marks shall be located on each side of the top half of the fuselage, just forward of the leading edge of the horizontal tail surface. They may be placed either horizontally or vertically.

(b) *Rotorcraft.* The requirements of subparagraphs (1) and (2) of this paragraph shall be applicable to rotorcraft.

(1) *Bottom fuselage surfaces.* Identification marks shall be displayed on the bottom surface of the fuselage or cabin. The top of the marks shall be toward the left side of the fuselage.

(2) *Side fuselage surfaces.* Identification marks shall be displayed below the window lines and as near the cockpit as possible.

(c) *Airships.* The requirements of subparagraphs (1) and (2) of this paragraph shall be applicable to airships.

(1) *Horizontal stabilizer surfaces.* Identification marks shall be displayed on the upper surface of the right horizontal stabilizer and on the under surface of the left horizontal stabilizer. The top of the marks shall be toward the leading edge of the stabilizer. The marks shall be placed horizontally.

(2) *Vertical stabilizer surfaces.* Identification marks shall be displayed on each side of the bottom half of the vertical stabilizer. The marks shall be placed horizontally.

(d) *Spherical balloons.* Identification marks for spherical balloons shall be displayed on two places diametrically opposite, and shall be located near the maximum horizontal circumference of the balloon.

(e) *Nonspherical balloons.* Identification marks for nonspherical balloons shall be displayed on each side. They shall be located near the maximum cross section of the balloon, immediately above either the rigging band or the points of attachment of the basket or cabin suspension cables.

§ 1.103 *Measurements of identification marks.* The measurements of identification marks shall conform to the provisions of paragraphs (a) through (d) of this section.

(a) *Fixed-wing aircraft.* The requirements of subparagraphs (1) and (2) of this paragraph shall be applicable to fixed-wing aircraft.

(1) *Wing surfaces.* The height of the identification marks on the wings shall be at least 20 inches.

(2) *Fuselage and vertical tail surfaces.* Identification marks shall be such as to leave at least a margin of 2 inches along each edge of the surface. Within these stipulations, the marks shall be as large as practicable, except that this rule shall not be interpreted as requiring the use of marks exceeding 6 inches in height or permitting the use of marks smaller than 2 inches in height. The letters and numbers of each separate group of identification marks shall be of equal height.

(b) *Rotorcraft.* The requirements of subparagraphs (1) and (2) of this paragraph shall be applicable to rotorcraft.

(1) *Fuselage or cabin bottom surfaces.* Identification marks shall be at least 4/5 as high as the fuselage is wide, but need not be more than 20 inches high.

(2) *Fuselage or cabin side surfaces.* Identification marks shall conform to requirements stipulated in subparagraph (a) (2) of this section.

(c) *Lighter-than-air aircraft.* The requirements of subparagraph (1) of this paragraph shall be applicable to lighter-than-air aircraft.

(1) On each airship, spherical balloon, or nonspherical balloon identification marks shall be at least 20 inches high.

(d) *All aircraft.* The requirements of subparagraphs (1) through (3) of this paragraph shall be applicable to all aircraft.

(1) *Width.* Identification marks shall be 2/3 as wide as they are high with the exception of number "1" which shall be 1/6 as wide as it is high.

(2) *Thickness.* Identification marks shall be formed by solid lines of thickness equal to 1/6 of the character height.

(3) *Spacing.* The space between the identification numbers and letters shall be not less than 1/4 of the character width.

§ 1.104 *Color.* On each aircraft, identification marks shall contrast in color with the background.

§ 1.105 *Affixation.* On each aircraft, identification marks shall be painted or shall be affixed by such other means as will insure a similar degree of permanence and legibility, except that aircraft intended for immediate delivery to a foreign purchaser may display identification marks affixed with readily removable material.

§ 1.106 *Design.* On each aircraft, identification marks shall have no ornamentation.

§ 1.107 *Maintenance.* On each aircraft, identification marks shall be kept clean and legible at all times.

§ 1.108 *Identification marks for nonconventional aircraft.* The identification marking rules prescribed in §§ 1.101 through 1.107 are intended to apply to conventional aircraft as they are know today. When aircraft are developed which do not conform to the general configuration of present-day aircraft, a procedure for identification marking shall be prescribed by the Administrator.

§ 1.109 *Identification marks for export aircraft.* An aircraft manufactured in the United States for delivery outside the United States or its possessions may display such identification marks as are required by the State of registry of the aircraft. Such aircraft shall be operated only for the purpose of test and demonstration flights for a limited period of time or while in necessary transit to the purchaser.

§ 1.110 *Removal of aircraft identification marks.* When an aircraft of United States registry is sold to a citizen of a foreign country, the United States identification marks must be removed from such aircraft by the United States registered owner or his agent prior to its delivery to the purchaser.