U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ORDER 8130.2H

02/04/2015

National Policy

SUBJ: Airworthiness Certification of Products and Articles

This order establishes procedures for accomplishing original and recurrent airworthiness certification of aircraft and related products and articles. The procedures contained in this order apply to Federal Aviation Administration (FAA) manufacturing aviation safety inspectors (ASI), to FAA airworthiness ASIs, and to private persons or organizations delegated authority to issue airworthiness certificates and related approvals.

Suggestions for improvement of this order may be submitted using the FAA Office of Aviation Safety (AVS) directive feedback system at http://avsdfs.avs.faa.gov/default.aspx, or FAA Form 1320-19, Directive Feedback Information, found in appendix I to this order.

David Hempe
Manager, Design, Manufacturing, &
Airworthiness Division
Aircraft Certification Service

Table of Contents

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Paragraph *Page*

Chapter 4. Special Airworthiness Certification

Section 1. General Information

Section 2. Restricted Airworthiness Certification

Section 3. Multiple Airworthiness Certificates

Section 4. Limited Airworthiness Certification

Table of Contents (Continued)

Table of Contents (Continued)

Paragraph *Page*

Section 9. Experimental Amateur-Built Airworthiness Certifications

Section 10. Certification and Operation of Aircraft Under the Experimental Purpose of Exhibition or Air Racing

Section 11. Certification and Operation of Aircraft Under the Experimental Purpose(s) of Research and Development, Showing Compliance With Regulations, Crew Training, Market Surveys, and Operating Kit-Built Aircraft

Table of Contents (Continued)

Paragraph *Page*

Section 12. Provisional Airworthiness Certification

Section 13. Special Flight Permits

Table of Contents (Continued)

Table of Contents (Continued)

Table of Contents (Continued)

Paragraph *Page*

Chapter 7. Special Flight Authorizations (SFA) for Foreign Civil Aircraft

Chapter 8. Processing Forms, Reports, and Certification Files

Table of Contents (Continued)

Paragraph *Page*

Table of Contents (Continued)

Paragraph *Page*

Chapter 1. Introduction

100. Purpose of This Order. This order establishes procedures for accomplishing original and recurrent airworthiness certification of aircraft and related products and articles.

101. Audience. Federal Aviation Administration (FAA) aviation safety inspectors (ASI) and persons or organizations delegated authority to issue airworthiness certificates and related approvals.

102. Where Can I Find This Order. You can find this order on the MyFAA Employee website or the FAA public website at http://www.faa.gov/regulations_policies/orders_notices/. This order is also available on the FAA's Regulatory and Guidance Library website at http://rgl.faa.gov/.

103. Explanation of Policy Changes. This revision—

a. Clarifies the terms "original" and "recurrent," as related to airworthiness certification or approvals.

b. Provides additional information about program letters included with the application for a special airworthiness certificate and former military aircraft.

c. Incorporates changes to chapter 4, section 10, Certification and Operation of Aircraft Under the Experimental Purpose of Exhibition or Air Racing.

d. Incorporates numerous changes originating from input through the directive feedback system.

e. Incorporates changes to several sections related to the issuance of operating limitations.

104. Cancellation. The following are cancelled upon the effective date of this order:

a. FAA Order 8130.2G, *Airworthiness Certification of Aircraft and Related Products*, dated August 31, 2010.

b. All clarification or deviation memorandums issued for FAA Order 8130.2, and all previous revisions dated February 4, 2015 or earlier.

c. FAA Order 8130.20, *Registration Requirements for the Airworthiness Certification of U.S. Civil Aircraft*, dated December 24, 1990.

d. FAA Order 8130.29A, *Issuance of a Special Airworthiness Certificate for Show Compliance and/or Research and Development Flight Testing*, dated June 29, 2007.

e. FAA Order 8130.31, *Issuance of Special Airworthiness Certificates for Replicas of the 1903 Wright Flyer Aircraft*, dated April 2, 2003.

105. Effective Date. This order is effective March 31, 2015.

Chapter 2. General Policies and Procedures

Section 1. General Information

200. Definition of the Term "Airworthy" for U.S. Type-Certificated Aircraft. The FAA must find that an aircraft is airworthy before issuing an airworthiness certificate. Two conditions must be met for an aircraft to be considered "airworthy." Title 49 of the United States Code (49 U.S.C.) 44704 and Title 14 of the Code of Federal Regulations (14 CFR) part 21, Certification Procedures for Products and Parts, state the conditions necessary for issuance of an airworthiness certificate:

a. The aircraft must conform to its type design. For the purpose of airworthiness, conformity to the type design is considered attained when the aircraft configuration and the engine, propeller, and articles installed are consistent with the drawings, specifications, and other data that are part of the type certificate (TC). This includes any supplemental type certificate (STC) and repairs and alterations incorporated into the aircraft.

b. The aircraft must be in a condition for safe operation. This refers to the condition of the aircraft relative to wear and deterioration, for example, skin corrosion, window delamination/crazing, fluid leaks, and tire wear.

> **Note 1:** If either of these conditions are not met, the aircraft is not considered airworthy.
>
> **Note 2:** Aircraft presented for the issuance of a certificate under § 21.191 do not need to conform to their type design, but must be in a condition for safe operation.

201. Representatives of the FAA Authorized to Issue Airworthiness Certificates and Related Approvals.

a. Consistent with applicable Aircraft Certification Service (AIR) policies and instructions, an FAA manufacturing or airworthiness ASI is authorized to issue airworthiness certificates and related approvals covered in this order.

b. The FAA is authorized under part 183, Representatives of the Administrator, to designate private persons or organizations to act as representatives of the Administrator to issue airworthiness certificates and related approvals. A designated manufacturing inspection representative (DMIR) or designated airworthiness representative (DAR) may issue standard and special airworthiness certificates, airworthiness approvals, and export approvals, and may perform certain other examinations, inspections, and testing services relative to certification functions in the areas of manufacturing and maintenance. ASI certification functions will be delegated to the fullest extent practical, but not to the extent an advisor's technical skills are jeopardized. The designee's Certificate of Authority must specify the type and limitation of authority granted.

c. The FAA is authorized under part 183, subpart D, Organization Designation Authorization, to delegate specific functions to organizations on behalf of the FAA related to engineering, manufacturing, operations, airworthiness, or maintenance for the purpose of issuing airworthiness certificates and related approvals. Refer to FAA Order 8100.15, *Organization Designation Authorization Procedures*, for further information on organization designation authorizations (ODA).

202. Responsibilities of FAA ASIs and Designees.

a. The procedures in this order cover original airworthiness certification for which FAA manufacturing ASIs are primarily responsible, and recurrent airworthiness certification for which FAA airworthiness ASIs are primarily responsible. FAA manufacturing and airworthiness ASIs may assist each other by mutual agreement.

b. The FAA designees, within the limits of their authority, are authorized to issue original or recurrent airworthiness certificates and related approvals. They are responsible for determining that the products or articles submitted to them are airworthy and meet any other specified requirements. They also are responsible for the completeness, accuracy, and processing of all official documents and paperwork as provided for in this order. All actions taken by the designees on behalf of the FAA are subject to the monitoring, review, and approval of the supervising ASIs.

c. ASIs are responsible for training and supervising designees assigned to them regarding airworthiness certification procedures and all related documentation. The supervising ASI should also ensure designees have been provided (or have access to) the appropriate regulations, instructions, and forms necessary for the performance of their designated duties.

d. ASIs will supervise and maintain surveillance over the certification activities accomplished by designees to ensure all certifications and approvals comply with the applicable rules, policies, and procedures.

> **Note:** In this order, the term "FAA" or "ASI," as it relates to airworthiness certification activity, refers to the FAA airworthiness inspector (that is, manufacturing and airworthiness) and that person's authorized designee. Designees will perform only authorized functions on behalf of their managing office and FAA advisor.

e. Before a designee can issue a special airworthiness certificate or a special flight permit, they should obtain in writing from the geographically responsible (where the certification takes place) Manufacturing Inspection District Office (MIDO), Flight Standards District Office (FSDO), or Certificate Management Office (CMO) that the limitations are acceptable, including any additional limitations and areas of operation the FAA considers necessary for safety.

203. Possession and Display of Airworthiness Certificates. Any airworthiness certificate issued to a U.S.-registered civil aircraft must be displayed at the cabin or cockpit entrance so the certificate is legible to passengers or flightcrew members (part 91, General Operating and Flight Rules, § 91.203(b)).

204. Aircraft Registration. The procedures for aircraft registration and issuance of registration numbers are contained in part 47, Aircraft Registration. The registration of aircraft is not a function of airworthiness certification; however, U.S. registration is a prerequisite for issuance of an airworthiness certificate. The FAA must ensure an aircraft presented for airworthiness certification is properly registered (49 U.S.C. 44704(d) and 14 CFR 21.173). A Certificate of Aircraft Registration (Aeronautical Center Form 8050-3 or 8050-6), query from an official FAA registry database, or email/telephone confirmation from the Flight Standards Service, Aircraft Registration Branch (AFS-750) are acceptable to verify registration. The pink copy of Aeronautical Center Form 8050-1, Aircraft Registration Application, cannot be used to verify registration. If the certificate of aircraft registration does not have an expiration date or if the registration is expired, the aircraft is not eligible for an airworthiness certificate.

205. Size of Aircraft Nationality and Registration Marks.

a. Nationality and registration marks displayed on all aircraft, with the exception of aircraft covered in part 45, Identification and Registration Marking, § 45.29(b)(1)(iii) and (b)(2), must be at least 12 inches high in accordance with § 45.29. However, certain aircraft may display smaller registration marks as identified in § 45.29(b)(1)(i) and (b)(3) until the aircraft are repainted, restored, or changed. Once these aircraft are repainted or the marks are repainted, restored, or changed, 12-inch-high registration numbers must be displayed.

b. FAA inspectors should be alert for newly repainted aircraft registration marks and ensure the marking is consistent with § 45.29. An investigation should be initiated whenever an FAA inspector finds that an aircraft has not been marked with 12-inch-high registration numbers in accordance with § 45.29(b)(1)(i) or (b)(3).

c. Nationality and registration marks of at least 3 inches high may be displayed on an aircraft issued an experimental certificate under § 21.191(d), (g), or (i) to operate as an exhibition aircraft or an amateur-built aircraft, or when the aircraft maximum cruising speed does not exceed 180 knots calibrated airspeed. Marks of at least 3 inches high also may be displayed on airships, spherical balloons, nonspherical balloons, powered parachutes, and weight-shift control aircraft in accordance with § 45.29.

d. When marks include only the Roman capital letter “N” and the registration number is displayed on limited, restricted, light-sport, experimental, or provisionally certificated aircraft, the operator must also display on that aircraft near each entrance to the cabin, cockpit, or pilot station, in letters not less than 2 inches nor more than 6 inches high the words “limited,” “restricted,” “light-sport,” “experimental,” or “provisional,” as applicable per § 45.23.

e. Powered parachute and weight-shift control aircraft must display the marks required by § 45.23. The marks must be displayed horizontally and in two diametrically opposite positions on any fuselage structural member.

206. Display of Nationality and Registration Marks on Antique and Antique Replica Aircraft.

a. Section 45.22(b)(1)(ii) provides, in pertinent part, that small U.S-registered aircraft at least 30 years old, or aircraft that have been issued an experimental certificate for the purpose

of exhibition or operating an amateur-built aircraft and that have the same exterior configuration as a 30-year-old aircraft, may display marks consisting of the Roman capital letter "N" followed by the U.S. registration number or the symbol appropriate to the airworthiness certificate of the aircraft (for example, "C," standard; "R," restricted; "L," limited; or "X," experimental) followed by the U.S. registration number. The symbol used must be appropriate for the airworthiness certificate of the aircraft being certificated, *not* the aircraft being replicated.

> **Example 1:** A Great Lakes 2T-1A aircraft manufactured in 1929 is registered in the United States and has been issued nationality and registration mark N1234. The aircraft has been issued a standard airworthiness certificate. The owner/operator may display the mark NC1234 if so desired.
>
> **Example 2:** An aircraft that has the same exterior configuration as the Great Lakes 2T-1A is registered in the United States and has been issued nationality and registration mark N5678. An experimental airworthiness certificate has been issued under § 21.191(d) or (g). The owner/operator may display the mark NX5678 if so desired.

b. When aircraft are marked as described in § 45.22(b)(1)(ii), the airworthiness and registration certificates will not include the inserted symbol. In example 1 above, the aircraft could be marked NC1234, but the registration and airworthiness certificates would reflect only the N1234.

c. When making a query of the FAA Civil Aviation Registry (FAA Aircraft Registry) computer database, the inserted symbol must be omitted to obtain accurate information concerning the aircraft.

d. In addition, § 45.23(b) provides that when the appropriate symbol is used with the nationality and registration marks in accordance with § 45.22(b)(1)(ii), the word "limited," "restricted," or "experimental" is not required to be displayed on the aircraft.

207. Original and Replacement Aircraft Identification Plates.

a. Original Data Plates. Each aircraft presented for airworthiness certification must meet the requirements of § 21.182. Each aircraft, aircraft engine, propeller, propeller blade, and propeller hub manufactured under a TC or production certificate (PC), or an aircraft to be certificated as an amateur-built, primary kit-built, or light-sport aircraft (LSA), must be identified with the information specified in § 45.13. Manned free balloons are required to comply with § 45.11(d).

b. Replacement Data Plates.

(1) When FAA personnel receive inquiries regarding replacement, removal, or destruction of identification (ID) plates, the sample letter in figure 2-2 of this order may be used as a guide for responding.

(2) When a new ID plate is required, the owner or the owner's authorized representative will contact their local FAA office. The FAA determines whether the request

is valid (refer to paragraph 207d, Misuse of Data Plates, below) and provides a letter to the applicant with the FAA's finding. If the FAA determines that the request is valid, the applicant includes the FAA letter with their request for the replacement data plate from the appropriate manufacturer.

(3) Upon notification by the applicant, which must include the FAA's letter, the product manufacturer may then issue the replacement ID plate.

(4) The old ID plate, when available, must be voluntarily surrendered by the owner with a written statement to the FAA office that authorized the replacement. The FAA office must make a copy of the plate and then either physically destroy it or, if requested by the manufacturer, return it to the manufacturer via certified mail. The FAA office must then submit a letter to AFS-750 stating that the surrendered plate has been destroyed. AFS-750 will include the letter in the permanent aircraft records file.

c. Removal of Data Plates. Section 45.13 permits persons performing maintenance operations under part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration, to remove an aircraft data plate. The removal must be done in accordance with the methods, techniques, and practices acceptable to the FAA. The ID plate removed may be reinstalled only on the product from which it was removed.

d. Misuse of Data Plates.

(1) ASIs should be on alert for any indication of ID plate misuse or suspicious activity, such as the building of a complete aircraft by a person performing work under part 43. Installation of an ID plate by a person performing work under part 43, where the ID plate has been purchased or salvaged from another aircraft, is not approved unless written approval is obtained from the FAA.

(2) Before issuing an airworthiness certificate for an aircraft that appears to be a repair or restoration of an aircraft that previously has been destroyed or demolished, the ASI should seek the assistance of the manager of AFS-750. That office can assist the ASI in determining whether the serial number of the aircraft on which certification is sought is the serial number of an aircraft previously classified as destroyed or demolished by the FAA or the National Transportation Safety Board (NTSB). If the ASI determines that the ID plate comes from a previously destroyed or demolished aircraft, the ASI must initiate an investigation to determine whether a violation of § 45.13(c) or (e) has occurred before the airworthiness certificate may be issued. If a violation of § 45.13(c) or (e) is found, the ASI must deny the airworthiness certificate and initiate an enforcement action.

> **Note:** When the ID plate is surrendered, it is no longer considered personal property.

e. New Data Plates. The appropriate local MIDO, Manufacturing Inspection Satellite Office (MISO), or FSDO may authorize a builder of an aircraft assembled from spare and/or surplus articles under § 21.6(b) to make a new data plate for that aircraft upon a satisfactory showing that the aircraft is airworthy. However, the office must ensure the aircraft is eligible for an airworthiness certificate as built from spare and/or surplus articles in accordance with

§ 21.6, § 21.183, and paragraph 315 of this order before authorizing the builder to make a data plate. The data plate will be made in accordance with part 45 and affixed to the aircraft before the issuance of any airworthiness certificate.

208. Public Aircraft Operations.

a. Public aircraft are defined in 49 U.S.C. 40102(a)(41).

b. If an applicant intends to perform both public and civil aircraft operations, advise them that when changing from a public status to a civil status, the aircraft must meet all civil requirements. Depending on the complexity of its public operations, it is recommended that an operator have written instructions on how it transitions from public to civil status. For additional information, refer to FAA Order 8900.1, *Flight Standards Information Management System (FSIMS)*, volume 3, chapter 14, and Advisory Circular (AC) 00-1.1, *Government Aircraft Operations*.

209. Aircraft Being Removed From a Continuous Maintenance System.

a. No change in the airworthiness certificate is required if the aircraft has a current FAA Form 8100-2, Standard Airworthiness Certificate.

b. Operators of aircraft previously operated under 14 CFR part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations, or part 91, subpart D, Special Flight Operations, and intending to operate the aircraft under part 91, must select, identify, establish, and use an inspection program as prescribed in § 91.409(e), (f), (g), and (h).

c. It also is important for the operator to know the current status of the aircraft relative to applicable requirements; for example, (1) weight and balance data, (2) the flight manual appropriate to the operation, (3) time on life-limited components, and (4) compliance with airworthiness directives (AD). Some carriers have exemptions or adjusted AD compliance times.

210. Operation of Civil Aircraft With a Door Open or Removed for Parachuting, Skydiving, or Other Special Operations.

a. Owners or operators who are interested in obtaining authorization for operation of aircraft with a door open or removed for parachuting or other special operations must forward a written request to the FSDO having jurisdiction over the area in which the operations are to be conducted. The request must contain the following information:

(1) Name and address of the registered aircraft owner;

(2) Make, model, serial, and registration number of the aircraft;

(3) Location where the aircraft normally is based; and

(4) Reason for the aircraft to be operated with a door removed.

b. Aircraft may be approved to operate with a door open or removed by TC, amended TC, STC, authorization in the aircraft's flight manual, or field approval.

(1) Aircraft approved by TC, amended TC, STC, or approved flight manual authorization do not require any additional limitations or authorization from the FSDO.

(2) Aircraft approved to operate by issuance of FAA Form 337, Major Repair and Alteration, must have operating limitations issued. Sample operating limitations are outlined in figure 2-3 of this order. Field approval guidance is in FAA Order 8900.1. The ASI must note on the operating limitations the aircraft make, model, registration and serial number, type of operation authorized, date of issuance, ASI's name, and district office number. On an aircraft that requires removal or opening of a particular door, the ASI must specify in the limitations which door may be removed or opened.

Note: A copy of the limitations must be forwarded to AFS-750.

c. Removal or installation of a cabin door for the specified aircraft is considered maintenance and as such must be accomplished by persons authorized under § 43.3.

d. If operations of rotorcraft with the doors opened or removed obstructs the nationality and registration marks from view, the operator must notify the appropriate managing office in writing detailing the nature of the proposed operation and the proposed dates of operation with doors removed. The managing office will then instruct the operator to affix temporary nationality and registration marks on an authorized surface required by § 45.27(a). The size of the marks must comply with § 45.29(b) unless no authorized surface is large enough for display of marks meeting the size requirements of this section. The rotorcraft would then be marked on the largest authorized surface with marks as large as practicable, as allowed by § 45.29(f). Any remnants of the permanent nationality and registration marks must be obliterated so as not to confuse identification of the rotorcraft with temporary markings. The temporary markings must be able to endure flight operations in various weather conditions. Flight operations must be authorized in writing by the managing office for a specified time and purpose. The managing office will verify the temporary markings comply with part 45 and that the rotorcraft is returned to its permanent marking scheme.

e. Under appendix A to part 43, paragraph (c)(15), a pilot may be authorized to remove or reinstall passenger seats. Removal or installation of control sticks and wheels must be performed in accordance with the applicable sections of part 43.

211. Banner Towing. An aircraft that is airworthy and has an FAA-approved banner tow installation may be operated under a standard airworthiness certificate for banner towing purposes. An aircraft that has a standard airworthiness certificate and is modified for a special purpose operation must be operated under a multiple airworthiness certificate (standard/restricted) when the following conditions occur:

a. The special purpose modification is not approved for standard category use.

b. The aircraft will be operated outside the normal category operating limitations.

212. Former Military Aircraft.

a. Eligibility. Former military aircraft may be eligible for a standard airworthiness certificate or an airworthiness certificate in the restricted or limited category. If a TC has not been issued for the aircraft, it may be eligible for an experimental airworthiness certificate for the purpose of research and development (R&D), crew training, exhibition, or air racing.

b. High-Performance Former Military Aircraft. Some former military aircraft have inherent high risk factors associated with their design, manufacture, maintenance, and operation. These high risk factors must be mitigated. Some aircraft may have high risk factors that may be difficult to mitigate, and consequently may not be eligible for an airworthiness certificate.

c. Demilitarization of Former Military Aircraft. The demilitarization process most likely will involve a change to the aircraft configuration so FAA representatives will not process an application for airworthiness certification unless demilitarization is complete.

(1) The FAA may require that some systems be removed or disabled to establish a condition for safe operation for the intended use. For example, safe operation of guns, cannons, targeting radars, electronic jammers, jettisonable stores, or explosive devices may not be feasible under or consistent with the intended experimental purpose. Potential safety hazards related to these systems include accidental firing of guns, accidental release of stores, accidental operation of radars on the ground, compartment fires, and damage to the airframe. These hazards may pose risks to other aircraft and to persons and property on the ground and may not be able to be adequately mitigated via operating limitations. Although some of these systems may be required to support a valid R&D purpose, the applicant and the ASI need to understand the corresponding safety risks and work closely together to determine the feasibility of mitigating these risks via additional operating limitations.

(2) Former military aircraft imported from any other country require an import permit issued by the Department of Justice, Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF). This permit is granted by the ATF using ATF Form 6, Application and Permit for Importation of Firearms, Ammunition, and Implements of War. In addition, these former military aircraft are required to be demilitarized to clear U.S. Customs and Border Protection. Compliance with demilitarization is evidenced by a completed ATF Form 6A, Release and Receipt of Imported Firearms, Ammunition, and Implements of War. Proof of demilitarization will be verified if the applicant presents copies of ATF Form 6 and ATF Form 6A that have been completed by appropriate officials of the Department of Justice. If the applicant is unable to produce ATF Form 6 or ATF Form 6A for original certification of the aircraft, deny the application.

> **Note 1:** For any questions regarding ATF Form 6 or ATF Form 6A requirements, contact the ATF Firearms and Explosives Imports Branch at the Department of Justice.

Note 2: For an aircraft to be eligible for an airworthiness certificate, it must be listed as an aircraft on the U.S. Customs documentation. For example, if an aircraft is imported as scrap, parts, or a museum piece, it is not eligible for an airworthiness certificate.

(3) For additional information on what items and components are part of the aircraft's weapons system, refer to aircraft maintenance manuals and the related weapons delivery manual. Some aircraft manufacturers may offer guidance on aircraft demilitarization. Some of these systems could be permitted for an experimental R&D certificate, but the related safety issues still have to be addressed, particularly if the aircraft also has an experimental certificate for another purpose. U.S. Air Force Technical Order 00-80G-1, *Make Safe Procedures for Public Static Display*, can be used as a reference.

213. Aircraft Equipped With Explosive Devices or Jettisonable Stores. These types of systems are usually associated with former military aircraft.

a. Airport. An applicant for an experimental certificate must provide objective evidence that the manager of the airport where the aircraft is based has been notified regarding both the presence of jettisonable stores and any explosive devices and the planned operation of the aircraft from that airport.

b. Serviceability of Jettisonable Stores. Jettisonable external fuel tanks or stores systems must be maintained in accordance with the manufacturer's procedures and inspected in accordance with the provisions of the inspection program for the particular aircraft. Only aircraft with a certificate for the purpose of R&D may be operated with functional jettisonable external fuel tanks or stores, and only for testing those stores for aircraft controllability and release. When the testing of the external stores is complete, the stores must be removed or secured so they cannot be jettisoned. The jettisonable systems may only be operational for the time period required for testing those systems. When the jettisonable systems are operational, the aircraft operation must be restricted to a geographical area that meets the requirements of § 91.305, and prohibited from flying over densely populated areas at all times.

c. Ejection Seat System. Ejection seat systems must be maintained in accordance with either the manufacturer's procedures or the procedures specified by a military service using that aircraft model. An ejection seat system may not be modified without approval of the seat or aircraft manufacturer. The ejection seat system must be approved for use in the aircraft by the manufacturer, or by a military service using that aircraft model. The FAA will verify there is a record entry indicating current serviceability of the ejection system, including the status of any dated shelf life articles.

d. Securing Procedures. The applicant must have provisions for securing the aircraft to prevent inadvertent operations of systems that use an explosive device whenever the aircraft is parked.

e. Marking of Explosive Devices. The applicant must have provisions that provide for clear marking and identification of all explosive devices used in any aircraft system. Aircraft markings must be applied externally and indicate that the aircraft is equipped with explosive devices. An airworthiness certificate will not be issued until meeting this requirement.

214. Reserved.

Section 2. Airworthiness Certificates

215. General. FAA Form 8100-2 and FAA Form 8130-7, Special Airworthiness Certificate, will be referred to as being either a standard or a special classification within this order.

216. Classification and Category of Airworthiness Certificates.

a. Standard Classification. FAA Form 8100-2 may be issued for an aircraft that fully complies with all of the requirements for a standard airworthiness certificate in the category of normal, utility, acrobatic, commuter, or transport category, manned free balloons, or any other special classes of aircraft designated by the FAA.

b. Special Classification. FAA Form 8130-7 may be issued for an aircraft that does not meet the requirements for a standard airworthiness certificate. The certificate may be issued for an aircraft that meets the following:

(1) Primary. Aircraft that satisfies the requirements of § 21.184.

(2) Restricted. Aircraft that satisfies the requirements of § 21.185.

(3) Limited. Aircraft that satisfies the requirements of § 21.189.

(4) Provisional. Aircraft that satisfies the applicable requirements of part 21, subpart C, Provisional Type Certificates, and subpart I, Provisional Airworthiness Certificates.

(5) Light-Sport. Aircraft that meets the requirements of § 21.190.

(6) Experimental. Aircraft that meets the requirements of § 21.191.

(7) Special Flight Permits. FAA Form 8130-7 may be issued for an aircraft that does not currently meet applicable airworthiness requirements, but is capable of safe flight, and meets the requirements of §§ 21.197 and 21.199.

217. Replacement, Exchange, or Amendment of Airworthiness Certificates.

a. Replacement.

(1) The FAA may issue a replacement airworthiness certificate when a certificate is declared lost, has been mutilated, is no longer legible, or contains inaccurate and/or erroneous information. The replacement airworthiness certificate must carry the original issue date of the certificate being replaced, preceded by a capital “R” in the Date block of the certificate. Replacement certificates also will be issued when the aircraft registration number has been

changed, and the ASI must forward a copy of the replacement certificate and a copy of the Aeronautical Center Form 8050-64, Assignment of Special Registration Numbers, to AFS-750. In these cases, a new application for airworthiness certification is not required. When issuing a replacement for a special airworthiness certificate, the operating limitations that were on the original certificate will be reissued. The only modification to the limitations allowed is for administrative corrections.

(2) Request for a replacement certificate will be made to the local FAA office or, for air carriers, to the applicable certification office. The registered owner or certificate operator will certify this by submitting a signed statement containing the registration number (N-Number), serial number, make, and model of the aircraft, and a reason the replacement certificate is needed. Replacement of airworthiness certificates must not be accomplished by verbal agreement with the assigned ASIs or through procedures contained in air carriers' manuals that allow the continued operation of an aircraft without an airworthiness certificate. Such actions are contrary to §§ 91.203(b), 121.153(a)(1), and 135.25(a)(1).

(3) A replacement airworthiness certificate may be issued without supporting documentation from AFS-750 if the date of issuance and the airworthiness classification and/or category of the lost or mutilated certificate can be positively established from the aircraft records, or from the remains of the certificate. If there is insufficient data on which to base issuance of the replacement certificate, the ASI will obtain the required data electronically, by telephone, or by mail (such as the application form or previously issued airworthiness certificate) from AFS-750.

(4) Before issuing a replacement certificate, the FAA must review the aircraft records and, if necessary, inspect the aircraft to ensure the applicant's request is justified and the aircraft is eligible for the airworthiness certificate requested.

(5) Both a copy of the replacement certificate and a copy of the registered owner's or certificate operator's request for a replacement certificate (refer to paragraph 217a(2) of this order) or an Aeronautical Center Form 8050-64 (refer to paragraph 217a(1) of this order) must be forwarded to AFS-750.

b. Amendment.

(1) A standard or special airworthiness certificate may be amended when there is—

(a) A modification to the aircraft, such as one that has been approved by an STC or amended TC, that changes the category of the aircraft specified in block 4 of the standard airworthiness certificate.

(b) A change to the exceptions specified in block 5 of the standard airworthiness certificate.

(c) A change in the aircraft model specified in block 2 of the standard airworthiness certificate.

(d) A change in the operating limitations for an aircraft with a special airworthiness certificate.

(e) A change in the aircraft model specified in block "D" of the special airworthiness certificate for those aircraft that have been issued a TC (for example, restricted, primary, limited).

(2) When a certificate is amended, the issuance date will be the current date. Also, the capital letter "A" will be typed in front of the date.

(3) Any amendment of an airworthiness certificate will require submission of FAA Form 8130-6, Application for U.S. Airworthiness Certificate. Refer to paragraph 801 of this order for instructions on completing this form.

(4) Paragraph 219 of this order details further information on aircraft model changes.

(5) Operating limitations that were issued based on a previous edition of this order will be updated to include limitations contained in the current edition. The FAA does not require a new aircraft certification inspection for this type of administrative paperwork amendment.

c. Exchange. It is highly desirable that all aircraft currently certificated in the standard category carry FAA Form 8100-2 to be consistent with the regulations. Owners and operators of general aviation and air carrier aircraft that still have FAA Form 1362A, Certificate of Airworthiness, should be encouraged to exchange such forms for the standard airworthiness certificate, FAA Form 8100-2. In exchanging these certificates, the operating certificate number will *not* be entered on the revised form. FAA Form 1362A will be attached to and forwarded with a copy of the revised certificate to AFS-750 to establish an official record of the exchange action. The foregoing exchange procedure also applies to FAA Form 8130-7, instead of FAA Form 1362B, Certificate of Airworthiness. The new airworthiness certificate will reflect the date as indicated on FAA Forms 1362A or 1362B, preceded by a capital "E" in the Date block of the certificate. The procedure to exchange a Certificate of Airworthiness (C of A) (ACA-1362 (12-50)) does not apply to an expired C of A issued before July 17, 1956. Block 4 of FAA Form 1362 indicates the date of expiration. Refer to the procedures in chapter 3 of this order for a standard airworthiness certificate.

218. Surrendered Airworthiness Certificate.

a. Airworthiness certificates voluntarily surrendered by written authorization from an aircraft owner or authorized representative must state why the certificate is being surrendered. The authorization and certificate must be forwarded to AFS-750 for retention in the permanent airworthiness files for that aircraft.

b. The airworthiness certificate must be surrendered to the FAA by the aircraft owner or operator as specified in § 21.335(e) when—

(1) The title of a U.S.-owned aircraft passes or has passed to a purchaser in another country, or

(2) The aircraft is leased for operations, registered in another country, and is removed from the U.S. registry.

219. Aircraft Model Change.

a. When an aircraft has been modified to conform to another model of the same make, the aircraft registration, airworthiness certificate, and aircraft ID plate must reflect the new model designation.

b. In addition to the existing ID plate, a new fireproof ID plate as specified in § 45.13 to include the new model designation must be attached as close as physically possible to the original ID plate without obscuring it.

c. To maintain an accurate and continuous operating history for the aircraft, the original ID plate must not be altered in any manner.

d. The normal procedures, including any applicable inspections, apply when processing FAA Form 8130-6. The amended airworthiness certificate will be identified with a capital "A" preceding the current date of the certificate being issued. If ownership of the aircraft has not changed, an application for aircraft registration, reflecting the new model designation, need not be submitted. AFS-750 will issue an amended registration certificate.

220. Recording of Conformity Inspections. FAA Form 8100-1, Conformity Inspection Record, must be used to document conformity inspections during type, production, and airworthiness certification programs (refer to figure 2-4 of this order). FAA Form 8100-1 must be prepared in accordance with the instructions shown on the back of the form.

221. Airworthiness Certification of Manned Free Balloons. Manned free balloons are type-certificated as complete aircraft consisting of three major articles: the envelope, the burner and fuel system, and the basket. The burner and fuel system and basket also are known as the "bottom-end" articles. Airworthiness certificates will not be issued for any individual article. The following are situations that may be encountered in certificating balloons in the standard category:

a. An applicant for a standard airworthiness certificate must present a complete system (three major components) for the purpose of making a determination of airworthiness.

b. Many balloon type certificate data sheets (TCDS) require each individual balloon envelope to be assigned an individual aircraft serial number, aircraft data plate, and aircraft registration number. As such, the balloon manufacturer obtains a registration number from the FAA Aircraft Registry, assigns the N-Number to the aircraft, and reports the aircraft model and serial number to the FAA Aircraft Registry. When an eligible envelope is mated with the necessary articles to make a complete aircraft as described in the applicable TCDS, it is eligible for a standard airworthiness certificate.

c. Manufacturers of manned free balloons may deliver a balloon envelope when the envelope is the only article ordered. A balloon envelope that is manufactured, assembled to a burner and basket, and flight tested is eligible for a standard airworthiness certificate.

The envelope, along with the standard airworthiness certificate and the logbook, may be delivered without the burner and basket. The envelope may then be assembled to a different burner and basket in accordance with the TC. A person may accomplish the interchange of the burner and basket as a preventive maintenance task as described below.

d. A new airworthiness certificate is not required when the aircraft is disassembled and a different burner and basket combination is installed, as allowed by the TC. Reassembly of the envelope and bottom-end articles into a complete aircraft may be performed as preventive maintenance under part 43, appendix A, paragraph (c)(27). The aircraft records must properly reflect the installation of the bottom-end articles and record the new empty weight. The bottom-end components must be in a current "annual or 100-hour" inspection status. The individual records of the bottom-end articles must be maintained. The due date of the next required inspection is determined based on the time the articles are due for inspection.

e. If an envelope is provided only as a replacement article without obtaining a new aircraft serial number, registration number, or ID plate, the installation of the replacement envelope is a maintenance item under part 43. This requires appropriate documentation of the work performed and a return to service entry in the aircraft records by a person authorized to perform the maintenance. The aircraft ID plate, serial number, and registration number are carried over from the previous aircraft envelope.

f. For model changes, refer to paragraph 219 of this order.

222.-223. Reserved.

Section 3. Initial or Subsequent Issuance of Airworthiness Certificates (Original/Recurrent) or Related Approvals

224. General. This section clarifies the terms "original" and "recurrent" as related to the issuance of airworthiness certificates or approvals. Also identified in this section are the FAA offices responsible for performing such functions, including, as appropriate, the cross-utilization of FAA inspection personnel.

a. A variety of airworthiness functions are performed by the FAA. Many of these functions must be accomplished by or coordinated with FAA manufacturing or airworthiness ASIs who have expertise in the particular specialty. These ASIs may include the principal ASI for a major aircraft manufacturer, or the principal maintenance or avionics ASI for an air carrier with aircraft of the same type and complexity as the one for which certification is requested. A number of airworthiness functions can be accomplished by cross-utilization of the FAA. Cross-utilization by the FAA must be employed whenever possible in accordance with the guidance contained in this section.

b. The terms "original" and "recurrent" distinguish between those functions for which FAA manufacturing ASIs have primary responsibility and those for which FAA airworthiness ASIs have primary responsibility.

c. The FAA manufacturing ASI has primary responsibility for the issuance of original airworthiness certificates and approvals. Original certification requires determining that the

products and articles were properly manufactured. The FAA airworthiness ASI has primary responsibility for the issuance of recurrent airworthiness certificates and approvals. Recurrent certification requires determining that the product has been properly maintained or altered while in service.

225. Airworthiness Certification.

a. Original Certification. The term "original certification" applies to the issuance of standard or special airworthiness certificates and approvals, including FAA Form 8130-4, Export Certificate of Airworthiness, for aircraft holding a U.S. TC for the following:

(1) Aircraft or related products and articles that have never held a U.S. airworthiness certificate, except for a special flight permit, or a U.S. Export C of A.

(2) Aircraft or related products and articles that have never held an airworthiness certificate or Export C of A issued by a foreign civil aviation authority (CAA) verifying conformity to the U.S. type design under a bilateral agreement.

(3) Aircraft involved in a certification project such as developing a TC or STC.

b. Recurrent Certification. The term "recurrent certification" applies to the issuance of standard or special airworthiness certificates or approvals for products and articles that do not meet the original certification criteria listed above.

226. Exceptions.

a. Any requests, original or recurrent, for a special airworthiness certificate for LSA, amateur-built, exhibition, R&D, market survey, crew training, air racing, or special flight permit for new aircraft may be handled by FAA manufacturing ASIs, FAA airworthiness ASIs, or their authorized designees. If the responsible office cannot support the certification request, an appropriate delegation should be coordinated with the alternate office.

b. Any requests, original or recurrent, for an experimental certificate showing compliance with the regulations is the primary responsibility of the FAA manufacturing ASI or authorized designee. In remote areas or under special circumstances, an FAA airworthiness ASI may be delegated the authority by AIR if it is established that the person has had experience in type certification programs of a type and complexity comparable to the certificate requested.

c. If a FSDO receives an application for an original airworthiness certification, that FSDO must contact the responsible MIDO to determine if the MIDO will process the application or pass on this responsibility to the FSDO. Similarly, if a MIDO receives an application for a recurrent airworthiness certification, the MIDO must coordinate with the responsible FSDO to determine if the FSDO will process the application or pass on this responsibility to the MIDO.

227. Recording of Conformity Inspections. All inspections conducted by an ASI or designee to determine conformity to an approved type design before an airworthiness certificate is issued must be recorded on FAA Form 8100-1 (refer to paragraph 220 of this order).

228. Eligibility and Evaluation of U.S. Military Surplus Flight Safety-Critical Aircraft Parts (Articles) (FSCAP), Engines, and Propellers.

a. General.

(1) This paragraph provides guidance for use in evaluating and determining the eligibility of U.S. military surplus FSCAPs, engines, and propellers for installation on FAA type-certificated products. Many military surplus FSCAPs have the potential to be approved for installation on aircraft that hold special or standard airworthiness certificates.

(2) Military engines, propellers, and articles are categorized as new or used and fall into one of the following categories:

(a) Dual-use FSCAPs;

(b) Military-unique FSCAPs;

(c) Dual-use military surplus engines, propellers, and articles; and

(d) Military-unique surplus engines, propellers, and articles.

(3) Before these military engines, propellers, and articles are installed on type-certificated products, the installer must determine that they are—

(a) Eligible for installation, and

(b) Airworthy.

(4) There are certain unique design considerations and FAA certification requirements for engines and propellers. Therefore, the eligibility and evaluation processes for military surplus engines, propellers, and articles are described separately in paragraph 228d of this order.

> **Note:** For eligibility and evaluation of non-flight safety-critical articles, safety-critical aircraft articles, engines/propellers, and their articles, use AC 20-62, *Eligibility, Quality, and Identification of Aeronautical Replacement Parts*.

b. Dual-Use FSCAP (New or Used).

(1) Eligibility Screening. New or used dual-use FSCAPs may be eligible for installation on FAA type-certificated products with standard or special airworthiness certificates. The eligibility determination is made based on a review of the following pertinent Department of Defense (DOD) historical records:

(a) FSCAP identification: part number, DOD National Stock Number, and serial number.

(b) Manufacturer, DOD Commercial and Government Entity (CAGE) code, and date of manufacture.

(c) Total time-in-service.

(d) Current status of life-limited FSCAPs.

(e) Time since the last overhaul of each FSCAP that is required to be overhauled on a specified time basis.

(f) Identification of current inspection status, including time since last required inspection or maintenance performed.

(g) Current status of applicable AD and DOD directives (for example, engineering changes, technical orders, or maintenance work orders) including the date and method of compliance. If the AD involves recurring action, the current status includes the time and date when the next action is required.

(h) A list of current major alterations, repairs, or modifications for each FSCAP.

(i) Date any work was accomplished.

(j) Work authentication.

(2) Airworthiness Determination. After determining the FSCAP is eligible to be installed on a type-certificated product, the FSCAP must be evaluated to determine whether it is airworthy.

(a) New Dual-Use FSCAP.

1 For an FSCAP to be installed on products with standard airworthiness certificates, the FSCAP must be airworthy.

2 For an FSCAP to be installed on products with special airworthiness certificates, the FSCAP must be cited in the FAA-accepted maintenance manual and illustrated parts catalog (IPC) specified on the applicable TCDS, and must be in a condition for safe operation.

(b) Used Dual-Use FSCAP.

1 For an FSCAP to be installed on products with standard or special airworthiness certificates, the FSCAP must be evaluated using the procedures for new dual-use FSCAPs above, as appropriate, to determine the FSCAP's airworthiness in accordance with § 43.13.

2 The FSCAP also must be evaluated by persons authorized under § 43.7(a), (c), (d), or (e) by using the following applicable methods, means, or data sources:

(aa) Differences between military and civil versions (for example, possible DOD modifications, alterations, or repairs performed);

(bb) Current manufacturer or DOD technical data and procedures to perform tests and inspections, including current life-limited articles list;

(cc) Comparison of military time and/or cycle count for accumulated operational time versus civil (for example, "Did the military use a different method than civil operators to account for accumulated operational time?");

(dd) Nondestructive tests, as required;

(ee) Bench test or functional test, as required;

(ff) Results of tests and inspections recorded;

(gg) Complete historical and modification, alteration, or repair records;

(hh) Manufacturer's ID plate;

(ii) Flight, maintenance, and/or structural manual(s), and IPC; and

(jj) Instructions for Continued Airworthiness (ICA).

(3) Approval for Installation. Persons authorized under § 43.7 may approve dual-use FSCAPs for installation on type-certificated products if the FSCAP successfully completed the eligibility screening and airworthiness evaluation. The installer must be able to determine that the installation of the FSCAP will leave the product in compliance with all regulations and in a condition for safe operation. The authorized individual completing the eligibility screening and/or airworthiness evaluation must make a maintenance record entry that clearly documents the results of the evaluation. Each maintenance record entry in accordance with § 43.9 should include a description of the work performed, the completion date of the work performed, and the name of the person performing the work or authorized to sign.

c. Military-Unique FSCAP.

(1) Eligibility Screening. New or used military-unique FSCAPs may be eligible for installation on civil aircraft with special airworthiness certificates under § 21.305(c) in conjunction with type certification procedures for a product or in accordance with a TCDS. Military-unique FSCAPs are not eligible for installation on a civil aircraft with a standard airworthiness certificate. The eligibility determination is made based on a review of the following pertinent DOD historical records:

(a) FSCAP identification: part number, DOD National Stock Number, and serial number.

(b) Manufacturer, DOD CAGE code, and date of manufacture.

(c) Total time-in-service.

(d) Current status of life-limited FSCAPs.

(e) Time since the last overhaul of each FSCAP that is required to be overhauled on a specified time basis.

(f) Identification of current inspection status, including time since last required inspection or maintenance performed.

(g) Current status of applicable ADs and DOD directives, (for example, engineering changes, technical orders, or maintenance work orders) including the date and method of compliance. If the AD involves recurring action, the current status includes the time and date when the next action is required.

(h) A list of current major alterations, repairs, or modifications for each FSCAP.

(i) Date any work was accomplished.

(j) Work authentication.

(2) Airworthiness Determination. After determining the FSCAP is eligible to be installed on a type-certificated product with a special airworthiness certificate, the FSCAP must be evaluated to determine whether it is airworthy.

(a) New Military-Unique FSCAP. The FSCAP must be cited in the FAA-accepted, military-approved maintenance manual and IPC specified on the applicable aircraft TCDS and must be in a condition for safe operation.

(b) Used Military-Unique FSCAP.

1 The FSCAP must be cited in the FAA-accepted, military-approved maintenance manual and IPC specified on the applicable aircraft TCDS and must be in a condition for safe operation.

2 The FSCAP also must be evaluated to determine airworthiness in accordance with § 43.13, by using the following applicable methods, means, or data sources:

(aa) Special equipment or test apparatus, as required;

(bb) Current manufacturer or DOD technical data and procedures to perform tests and inspections;

(cc) Comparison of military time and/or cycle count for accumulated operational time versus civil time (for example, “Did the military use a different method than civil operators to account for accumulated operational time?”);

(dd) Nondestructive tests, as required;

(ee) Bench test or functional test, as required;

(ff) Results of tests and inspections recorded;

(gg) Complete historical and modification, alteration, or repair records;

(hh) Manufacturer's ID plate;

(ii) Flight, maintenance, and/or structural manual(s), and IPC; and

(jj) ICA.

(3) Approval for Installation. Persons authorized under § 43.7 may approve military-unique FSCAPs for installation on type-certificated products if the FSCAP successfully completed the eligibility screening and the airworthiness evaluation. The installer must be able to determine that the installation of the FSCAP will leave the product in compliance with the TCDS and in a condition for safe operation. The authorized individual completing the eligibility screening and/or airworthiness evaluation must make a maintenance record entry that clearly documents the results of the evaluation. Each maintenance record entry in accordance with § 43.9 should include a description of the work performed, the completion date of the work performed, and the name of the person performing the work or authorized to sign.

d. Dual-Use and Unique Military Surplus Engines, Propellers, and Their Articles.

(1) New, used, or parted-out military surplus engines, propellers, and articles should not be presumed to be eligible for installation on FAA type-certificated aircraft. Military surplus engines, propellers, and articles are either dual-use or military-unique.

(2) The pertinent accompanying historical records documentation is essential for—

(a) The Defense Reutilization and Marketing Office's (DRMO) public sale of engines, propellers, and articles;

(b) Categorizing the engines, propellers, and articles as dual-use or military-unique; and

(c) Establishing the eligibility and airworthiness of the engine, propeller, and articles.

(3) Military surplus engines and propellers may be type certificated under § 21.17, which requires issuance of a new TC and compliance with the applicable requirements, such as part 33, Airworthiness Standards: Aircraft Engines, for engines and part 35, Airworthiness Standards: Propellers, for propellers. For a military aircraft issued a TC under § 21.25 or § 21.27, the applicable engine or propeller is not required to be issued a separate TC. However, it should be noted that the engine and propeller cannot be certificated separately under these two sections. Any eligible military surplus engines or propellers will be referenced on the aircraft's TCDS. However, military-unique surplus engines, propellers, and articles may be eligible for installation only on civil military surplus aircraft with special airworthiness certificates.

(4) Engines, propellers, and articles are deemed flight safety-critical if their failure, malfunction, or absence could cause a catastrophic failure resulting in loss or serious damage to the aircraft or an uncommanded engine shutdown resulting in an unsafe condition. Such conditions include, but are not limited to, release of engine or propeller debris, propeller separation, and, in rotorcraft, a transient or continuous power loss, or loss of power response. Examples of flight safety-critical engine and propeller articles are life-limited articles, rotating articles, and, for rotorcraft, actuating articles.

(5) Dual-Use Military Surplus Engines, Propellers, and Articles. Dual-use military surplus engines and propellers that hold a TC, and their articles, may be eligible for installation on civil products in accordance with the applicable regulations. The authorized individual completing the eligibility screening and/or the airworthiness evaluation should make a record entry to document the result(s).

(a) Eligibility Screening. New or used dual-use engines, propellers, and articles may be eligible for installation on FAA type-certificated civil or surplus military aircraft with standard or special airworthiness certification. A U.S. TC must have been issued for a corresponding civil model engine or propeller under § 21.21 at the time of manufacture, or a U.S. aircraft TC must have been issued and the engines or propellers referenced in the aircraft TCDS under § 21.27 or § 21.25. The eligibility determination is made based on a review of the following pertinent historical records:

1 Engine, propeller, and article ID (article part number and serial number and manufacturer).

2 Contract or purchase order number under which the engine, propeller, or article was manufactured.

3 Evidence of engine, propeller, and article status, for example, serviceable or unserviceable, in accordance with DOD Form (DD Form) 1574-1, Serviceable Label - Materiel, or Department of the Army (DA) Form 2410, Component Removal/Repair/Install/Gain/Loss Record.

4 Complete historical records maintained by the military, the manufacturer, and any other prior owner(s), pertaining to inspection, modification, repair, alteration, maintenance, and operation of the engine from the time of acceptance by the military, including, but not limited to, DA Form 2408-5, Equipment Modification Record, and DA Form 2408-16, Aircraft Component Historical Record. The maintenance records should also include the date on which the work was accomplished and work authentication.

5 Current status of applicable ADs and DOD directives (for example, engineering changes, technical orders, or maintenance work orders) including the date and method of compliance; and, if the AD involves recurring action, the time and date when the next action is required.

(b) Airworthiness Determination. After determining the article is eligible to be installed on a type-certificated product, the article must be evaluated to determine whether it is airworthy.

1 New Dual-Use Engines, Propellers, and Articles.

(aa) For engines, propellers, and articles to be installed on aircraft with standard airworthiness certificates, each engine, propeller, and article must conform to the approved TC, must have been manufactured under an FAA-approved production system, and must be in a condition for safe operation.

(bb) For engines, propellers, and articles to be installed for aircraft with special airworthiness certificates, each engine, propeller, and article must be listed in the FAA-accepted, military-approved maintenance manual or FAA-accepted civil maintenance manual and IPC specified on the TCDS, and must be in a condition for safe operation.

2 Used Dual-Use Engines, Propellers, and Articles.

(aa) For engines, propellers, and articles to be installed on aircraft with standard airworthiness certificates, an evaluation should be performed by an FAA engineer or an appropriately authorized designated engineering representative (DER). When a DER is used, the DER's recommendations or decisions must be substantiated in writing using FAA Form 8100-9, Statement of Compliance With Airworthiness Standards, and include supporting documents. Each engine, propeller, and article must conform to the approved TC, have been manufactured under an FAA-approved production system, and be in a condition for safe operation. In addition, the following should be evaluated:

(1) Operational differences between military and civil versions (for example, possible DOD modification, alteration, or repair performed) in performance standards as listed in the TCDS (for example, thrust, shaft horsepower, revolutions per minute (RPM), and ratings), and in specifications, as listed in the TCDS and the maintenance manuals (for example, fuel type, oil, weight).

(2) Complete historical operational records. This includes extreme operational conditions such as accidents, fires, or exceeding engine operating limits.

(3) Complete historical maintenance records; for example, modifications, alterations, and repairs, and complete documentation of work performed by an FAA-approved facility that was properly rated for the work performed and that conformed to the FAA-approved data.

(4) ICA.

(5) Emission requirements as stated in the TCDS (engine only).

(6) Comparison of military time and/or cycle count for accumulated operational time and cycle versus civil (for example, "Did the military use a different method than civil operators to account for accumulated operational time and what are the expended equivalent civil cycles of the articles, taking into account their past operational history and mission profile?").

(7) Current manufacturer's technical data to perform tests or inspections.

(8) Written results of inspections performed (for example, maintenance record entry; FAA Form 8130-3, Authorized Release Certificate; or FAA Form 337 for approval for return to service) and a completed FAA Form 8130-9, Statement of Conformity.

(9) The application of the identifying marking requirements in accordance with §§ 45.11 and 45.13, as applicable.

(10) Engine, propeller, or article overhaul records, including overhaul in accordance with civil engine/propeller manuals.

(11) Verification that the engine, propeller, or article was produced by an FAA production approval holder (PAH).

(bb) For engines, propellers, and articles to be installed on aircraft with special airworthiness certificates, an evaluation should be performed by an FAA engineer or an appropriately authorized DER. When a DER is used, the DER's recommendations or decisions must be substantiated in writing using FAA Form 8110-3, Statement of Compliance With Airworthiness Standards, and include supporting documents. Each engine, propeller, and article must be listed in the FAA-accepted, military-approved maintenance manual or FAA-accepted maintenance manual and IPC specified on the TCDS, and be in a condition for safe operation. In addition, the following should be evaluated:

(1) Complete historical operational records. This includes extreme operational conditions such as accidents, fires, or engine exceeding operating limits.

(2) Complete historical maintenance records; for example, modifications, alterations, and repairs, and complete documentation of the work performed.

(3) ICA.

(4) Emission requirements as stated in the TCDS (engine only).

(5) Comparison of military versus civil time and/or cycle count for accumulated operational time and cycle (for example, "Did the military use a different method than civil operators to account for accumulated operational time and what are the expended equivalent civil cycles of the articles, taking into account their past operational history and mission profile?").

(6) Current manufacturer's technical data to perform tests or inspections.

(7) Written results of inspections performed (for example, maintenance record entry, FAA Form 8130-3, or FAA Form 337, for approval, for return to service) and a completed FAA Form 8130-9, signed by an authorized person.

(8) The application of the identifying marking requirements in accordance with §§ 45.11 and 45.13, as applicable.

(9) Engine, propeller, or article overhaul records, including overhaul in accordance with civil engine/propeller manuals.

(10) Verification that the engine, propeller, or article was produced by an FAA PAH.

(c) Approval for Installation. Persons authorized under § 43.7 may determine dual-use engines, propellers, or articles for installation if the engine, propeller, or article has successfully completed the eligibility screening and airworthiness evaluation. The installer must be able to determine that the use of the engine or propeller, and/or the installation of the article, will leave the aircraft in compliance with pertinent regulations and in a condition for safe operation. The authorized individual completing the eligibility screening and/or airworthiness evaluation must make a maintenance record entry that clearly documents the results of the evaluation. Each maintenance record entry in accordance with § 43.9 should include a description of the work performed, the completion date of the work performed, and the name of the person performing the work or authorized to sign.

(6) Military-Unique Engines, Propellers, and Their Military-Unique Articles. Military-unique engines, propellers, and articles are FSCAPs that were specifically and uniquely designed and manufactured for the U.S. military for which there originally was no corresponding FAA-approved PAH engine, propeller, or article for civil application.

(a) Eligibility Screening. New or used military-unique engines, propellers, and articles may be eligible for installation on surplus U.S. military aircraft type certificated under § 21.25(a)(2). The eligibility determination is made based on a review of the following pertinent DOD historical records:

1 Engine, propeller, article ID (article part number and serial number and manufacturer).

2 Contract or purchase order number under which the engine, propeller, or article was manufactured.

3 Evidence of engine, propeller, and article status; for example, serviceable or unserviceable, per DD Form 1574-1 or DA Form 2410.

4 Complete historical records maintained by the military, the manufacturer, and any other prior owner(s), pertaining to inspection, modification, repair, alteration, maintenance, and operation of the engine from the time of acceptance by the military, including, but not limited to, DA Form 2408-5 and DA Form 2408-16. The maintenance records also should include the date that the work was accomplished and work authentication.

5 Current status of applicable ADs and DOD directives (for example, engineering change, technical order, maintenance work order), including the date and method of compliance; and, if the AD involves recurring action, the time and date when the next action is required.

(b) Airworthiness Determination. After determining that the engine, propeller, or article is eligible to be installed on a surplus military aircraft with special airworthiness certificates, each engine, propeller, or article must be evaluated to determine whether it is airworthy.

1 New Military-Unique Engines, Propellers, and Articles. For new military-unique engines, propellers, and their associated articles to be installed on surplus military aircraft with special airworthiness certificates, each engine, propeller, and article must be listed in the FAA-accepted, military-approved maintenance manual or FAA-accepted civil maintenance manual and IPC specified on the TCDS, and must be in a condition for safe operation.

2 Used Military-Unique Engines, Propellers, and Articles. For used military-unique engines, propellers, and articles to be installed on surplus military aircraft with special airworthiness certificates, each engine, propeller, and article must be evaluated by an FAA engineer or an appropriately authorized DER. When a DER is used, the DER's recommendations or decisions must be substantiated in writing using FAA Form 8110-3, and include supporting documents. Each engine, propeller, accessory, and associated article must be listed in the FAA-accepted, military-approved maintenance manual or FAA-accepted civil maintenance manual and the IPC specified on the TCDS, and must be in a condition for safe operation.

(c) Approval for Installation. Persons authorized under § 43.7 may approve military-unique engines, propellers, or articles for installation on surplus military aircraft with special airworthiness certificates if they have successfully completed the eligibility screening and airworthiness evaluation. The installer must be able to determine that the use of the engine or propeller, and/or the installation of the article, will leave the product in compliance with the TCDS and in a condition for safe operation. The authorized individual completing the eligibility screening and/or airworthiness evaluation must make a maintenance record entry that clearly documents the results of the evaluation. Each maintenance record entry in accordance with § 43.9 should include a description of the work performed, the completion date of the work performed, and the name of the person performing the work or authorized to sign.

Figure 2-1. Sample Aeronautical Center Form 8050-64, Assignment of Special Registration Numbers

U.S. Department of Transportation **Federal Aviation Administration**	**ASSIGNMENT OF SPECIAL REGISTRATION NUMBERS**	Special Registration Number N54321
	Aircraft Make and Model: Lockheed L-100, 382G	Present Registration Number: N12345
	Serial Number: 78361C	Issue Date: October 31, 20XX
	ABC Cargo, Inc. P.O. Box 390 Washington National Airport Washington, DC 20001	This is your authority to change the United States registration number on the above described aircraft to the special registration number shown. Carry duplicate of this form in the aircraft together with the old registration certificate as interim authority to operate the aircraft pending receipt of revised certificate of registration. Obtain a revised certificate of airworthiness from your nearest Flight Standards District Office. **The latest FAA Form 8130-6, Application for Airworthiness on file is dated:** May 21, 20XX **The airworthiness classification and catagory:** Standard Transport

INSTRUCTIONS:

SIGN AND RETURN THE ORIGINAL of this form to the Civil Aviation Registry, AFS-750, within 5 days after the special registration number is placed on the aircraft. A revised certificate will then be issued.

The authority to use the special number expires: October 30, 20XX

CERTIFICATION: I certify that the special registration number was placed on the aircraft described above.	**RETURN FORM TO:**
Signature of Owner:	Civil Aviation Registry, AFS-750 P.O. Box 25504 Oklahoma City, Oklahoma 73125-0504
Title of Owner: Chief, Aircraft Services	
Date Placed on Aircraft: November 5, 20XX	

AC FORM 8050-64 (5/2005) Supercedes Previous Edition

Figure 2-2. Sample Response Letter Regarding Identification Plates

U.S. Department
of Transportation
Federal Aviation
Administration

March 3, 2000

Mr. William Blue
220 West Broad St.
Boston, MA 26204

Dear Mr. Blue:

This is in response to your letter dated February 14, 2000, concerning disposition of the identification plate from Cessna Model 305A, Registration No. N5297G, Serial No. 305A-12345.

The aircraft will be scrapped as a result of an accident. It is requested that the aircraft registration, airworthiness certificate, identification plate, and a copy of this letter be forwarded to the address listed below.

Federal Aviation Administration
Aircraft Registration Branch, AFS-750
Mike Monroney Aeronautical Center
P.O. Box 25504
Oklahoma City, OK 73125-0504

Sincerely,

John J. Doe
Manager
Burlington Manufacturing Inspection District Office

Figure 2-3. Sample Limitations for the Operation of an Aircraft With a Door Removed

U.S. Department
of Transportation
Federal Aviation Administration

Make _____
Model _____ Serial No._____
Registration No. _____

AIRCRAFT OPERATING LIMITATIONS

The aircraft described above may be flown with not more than one cabin door removed for the purpose of (see note below), provided the aircraft is operated in accordance with the applicable sections of Title 14 of the Code of Federal Regulations and the following limitations:

Note: Show specific operations; for example, intentional parachute jumping, skydiving, etc.

1. Maximum speed not to exceed any of the following:

   The approved maneuvering speed.
   70 percent maximum level flight speed.
   70 percent maximum structural cruising speed.

2. Aerobatic maneuvers are not permitted.

3. Maximum yaw angle 10 degrees; maximum bank angle 15 degrees.

4. A Federal Aviation Administration (FAA)-approved safety belt must be provided and worn by each occupant during takeoff and landing and at all other times when required by the pilot-in-command.

5. All occupants must wear parachutes when intentional parachute jumping and skydiving operations are conducted.

6. Smoking is not permitted.

7. When operations other than intentional parachute jumping and skydiving are conducted, a suitable guardrail or equivalent safety device must be provided for the doorway.

8. All loose articles must be tied down or stowed.

9. No baggage may be carried.

Figure 2-3. Sample Limitations for the Operation of an Aircraft With a Door Removed (Continued)

10. Parachutists' static lines must be kept free of pilot's controls and control surfaces.

11. Operations are limited to visual flight rules conditions.

12. Cabin door hold-open clips installed on wing brace struts and/or under surface of wing must be removed before conducting intentional parachute jumping or skydiving operations.

13. When intentional parachute jumping, skydiving, or other specified operations are being conducted, the pilot at the controls must hold at least a private pilot certificate and appropriate rating.

14. This aircraft must not be operated in solo flight by the holder of a student pilot certificate.

15. Operation of this aircraft with a door removed for any purpose other than that for which it is certificated is prohibited.

16. The following placard must be placed on the instrument panel in full view of the pilot:

"For flight with door removed, see aircraft operating limitations dated _____."

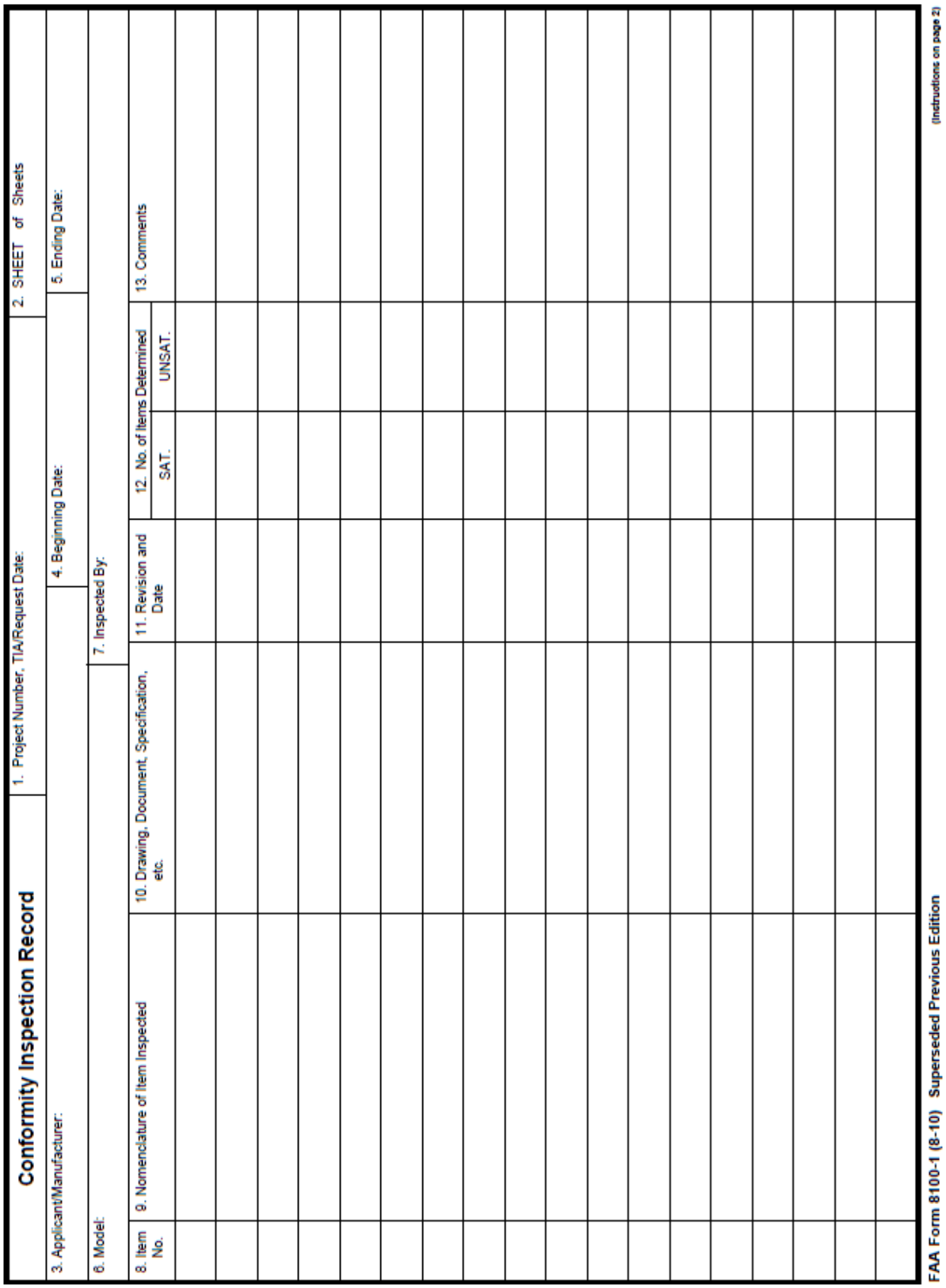
17. A copy of these limitations must be carried in the aircraft when flight operations are conducted with the door removed.

18. These operating limitations are a part of the airworthiness certificate.

FAA Inspector _____ Date _____

Office No. _____

Figure 2-4. Sample FAA Form 8100-1, Conformity Inspection Record (Face Side Only)



Conformity Inspection Record

1. Project Number, TIA/Request Date:
2. SHEET of Sheets
3. Applicant/Manufacturer:
4. Beginning Date:
5. Ending Date:
6. Model:
7. Inspected By:

8. Item No.	9. Nomenclature of Item Inspected	10. Drawing, Document, Specification, etc.	11. Revision and Date	12. No. of Items Determined		13. Comments
				SAT.	UNSAT.	

FAA Form 8100-1 (8-10) Superseded Previous Edition

(Instructions on page 2)

Chapter 3. Standard Airworthiness Certification

Section 1. General Information

300. General. In no case may any aircraft be operated unless there is an appropriate airworthiness certificate issued to and valid for that aircraft. This chapter provides policy and guidance material associated with airworthiness certification and issuance of FAA Form 8100-2.

a. Section 21.183(a) prescribes the basic requirements for issuance of standard airworthiness certificates for aircraft manufactured under a PC.

b. Section 21.183(b) prescribes the basic requirements for issuance of standard airworthiness certificates for aircraft manufactured under a TC.

c. Section 21.183(c) prescribes the basic requirements for issuance of the standard airworthiness certificates for an import aircraft type certificated in accordance with § 21.21 or § 21.29 and produced under the authority of another State of Manufacture. The CAA certifications must be made by issuance of an Export C of A that contains either the certification statement noted on the corresponding FAA TCDS or a certification statement that the aircraft is airworthy.

d. Section 21.183(d) prescribes the basic requirements for issuance of standard airworthiness certificates for used aircraft (aircraft with time-in-service for other than production flight testing), and for surplus aircraft of the U.S. Armed Forces.

e. Section 21.183(h) prescribes the basic requirement for issuance of a standard airworthiness certificate for new aircraft manufactured to a TC, when the applicant does not hold the TC or a licensing agreement from the TC holder. A person seeking to manufacture a new aircraft under this provision must demonstrate to the FAA that the manufacturing began before August 5, 2004. Typically, these aircraft are built from spare and surplus articles. Paragraph 315 of this order provides detailed guidance for these aircraft.

f. The FAA has full responsibility for finding that each aircraft, at the time an airworthiness certificate is issued, is airworthy. Therefore, sufficient FAA inspections of each aircraft must be conducted by the certificating ASI or authorized designee.

301. Standard Airworthiness Certificate.

a. FAA Form 8100-2 is used for all original and recurrent certification of aircraft in a standard classification only and for replacement of FAA Form 1362A still in effect. Refer to chapter 8 of this order for instructions on completing FAA Form 8100-2 (included as figure 3-1 of this order).

b. A standard airworthiness certificate remains valid as long as maintenance, preventive maintenance, and alterations are performed in accordance with parts 21, 43, and 91, and the aircraft is registered in the United States.

302. Application for Airworthiness Certificate. FAA Form 8130-6 is required whenever an airworthiness certificate is issued or amended. The application for a U.S. airworthiness certificate must be made by the registered owner or an agent who has a notarized letter of authorization (LOA) from the registered owner. The applicant must complete and sign the appropriate sections of FAA Form 8130-6 before submitting it to the FAA. Instructions for reviewing and completing FAA Form 8130-6 are found in chapter 8 of this order. Applicant instructions for completing FAA Form 8130-6 are contained in AC 21-12, *Application for U.S. Airworthiness Certificate, FAA Form 8130-6*.

303. Statement of Conformity.

a. FAA Form 8130-9 should be submitted to the FAA as required by §§ 21.53 and 21.130 under the following circumstances:

(1) By the applicant at the time the aircraft or articles thereof are submitted for FAA tests during the type certification program;

(2) By the applicant for each aircraft, aircraft engine, or propeller submitted for type certification; or

(3) By a TC holder or licensee manufacturing products under a TC—

(a) With the initial transfer of ownership of each product,

(b) Upon application for the original issue of an airworthiness certificate, or

(c) Upon application for an export airworthiness approval.

Note: For the purpose of this order, type certification programs include any tasks associated with the issuance of a TC or STC or the approval of FAA Form 337.

b. Review FAA Form 8130-9 for completion and ensure all of the entries are typewritten or printed legibly in permanent blue or black ink. If the certifier is also an FAA designee, the designee title will not be used. If the inspection and certification is delegated to a supplier by the applicant, a copy of the letter of delegation must be submitted to the FAA at the time of conformity. Refer to FAA Order 8110.4, *Type Certification*, for additional information on FAA Form 8130-9.

304. Determining Conformity.

a. When an aircraft is submitted for airworthiness certification, a determination must be made that the aircraft is in conformance with its type design. This does not imply that every article must be subjected to a conformity inspection. Conformity inspections should only be conducted when, in the FAA's judgment, conformity to the type design for a particular article cannot be substantiated by any other means.

b. Conformity to the type design can only be established when a determination has been made that the article(s) conform to FAA-approved design data.

c. Parts catalogs or maintenance manuals may not be relied on as a sole source of information regarding the installation of parts and the validity of repairs. However, they should be used when applicable as an aid in establishing the configuration of a particular aircraft or in determining that the aircraft has been properly maintained.

d. MIDOs, MISOs, and CMOs/Certificate Management Units (CMU) having certificate management responsibility for a particular manufacturer interface with the applicable Aircraft Certification Office (ACO) to provide technical data and other pertinent information necessary to support the certification process. It is the applicant's responsibility to provide the type design data for those products and articles for which a conformity determination must be made.

305. Basic Eligibility Requirements. Before a standard airworthiness certificate can be issued, the applicant must show the following:

a. The aircraft must be airworthy.

b. Any major alterations were accomplished in accordance with an approved STC or other FAA-approved data. If altered while in another category, the aircraft continues to meet, or has been returned to, its approved type design configuration.

c. The aircraft complies with all applicable ADs.

d. Any major repairs must conform to FAA-approved data or performed in accordance with bilateral agreement procedures

306. Certification Procedures. The procedures described herein are consistent with any other specific procedures prescribed in paragraphs dealing with individual airworthiness categories.

a. Obtain from the applicant a properly executed FAA Form 8130-6, and any other documents required for certification. The applicant must have the form completed and the appropriate sections signed before submitting it to the FAA. The application for a U.S. airworthiness certificate must be made by the registered owner or an agent who has a notarized LOA from the registered owner.

b. Contact AFS-750 to determine if an application for airworthiness certification has previously been denied. If it was denied, the reasons stated in the denial letter must be rectified before issuing an airworthiness certificate.

c. Arrange with the applicant to make available for inspection and review the aircraft, aircraft records, and any other data necessary to establish conformity to its type design.

d. Determine that the aircraft is properly registered in accordance with part 47.

e. As applicable, ensure compliance with the noise standards of § 21.93(b); § 21.183(e); part 36, Noise Standards: Aircraft Type and Airworthiness Certification; or part 91. Also ensure compliance with the fuel venting and exhaust emission requirements of part 34, Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes, and the applicable passenger emergency exit requirements of § 21.183(f).

f. Review records and documentation to the extent necessary to establish the following:

(1) All of the required records and documentation are provided for the aircraft, that is, an up-to-date approved flight manual, a current weight and balance report, an equipment list, the maintenance records, the FAA-accepted ICA, the FAA-accepted maintenance manual(s), and any other manuals required by §§ 21.31, 21.50, 33.4, and 35.4, and by §§ 23.1529, 25.1529, 27.1529, and 29.1529. These documents must be in the English language.

(2) The aircraft is eligible by make, model, and serial number, using the TCDS, aircraft specifications, and/or applicable aircraft listing. For example, an aircraft listing may consist of aircraft model and serial numbers associated with newly manufactured aircraft that are not yet listed on the TCDS.

(3) The inspection records and technical data reflect that the aircraft conforms to the type design, all required inspections and tests have been satisfactorily completed, and the records are complete and reflect no unapproved alterations.

(4) The aircraft has been flight tested in accordance with paragraph 322 of this order, if required. If it has not been flight tested, issue the appropriate special airworthiness certificate prescribed in chapter 4 of this order. The flight test must be recorded in the aircraft records in accordance with § 91.417(a)(2)(i) as time-in-service as defined in part 1, Definitions and Abbreviations. Aircraft assembled by a person other than the manufacturer (for example, a dealer or distributor) must have been assembled and, when applicable, flight tested in accordance with the manufacturer's FAA-approved procedures.

(5) Large airplanes, turbojet, or turbopropeller multiengine airplanes comply with the inspection program requirements of part 91, subpart E, Maintenance, Preventive Maintenance, and Alterations, or other regulations referenced therein. A supplemental structural inspection program also is required for certain large transport category airplanes. Refer to AC 91-56, *Continuing Structural Integrity Program for Airplanes*.

(6) The TC holder or STC holder has furnished one set of FAA-accepted ICA or one complete set of FAA-accepted maintenance manuals to the owner of the aircraft when the first standard airworthiness certificate is issued, or has procedures in place to ensure FAA-accepted ICA or maintenance manuals are provided upon delivery of the aircraft, as required by §§ 21.17(a) and (b), 21.31, and 21.50. The ICA or maintenance manuals also are required for all products with a TC or STC. If no FAA-accepted ICA or maintenance manuals are available, the ASI having certificate management responsibility over the manufacturer will contact the ACO and Aircraft Evaluation Group (AEG) to determine the status of the ICA or maintenance manuals. The ASI is responsible for ensuring the manufacturer and company

designees are made aware of the status of the ICA or maintenance manuals. No deliveries will be allowed before the ICA or maintenance manuals are approved.

> **Note:** For additional information relative to imported products, refer to AC 21-23, *Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported to the United States*.

g. Inspect the aircraft for the following:

(1) The nationality and registration marks and ID plate are displayed and marked in accordance with part 45. The information therein agrees with the application for airworthiness certification.

(2) All equipment, both required and optional, is properly installed and listed in the aircraft equipment list.

(3) Instruments and placards are correctly located, installed, and properly marked in the English language.

(4) All applicable ADs have been accomplished and appropriately recorded.

(5) The aircraft conforms to its approved U.S. TC and is in a condition for safe operation.

(6) All aircraft systems have been satisfactorily checked for proper operation.

(7) Operation of the engine(s) and propeller(s) has been checked in accordance with the aircraft manufacturer's instructions.

h. If it is determined that the aircraft meets the requirements for the certification requested, the ASI or authorized designee will—

(1) Make an aircraft logbook entry in accordance with paragraph 801b(8)(d) of this order.

(2) Issue FAA Form 8100-2 in accordance with paragraph 802 of this order.

(3) Complete sections V and VIII of FAA Form 8130-6, as appropriate, in accordance with the instructions contained in paragraph 801b(5) and 801b(8) of this order.

(4) Examine, review, and route the certification file in accordance with paragraph 807 of this order.

i. If the aircraft does not meet the requirements for the certification requested and the airworthiness certificate is denied, the ASI must write to the applicant stating the reason(s) for denying the certificate. The ASI also will attach a copy of the denial letter to the application and forward the application to AFS-750 to be made a part of the aircraft record.

307.-308. Reserved.

Section 2. New Aircraft

309. General. In addition to the instructions contained in section 1 of this chapter, this section provides further guidance material associated with the airworthiness certification of new aircraft being produced under a TC or PC.

310. Certification Procedures. The ASI or authorized designee should follow the appropriate procedures in section 1 of this chapter in conjunction with any applicable steps listed in this order.

311. Aircraft Manufactured Under a TC (Without an FAA Production Approval).

a. The FAA has full responsibility for ensuring each aircraft for which an airworthiness certificate is issued is airworthy. Sufficient inspections of each aircraft must be conducted by ASIs or authorized designees.

b. Under the provisions of §§ 21.183(b) and 21.123, FAA Form 8100-2 may be issued for aircraft produced by a manufacturer who does not have an FAA production approval.

(1) All inspections conducted or witnessed by the FAA must be documented on FAA Form 8100-1, and all nonconformities must be corrected and documented before issuing an airworthiness certificate.

(2) The appropriate MIDO must establish and retain an FAA inspection record file for each aircraft manufactured without an FAA production approval to substantiate the basis for issuance of the airworthiness certificate. Nonconformities involving material review actions must be resolved through the certificating ACO before certification.

(3) FAA Form 8130-9 requirements found in paragraph 311d of this order apply.

c. FAA inspections should be adjusted for any significant changes in manufacturing systems, procedures, and personnel, or when major changes have been introduced into the aircraft.

d. FAA Form 8130-9 must be submitted by the applicant with each application for an original airworthiness certificate in accordance with § 21.183(b).

312. Aircraft Manufactured Under a PC.

a. FAA inspections may be reduced to a minimum when aircraft are manufactured under the terms of a PC. The manufacturer must have demonstrated to the satisfaction of the FAA that it has the facilities, equipment, personnel, systems, and procedures that will ensure continuous conformity with the approved type design.

b. Aircraft manufactured under the terms of a PC are eligible for the issuance of an airworthiness certificate without further showing in accordance with § 21.183(a). The submission of FAA Form 8130-9 is not required, nor is it mandatory for the FAA to inspect each aircraft to determine conformity with the approved type design. The inspection frequency may

be adjusted by the geographic MIDO, MISO, or CMO/CMU having certificate management responsibility over the certificate holder.

313. Airworthiness Certification of Very Light Aircraft (VLA).

a. A VLA is considered a special class of aircraft under § 21.17(b). A VLA is defined as an airplane with a single engine (spark or compression-ignition), not more than two seats, a maximum certified takeoff weight of not more than 750 kilograms (approximately 1654 pounds), and a stall speed of not more than 45 knots calibrated airspeed in the landing configuration.

b. All VLA are eligible to receive FAA Form 8100-2 under § 21.183(a) or (b) if the airplane has a TC and is manufactured under an FAA TC or PC. Because the VLA is type certificated as a special class of aircraft under § 21.17(b), the category in block 4 on FAA Form 8100-2 must be identified as VLA-Special Class.

c. The import airworthiness certification requirements of § 21.183(c) are applicable to VLA designed to meet the criteria of the European Aviation Safety Agency (EASA) CS-VLA (formerly Joint Aviation Requirements (JAR) for VLA). The FAA type certification basis for import VLA with EASA CS-22 (formerly JAR 22) engines and propellers installed will be shown on the TCDS. The category in block 4 on FAA Form 8100-2 will be identified as VLA-Special Class for Imported VLA.

314. Aircraft Manufactured in a Bilateral Country.

a. New aircraft manufactured in a bilateral country will be inspected and certificated in a manner similar to that noted in paragraph 311 of this order, except that under a bilateral agreement, the CAA of the State of Manufacture must certify that the aircraft has been examined, tested, and found to meet its U.S. type design (refer to paragraph 511 of this order for a definition of a "new" product). An ASI or authorized designee must inspect the aircraft to determine airworthiness eligibility using the current TCDS before the § 21.183(c) airworthiness certificate is issued for the completed aircraft.

b. The extent of each inspection conducted depends on many factors requiring good judgment. All articles and completed aircraft should be given a thorough inspection upon delivery of the aircraft to the U.S. owner/operator.

c. The certifying statement from the CAA of the State of Manufacture must be submitted by the applicant with each application for the first U.S. airworthiness certificate to be issued for a particular aircraft. Refer to §§ 21.183(c) and 21.185(c).

315. New Aircraft Manufactured Under the Provisions of § 21.6(b).

a. General. The following provides guidance and instructions on issuing a standard airworthiness certificate, under the provision of § 21.183(h), for new aircraft manufactured to a TC issued under § 21.21 or § 21.27. This requirement only applies to an applicant that does not hold the TC or a licensing agreement from the TC holder. Additionally, under the provision of § 21.6(b), an applicant may build and certificate only one new aircraft (one aircraft, one person,

one time), and the applicant must have started manufacturing that aircraft before August 5, 2004. Typically, these aircraft are built from spare and surplus articles.

> **Note:** This guidance and instructions do not apply to an applicant that holds the TC or a licensing agreement from the TC holder to build an aircraft. These aircraft may be certificated only under the provisions of § 21.183(a) or (b).

(1) A person seeking to manufacture a new aircraft under the provisions of §§ 21.6(b) and 21.183(h) must demonstrate to the FAA that the manufacturing began before August 5, 2004. Documents that could prove manufacturing began before August 5, 2004, include items such as receipts for the purchase of articles, dated photographs, and dated information received from the FAA related to the manufacturing or certification process for the specific aircraft. This information must be provided to the FAA no later than the time of application for an original airworthiness certificate.

(2) If an applicant meets the requirement of paragraphs 315a and 315a(1) of this order, immediately contact your division manager, directorate manager, or managing office for approval to proceed with the project. The directorates will maintain a record of all projects approved under this paragraph. The following will be discussed with each applicant:

(a) Building aircraft from spare and/or surplus articles does not include the repair of destroyed aircraft. However, articles obtained from a destroyed aircraft may be used provided the articles are inspected and tested as required to ensure they are acceptable for installation and conform to the type design used to substantiate conformity. For such articles, the applicant must be in compliance with all applicable requirements of part 43.

(b) For any STC the applicant intends to incorporate into the aircraft during assembly, the applicant must own or have written permission from the STC holder/owner permitting the use of the STC.

(c) Section 21.9 does not provide authority to produce articles needed for the assembly of a new aircraft built from spare and/or surplus articles.

b. Applicant Responsibilities. An applicant must show that the products and articles meet the airworthiness and environmental standards that are the basis for their individual approvals. In addition, the collectively assembled aircraft will satisfy the certification basis identified on the referenced TC and meet the applicable requirements of § 21.183(h) and any special conditions prescribed by the FAA. The applicant begins by submitting a design package to the cognizant (local) FAA ACO.

(1) The applicant will deliver to the local ACO a compatibility document/matrix to show what STCs are proposed for installation on each aircraft. The matrix should show that the applicant has reviewed the STCs and determined that there are no compatibility issues. The local ACO review is an evaluation as to how the applicant made the determination of compatibility. The compatibility document will be submitted to and accepted by the local ACO and certificate management ACO (CMACO) (the ACO that manages the current TC) before certifying the aircraft.

(2) The applicant will submit to its local ACO a complete design package for the aircraft. The type design data must meet the requirements in § 21.183(h) (as defined in FAA Order 8110.4) and be complete enough to allow the FAA to verify any parts manufacturer approval (PMA) parts or technical standard order (TSO) articles meet the TC requirements. Only FAA-approved design data will be submitted. Field repair manuals or illustrated article breakdowns will not be submitted; they are FAA-accepted data, not FAA-approved data. Military manuals or drawings will not be submitted; they are not FAA-accepted or -approved data. In addition, the requirements of §§ 21.5, 21.50, and 21.99 need to be complied with as applicable. The following are items that should be included in the design package. However, the ACO/CMACO may request additional documentation as needed.

(a) A master drawing list, which will consist of a complete description of each aircraft type design configuration, including all STCs and a list of the PMA parts, TSO articles, and owner/operator-produced articles, which make up the configuration of each aircraft. The master drawing list will be the basis for determining conformity to a TC for each aircraft.

> **Note:** This list should include installation instructions, process specifications, the drawings or document number, the revision level, engineering change orders in effect, the date prepared, and the approval dates of all material.

(b) The aircraft assembly plan, so the ASI is able to determine when different assembly processes will take place.

(c) The proposed weight and balance process.

(d) The proposed flight test procedure. The applicant must flight test the aircraft in accordance with an FAA-approved production flight test procedure and flight checkoff format as prescribed by § 21.127. An FAA flight test engineer will approve the flight test procedure.

(3) The local ACO will verify the design package is complete and then forward it to the CMACO that manages the current/original TC project. The CMACO and local ACO will perform a review and validation of the design data to ensure the data are approved and current. A DER will not perform this approval/review process. FAA Order 8110.4 contains more detailed requirements of a design package.

(4) The applicant will maintain and make available to the FAA, when requested, all supporting documents such as manufacturers' invoices, suppliers' affidavits, packing lists, articles lists, material certification sheets, and other acceptable records to provide traceability of raw stock and articles to their origin and to provide a basis of approval.

(5) The applicant will submit to the FAA a complete conformity folder for the aircraft and FAA Form 8130-9 certifying that the completed aircraft conforms to the FAA-approved data for this project at the time an application for an airworthiness certificate is submitted. In addition to the design package and STC compatibility documents, the conformity folder will include all STCs, inspection checklists, flight test records, and documentation for the specific aircraft being certificated. The build/inspection checklists will include the initials/stamp of the individuals

who performed the work and/or inspections and, upon completion, the typed and/or printed name and signature of the applicant.

c. FAA Responsibilities. The ASI needs to explain to the applicant that because the applicant is not required to have a quality system the same as a PAH, it is the applicant's responsibility to demonstrate to the FAA that the aircraft conforms to the TC and is in a condition for safe operation. Also, when presenting anything to the FAA, the applicant must ensure compliance with all airworthiness requirements in place at the time of presentation. In addition to the requirements of section 1 of this chapter, the FAA will use the following guidance to establish that the aircraft conforms to its type design as approved by the ACO/CMACO:

(1) FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built from Spare and Surplus Articles (figure 3-5 of this order is a reproducible sample), will be used during the conformity process. The completed checklist will be included in the permanent airworthiness certification record package forwarded to AFS-750.

(2) The ASI must verify the aircraft is assembled from approved articles that conform to the FAA-approved type design for that particular model. The ASI must review the appropriate documents as presented by the applicant, substantiating FAA production approval status of these articles.

(3) The ASI must verify any major changes to the approved design package have been approved by the appropriate ACO/CMACO.

(4) Used articles with established service life-limited parts must be proven airworthy and accompanied by appropriate historical records to substantiate time-in-service. Such evidence, together with other maintenance records, should be returned to the applicant and made a part of the aircraft historical records. Life-limited articles without historical records substantiating their eligibility cannot be accepted for certification on aircraft.

(5) The serial number of the aircraft does not have to appear on the aircraft specification, TCDS, or aircraft listing to be eligible for a standard airworthiness certificate. The aircraft serial number is used primarily for the purpose of individual identification of an aircraft. Under 49 U.S.C. 44704, it need only be shown that the aircraft conforms to its FAA-approved TC and is in a condition for safe operation for the aircraft to be eligible for a standard airworthiness certificate.

(6) The ASI must ensure the applicant provides parts catalogs, assembly and/or maintenance manuals (as may be produced by the original equipment manufacturer), or the equivalent, for use as a guide by the FAA during all phases of the aircraft assembly inspections.

(7) After the product CMACO reviews the design package and finds it to be acceptable, the ASI uses the package and any other relevant information to develop a conformity inspection plan. The ASI reviews the plan with the applicant and the ACO and/or MIDO to determine the following:

(a) What processes, if any, are to be considered critical and require ASI mandatory inspection acceptance points.

(b) Where mandatory FAA conformity inspection points will be placed. At this point, the assembly plan can be used to forecast when these inspections will be accomplished. These inspections will not be bypassed by the applicant and may require a work stoppage if anything requiring inspection could be covered by further assembly.

(c) That the applicant's incoming articles and raw stock meet all TC requirements and are free of shipping and handling damage. Supporting documents such as manufacturer invoices, supplier affidavits, packing lists, parts lists, material certification sheets, and other acceptable records will be maintained and made available to the FAA.

(d) That the applicant has a process in place to ensure any special tooling meets all needed calibration requirements (for example, torque wrenches, assembly jigs, any equipment used to calibrate flight instrumentation). This process must be traceable to the National Institute of Standards and Technology.

(e) That all articles are in compliance with approved design data. The following guidance will establish compliance:

1 FAA-approved articles obtained from a PAH and eligible for installation on this make and model will be free of shipping and handling damage and meet applicable type design data.

2 New articles fabricated will be properly manufactured, meet all applicable type design data requirements, and meet the airworthiness requirements of the FAA regulations applicable to the product on which the article is to be installed.

3 Used articles meet all applicable requirements of 14 CFR part 43. These parts will possess an airworthiness approval tag (FAA Form 8130-3) documenting that they are airworthy and approved for return to service.

4 The applicant will make available all purchase orders and documentation to provide traceability of articles to their origin and to provide the basis of approval for the article. These documents will be available at the time of certification and used to verify the accuracy of the article information contained in the master drawing list. The ASI will review the article traceability (origin) information at the time of certification.

(f) That the aircraft identification and registration marking is correct and has been properly processed through AFS-750.

(g) That there is a process to ensure the reporting of failures, malfunctions, and defects for continued airworthiness will be accomplished.

(8) The ASI will perform all conformity inspections.

(9) The ASI will witness the applicant weigh the aircraft to determine empty weight and center of gravity (CG). A weight and balance report will be submitted at the time of airworthiness certification. FAA-H-8083-1, *Aircraft Weight and Balance Handbook,* is a good source of guidance to use during this operation.

(10) The ASI will review the completed FAA-approved flight checkoff form to verify flight test completion. The aircraft must be flight tested by the applicant in accordance with an FAA-approved production flight test procedure and flight checkoff format as prescribed by § 21.127. A DER will not perform this approval/review process.

(11) The ASI will review FAA Form 8130-9, certifying the completed aircraft conforms to the applicable FAA-approved data for this project. Any major deviations to the TC must be described on the statement of conformity and approved by FAA engineering. When submitting FAA Form 8130-9 for an aircraft built from spare and/or surplus parts, cross out the phrase in section IV, item B, "produced under type certificate" (refer to figure 3-6 of this order) and enter below that item the TC, specification, or listing numbers as applicable.

(12) A new ID plate will be reviewed by the FAA before installation on the aircraft to verify it meets the requirements of §§ 45.11 and 45.13. The builder's name would be that of the person who assembled the aircraft and not the name of the TC owner/manufacturer who builds the same model of aircraft (refer to figure 3-2 of this order). The model designation is that of the aircraft type design to which conformity is determined. The serial number selected by the builder should be clearly distinguishable from the TC holder's serial numbers; for example, the serial number could be the builder's name or initials together with a number.

(13) The FAA should list supporting documents such as manufacturer invoices, supplier affidavits, packing lists, parts lists, material certification sheets, and other acceptable records submitted by the applicant on FAA Form 8100-1, which becomes part of the checklist and inspection record. The basis for determining conformity with the FAA-approved data for this project will be established and become a matter of record for future reference.

(14) The MIDO/MISO/CMO/CMU or FSDO issuing the standard airworthiness certificate will ensure copies of FAA Forms 8100-2 and 8130-6 are forwarded to the CMACO.

316.-318. Reserved.

Section 3. Used Aircraft and Surplus Aircraft of the U.S. Armed Forces

319. General. Section 21.183(d) is applicable to used aircraft. Its provisions are applied to airworthiness certification of used aircraft, which are aircraft with time-in-service for other than production flight testing, including U.S.-manufactured civil aircraft that were exported and later returned to the United States, and surplus U.S. military aircraft. In addition to the provisions contained in section 1 of this chapter, this section provides further guidance material and procedures associated with airworthiness certification of these aircraft.

320. Certification Procedures.

a. General. The FAA must follow the appropriate procedures listed in paragraph 306 of this order, along with the guidance and procedures in paragraphs 322 through 328 of this order when examining a used aircraft.

b. Repair Data Approved by Another CAA. Increasingly the FAA is negotiating bilateral agreements that provide greater recognition to data approved by other CAAs for repairs to a used aircraft or its articles. Always consult the current version of a respective bilateral agreement to determine the acceptance of foreign repair data. If you have questions regarding the applicable provisions of any of these bilateral agreements, contact the AIR International Policy Office (AIR-40).

321. Conformity Determination.

a. The applicant must present acceptable evidence to substantiate that the aircraft is airworthy and has been inspected in accordance with one of the applicable inspections as set forth in § 91.409. One of the following persons must find that the aircraft is airworthy:

(1) The manufacturer;

(2) An appropriately rated repair station;

(3) The holder of a mechanic certificate issued under part 65, Certification: Airmen Other than Crewmembers; or

(4) The holder of a certificate issued under part 119, Certification: Air Carriers and Commercial Operators, and having a maintenance and inspection organization appropriately rated for the type of aircraft involved.

(5) An approved maintenance organization appropriately certificated by the CAA of a country with which the United States has a bilateral maintenance agreement and that meets the requirements as defined in § 21.183(d)(2). In this circumstance, the applicant must list the country, foreign repair station name, and number (if applicable) in section IV, block 6 of FAA Form 8130 6. Using permanent blue or black ink, the applicant must strike/draw a line through the title of section IV, block 5 of FAA Form 8130 6, initial the line through, and provide a statement that an equivalent inspection was performed that meets the requirements of appendix A to this order.

b. Under the provisions of § 21.183, it is the applicant's responsibility to present, with the application, evidence that substantiates conformity with the FAA-approved type design. The applicant must provide any inspection and maintenance records, service history, and any other records substantiating eligibility of the articles being used. Sufficient conformity inspections must be conducted on the aircraft and the applicant's evidence for the ASI to find the aircraft to be in conformity. If conformity cannot be determined, the inspection should be stopped until such time as the applicant presents new evidence showing such determination has been made.

c. The process by which an applicant can meet these requirements depends on the aircraft involved and its history. This order is intended to address the most common situations encountered in certificating aircraft under § 21.183(d). Unique situations should be discussed in advance with the AIR Design, Manufacturing, and Airworthiness Division (AIR-100).

322. Flight Testing. The FAA may require flight tests to determine that the aircraft is in a condition for safe operation. The applicant must consult with the FAA to establish a flight test procedure and flight checkoff form. The FAA must confirm that the aircraft has been flight tested by the applicant's pilot in accordance with that procedure. Flight tests may not be conducted by the FAA until an entry has been placed in the aircraft records to show that these tests have been satisfactorily completed by the applicant. The appropriate airworthiness certificate for this purpose is a special airworthiness certificate, for showing compliance with 14 CFR.

323. Issuance of Standard Airworthiness Certificates Under § 21.183(d)—Used Aircraft and Surplus Aircraft of the U.S. Armed Forces. Before a standard airworthiness certificate is issued, the applicant must show that the aircraft meets the FAA-approved type design for that aircraft. This includes aircraft type certificated under § 21.29.

a. Upon initial contact by persons desiring a standard airworthiness certificate for a U.S. type-certificated aircraft located in a country other than the United States, the FAA must—

(1) Determine whether the certification program can be accomplished in the desired location without placing an undue burden on FAA resources. If the determination results in a finding that the desired location places an undue burden on FAA resources and certification cannot be performed by an ASI, then advise the applicant that the use of an appropriate FAA designee is permissible; or

(2) Advise the applicant that a special flight permit for U.S.-registered aircraft (§ 21.197) or special flight authorization (SFA) for non-U.S.-registered aircraft may be issued under § 91.715 if it is necessary to relocate the aircraft for the airworthiness inspection. To ferry an aircraft to a location near the office or a mutually acceptable location, refer to chapter 7 of this order.

> **Note:** Special flight permits and SFAs are not recognized by the International Civil Aviation Organization (ICAO).

(3) Discuss with the applicant any anticipated issues, the applicable certification procedures in section 1 of this chapter, the specific requirements listed herein, and any proposed certification time schedules.

b. Bilateral Agreements: Bilateral Airworthiness Agreement (BAA), Bilateral Aviation Safety Agreement (BASA), or Other International Agreements for Airworthiness.

(1) A bilateral agreement provides for close cooperation between the FAA and another CAA in the resolution of safety issues that might arise from in-service operation of any product exported or imported and approved or accepted under the terms of the agreement. When a safety concern arises, the FAA will work with and through the CAA of the other country to the maximum extent practicable, for example, through the exchange of information and technical opinions, to determine the appropriate corrective action required of operators or owners of affected U.S.-registered aircraft. The CAA is expected to keep the FAA informed of corrective actions that the CAA believes are required for safety on U.S.-registered aircraft.

(2) Service documents such as service bulletins and structural repair manuals approved by the bilateral CAA where an affected product is manufactured are considered to be FAA-approved data unless otherwise noted, provided the United States has a bilateral agreement with that country. However, service bulletins or other similar instructions classified as "mandatory" by the CAA are not mandatory in the U.S. regulatory system unless required by an AD. Therefore, owners or operators of affected U.S.-registered aircraft are not required under U.S. law to comply with service documents or directives issued by the CAAs of other countries unless an FAA AD is issued under part 39, Airworthiness Directives. However, for U.S. type-certificated products not currently on the U.S. registry, alternate procedures have been established involving the processing of foreign Mandatory Continuing Airworthiness Information (MCAI) that may affect the way the airworthiness certification requirements are met. The MCAI process is described in detail in paragraph 606 of this order.

(3) Appendix A to this order provides additional guidance on used aircraft under a bilateral agreement related to the acceptance of a 100-hour inspection, Export C of A, repair data, maintenance activities, and third country-manufactured aircraft.

c. Third-Party Agreements.

(1) The United States has bilateral agreements for reciprocal acceptance of Export C of As with a number of countries that contain a "third-country provision," through which the CAA of one country may certify products that are manufactured in another bilateral country (refer to AC 21-23). This provision primarily was intended to provide the CAA of the exporting country, other than the State of Manufacture, with authority to certify to the United States that a product to be exported is in conformance and that the product is in a condition for safe operation. For example, an aircraft manufactured in Brazil is exported to New Zealand and operated under New Zealand registry. The aircraft is then sold to a buyer in the United States under this provision. If the New Zealand CAA issues a certification to the effect that the aircraft meets its U.S. type design and is in a condition for safe operation, the FAA will honor the certification (this is an example only).

(2) Because the United States has bilateral agreements with third-party countries that attest to their competence in making conformity and airworthiness determinations, the FAA also will accept certifications of those aircraft that have been manufactured in the United States when the CAAs of these countries are willing to issue such certificates. Accordingly, a prospective buyer of a U.S.-manufactured aircraft located in a country other than the United States may request from the CAA of the bilateral third-party country a certification to the effect that the particular U.S.-manufactured aircraft has remained in or has been returned to its type design configuration and is in a condition for safe operation. When applicable, the certification should also contain information concerning any areas where the aircraft does not conform to its type design. This certification will be honored by the FAA as fulfilling the applicant's responsibility, but will not eliminate the inspection requirements mandated by § 21.183(d).

(3) Applicants must be cautioned that it may be impractical to obtain a U.S. airworthiness certificate for an aircraft operated under the registry of another country subsequent to the issuance of an Export C of A by the CAA of the State of Manufacture. Applicants should be able to (1) identify repairs and modifications, and any maintenance accomplished, and (2) document the equipment installed on the aircraft from the time the Export C of A was issued to the date of application for a U.S. airworthiness certificate. The applicant must show that the aircraft has remained in, or has been returned to its FAA-approved type design and is in a condition for safe operation. This may involve extensive inspections accomplished by designees, the CAA of the State of Manufacture, the aircraft manufacturer, and repair stations, before a U.S. airworthiness certificate may be issued.

(4) In cases where an aircraft manufactured outside the United States originally was exported to another country and the CAA of the State of Manufacture has issued an Export C of A attesting conformance to a design other than that approved by the FAA, the Export C of A may be useful to the applicant for establishing a configuration baseline for showing conformity to the FAA-approved design after modification. In these cases, or when the Export C of A may not be available, the applicant should obtain a statement from the CAA of the State of Manufacture that (1) certifies that when originally exported from that country the aircraft met its FAA-approved design, or (2) identifies any differences between the configuration identified in the original export certification and the FAA-approved design. The applicant must obtain the necessary technical data needed to convert the aircraft to its FAA-approved design configuration. This method may involve extensive inspections to be accomplished by designees, the CAA of the State of Manufacture, the aircraft manufacturer, or persons authorized under part 43, before the applicant is able to show conformity to the FAA-approved design. Attempts to obtain a U.S. airworthiness certificate by this method may prove to be impracticable for the applicant; in some instances, the applicant ultimately may be unable to obtain the desired U.S. airworthiness certificate.

(5) The FAA normally will not issue a U.S. airworthiness certificate for an aircraft manufactured outside the United States when no export certification is available. To be acceptable, aircraft manufactured outside the United States must be controlled under bilateral agreement procedures with assurance of conformity and condition provided by the CAA in the State of Manufacture. Without assurance in the form of an Export C of A or a certifying statement from the CAA of the State of Manufacture, there is no practical way for an applicant to

show, or for the FAA to find, that the aircraft conforms to the FAA-approved type design and is in a condition for safe operation.

(6) Inspections by the FAA should be conducted to determine that no changes or modifications have been made, and that the condition of the aircraft has not deteriorated since its export certification by the CAA. Flight testing in accordance with chapter 4 and/or paragraph 322 of this order may be required before a U.S. airworthiness certificate is issued if the aircraft has been disassembled and reassembled since its export certification by the CAA.

(7) Other CAAs may charge a fee for their services. The applicant must be prepared to pay any such fee if the services of a CAA are requested. Any certification, inspection, or information documents provided to the applicant by the CAA must be in the English language.

d. Certification Procedures. In addition to meeting the certification requirements of section 1 of this chapter, the applicant must provide evidence that the aircraft is airworthy. That evidence may include—

(1) For U.S.-manufactured, U.S. type-certificated aircraft—

(a) Provide the original or an acceptable copy of the U.S. Export C of A obtained when the aircraft originally was exported from the United States This provides a baseline for the inspection and is used to determine whether there were any deviations to the type design annotated on the Export C of A when the aircraft originally was exported. For example, equipment inconsistent with the CFR may have been incorporated to comply with the importing country's additional design requirements. All deviations must be resolved before a standard airworthiness certificate can be issued.

(b) Show that any aircraft article repaired while the aircraft was operating under non-U.S. registry was accomplished in accordance with methods acceptable to the FAA and that the article conforms to its type design. When this cannot be shown, the article must be removed.

(c) Show that any major alterations, modifications, or repairs performed while the aircraft was under non-U.S. registry was accomplished in compliance with FAA-approved data and that the aircraft conforms to its type design requirements. Under certain BASA Implementation Procedures for Airworthiness (IPA) and/or accompanying special arrangements (for example, with Australia, New Zealand, the United Kingdom, Germany, and Canada), the FAA has determined that the other CAA may approve design data associated with major alterations, modifications, or repairs that do not rise to the level of an amended TC or STC on certain categories of aircraft for which either country is the State of Design. When these data are approved directly by the CAA, or by a delegated individual or organization, they would then be subsequently recognized as FAA-approved data under the bilateral provisions. FAA ASIs and designees should not require the applicant to seek additional FAA approval(s) for data so identified unless there is clear evidence that the data are specifically erroneous or otherwise unreliable. In all other situations, use of an FAA DER to expedite the design approval process should be encouraged for any major alteration or repair that may have been incorporated without FAA approval. Persons authorized under § 43.7 must record in the maintenance records that the major alterations, modifications, or repairs conform to FAA-approved data.

Note: In appendix A, table A-1, and paragraph 320 of this order, information is provided related to the FAA's acceptance of specific repair data, conditions under which the repair data are acceptable, and the applicable bilateral agreement countries.

(d) Obtain FAA approval for or resolve any deviation from the type design.

(e) Show that any maintenance performed while the aircraft was under non-U.S. registry was performed in accordance with methods acceptable to the FAA and that the aircraft conforms to its approved type design or properly altered condition.

(f) The applicant for an airworthiness certificate whose aircraft has been maintained, modified, or repaired while under foreign registry must ensure all records required by § 91.417(b) are translated into the English language.

(2) For non-U.S.-manufactured, U.S. type-certificated aircraft—

(a) Furnish a certifying statement from the CAA of the State of Manufacture or a certifying statement from the CAA with which the United States has a third-party bilateral agreement, attesting that the aircraft is airworthy.

(b) Obtain FAA approval for any non-FAA-approved major modifications, alterations, or repairs incorporated in the aircraft.

(c) Obtain FAA approval for or resolve any deviations from the type design, for example, those annotated on the CAA's Export C of A.

(d) Show that any aircraft article overhauled, repaired, or modified while the aircraft was operating under non-U.S. registry was accomplished in accordance with methods acceptable to the FAA and that the article conforms to its type design. When this cannot be shown, the article must be removed.

324. Screening of Surplus Military Aircraft. This paragraph provides guidance and instructions on establishing the basic eligibility of surplus military aircraft for airworthiness certification under the provisions of § 21.183(d) when an FAA TC has been issued under the provisions of § 21.21, § 21.27, or § 21.29.

a. Initial Screening Inspection. The initial screening inspection will determine whether the aircraft has reasonable potential for airworthiness certification. Inspections may be performed on some, but not all, surplus military aircraft before they are offered for sale to the public. Aircraft determined to have no potential for airworthiness certification during the initial screening inspection, for example, because of an initial lack of military service historical/modification records, may later be presented for rescreening if adequate cause is demonstrated by the owner. The FAA inspector performing the initial inspection or reinspection must submit FAA Form 8130-10, Surplus Military Aircraft Inspection Record (figures 3-9 and 3-10 of this order) for each inspection to the appropriate Manufacturing Inspection Office (MIO). Aircraft may be considered potentially certifiable when the manufacturer's ID plate is

installed and the aircraft military records are adequate to determine the historical background of the aircraft. At a minimum, the initial screening inspection must consist of the following:

(1) An examination of the aircraft ID plate(s) to determine military model number, serial number, date of manufacture, and any other pertinent data.

(2) A review of military maintenance manuals and modification records affecting the subject aircraft regarding its current status of mandatory maintenance, for example, the military equivalent to FAA ADs. The records may be considered adequate for potential certification purposes when the following is determined:

(a) All major repairs/modifications and military safety-of-flight items have been properly documented in accordance with prescribed military directives.

(b) The historical records document all known replacement of articles.

(c) The historical records document a current list of life-limited articles and their current status on the subject aircraft.

(d) The following are typical DOD records that should be reviewed during the screening inspection process. These examples are for surplus U.S. Army military aircraft:

1 DA Form 2408-5, Equipment Modification Record;

2 DA Form 2408-13, Aircraft Status Information Record;

3 DA Form 2408-15, Aircraft Historical Record for Aircraft; and

4 DA Form 2408-16, Aircraft Component Historical Record.

(e) The historical records document the maximum weight limits, airspeeds, and operating regimes that have been exceeded as described in the applicable military flight manuals, technical directives, and aircraft specifications. If any of these limits have been exceeded, this information must be recorded on FAA Form 8130-10. The FAA will not make any determination as to what, if any, adverse effects may have resulted from exceeding the described limits. If these limits are exceeded, the MIDO will contact the cognizant FAA engineering office for its appraisal.

(3) An examination of the aircraft to determine its degree of completeness, state of preservation and repair, and general condition. This examination is not necessarily all-inclusive, is for information only, and does not guarantee approval of an airworthiness certificate.

b. Aircraft Condition. The condition of the aircraft and its historical records, as found during the initial screening inspection, must be noted on FAA Form 8130-10 for each aircraft. This information will be used for future reference. Upon completion of the above, the FAA inspector who conducted the initial screening inspection must render an opinion as to whether the aircraft has reasonable potential for an airworthiness certificate.

c. Screening Report. All inspection findings must be recorded on FAA Form 8130-10. The original form and appropriate attachments must be forwarded to the appropriate MIO within 5 working days after completion of the inspection (refer to figures 3-9 and 3-10 of this order).

325. Statement of Conformity—Military Aircraft (FAA Form 8130-31). This form is used to identify deviations from FAA-approved type design on new military-commercial derivative aircraft (refer to FAA Order 8110.101, *Type Certification Procedures For Military Commercial Derivative Aircraft*, for use of this form).

a. Contractual agreements between segments of the military services and a manufacturer may require the manufacturer to provide FAA Form 8130-31 (refer to figure 3-7 of this order) for each aircraft procured. Such aircraft must be type certificated and, in most cases, be manufactured under the terms of a PC.

b. By mutual agreement between the FAA and the military services, the FAA may have certain other responsibilities related to the issuance of FAA Form 8130-31. Except as provided in this paragraph, and in any specific requirements in the memorandum of understanding, the normal inspection and surveillance procedures relating to production under a TC or under a PC should be met.

c. The completed original FAA Form 8130-31 must be given to the authorized military representative. The cognizant MIDO, or FSDO when delegated, must forward a copy, including those issued by ODA manufacturers, to the appropriate MIO for indefinite retention. The copies may be forwarded either separately or all in one package at the end of the military contract or at the discretion of the directorate.

> **Note:** If such military aircraft are eventually sold as surplus and presented for civil certification, it is the applicant's responsibility to furnish FAA Form 8130-31 with the application when the form is necessary as a part of the airworthiness determination. If the applicant cannot obtain the original or a legible copy of the completed FAA Form 8130-31, the ASI or authorized designee may request a copy through their supervising office or the appropriate MIO.

326. Issuance of Standard Airworthiness Certificates, Surplus Military Aircraft. FAA Form 8100-2 (figure 3-10 of this order) may be issued when the applicant shows, and the FAA finds, that the aircraft conforms to the FAA-approved type design (including applicable modifications incorporated by an amendment to the TC or STC) and is in a condition for safe operation. A standard airworthiness certificate may be issued for a surplus military aircraft under § 21.183(d) when an FAA TC has been issued under § 21.21, § 21.27, or § 21.29. A copy of FAA Form 8130-31, which should have been issued to the military service at the time the aircraft was accepted, must be made available to the FAA representative or authorized designee by the applicant. This document is necessary to establish basic conformity, including documenting any deviations that may have been in existence at the time of manufacture. This procedure applies to a complete aircraft operated by the military service and released as a complete aircraft from the military service. Adequate military maintenance records must be made available to assist in determining conformity.

327. Certification Requirements (Applicant). The following are documents and other information that are typically used by an applicant to show compliance with the airworthiness certification requirements of § 21.183(d):

a. Proof of ownership in the form of a DOD Bill of Sale is considered to be recordable evidence and proof of ownership. DOD Form 1427, Notice of Award, Statement, and Release Document (DD 1427), is considered to be proof of ownership only. The DD 1427 is not a bill of sale and cannot be used for registering the aircraft. When an aircraft is sold for recovery of articles or reduction to scrap, a bill of sale is not issued.

b. Compliance and conformity to the TC, taking into account any STCs or any amendments to the TC. The applicant must present evidence that the aircraft conforms to the type design. The type design data used to determine conformity must be shown in the applicant's records. The following are typical records that may be used:

(1) Records maintained by the military, the manufacturer, or any other prior owner pertaining to the manufacturing, inspection, maintenance, and operation of the aircraft. Military records may be used to determine continuous conformity while the aircraft was in military service.

(2) FAA Form 8130-31 or prior airworthiness certificate issued by the FAA, if any.

(3) Records such as the TCDS or aircraft specifications that establish, by manufacturer's serial number, that the complete aircraft was produced under an FAA PC and the extent to which it was so produced.

(4) When articles have been replaced since original manufacture, the applicant must show that they are airworthy and eligible for installation.

(5) Records of any articles that have been fabricated or assembled by the applicant establishing that they conform to the type design.

(6) Records of engines, gearbox assemblies, landing gear, instruments, or other articles establishing that they originally conformed to the type design and have been maintained in accordance with applicable FAA requirements. Military maintenance and/or FAA-approved repair station records may be used for this purpose.

(7) When military records are being used to substantiate any portion(s) of conformity to FAA-approved type design, the applicant must show that the records for that specific aircraft or article are complete and accurate.

(8) An approved flight test procedure and flight checkoff form must be established (when a flight test is deemed necessary) and each aircraft must be flight tested by the applicant's pilot in accordance with that procedure. The FAA production flight test will not be conducted until an entry has been placed in the aircraft records to show that these tests have been satisfactorily completed by the applicant.

(9) The civil and military model designation is reflected on the ID plate (§ 45.13), and all airworthiness documentation and airworthiness certificates (including the certificate of registration) reflect the civil and military model designation and serial number. The military designation and serial number must be placed in parentheses in the same blocks as the civil model designation and serial number.

c. FAA Form 8130-9 with an outline explaining determination of conformity.

d. A current weight and balance report from an actual weighing of the aircraft.

e. Records indicating all applicable ADs have been complied with.

f. Records of inspection required by § 21.183(d)(2).

328. Certification Procedures. The following are some of the typical steps taken by the FAA representative or their authorized designee toward certification of the aircraft in conjunction with those specified in paragraph 306 of this order:

a. Ensure the application is complete and correct.

b. Inspect the aircraft and review records to determine the following:

(1) Compliance and conformity with the TC, taking into account any STCs or any amendments to the TC.

(2) Compliance with applicable ADs.

(3) Currency of weight and balance information from actual weighing; it is recommended that the ASI observe the actual weighing.

(4) Which inspections and tests, including flight tests, are required to find that the aircraft is in a condition for safe operation. The FAA production flight test requirements will be coordinated with FAA flight test personnel.

(5) That an approved flight test procedure and flight checkoff form has been established (when a flight test is deemed necessary) and that each aircraft is flight tested by the applicant's pilot in accordance with that procedure. The FAA production flight tests will not be conducted until an entry has been placed in the aircraft records to show that these tests have been satisfactorily completed by the applicant.

(6) Compliance with the registration and marking requirements of parts 47 and 45.

(7) That the civil model designation is reflected on the ID plate and that all of the airworthiness documentation, including registration and airworthiness certificates, reflect the civil and military model designation and serial number. The military designation and serial number should be placed in parentheses in the same blocks as the civil model designation and serial number.

329. Examples of Forms. Figures 3-1 through 3-10 of this order provide examples of forms used in the certification process.

Figure 3-1. Sample FAA Form 8100-2, Standard Airworthiness Certificate, New Aircraft (Face Side)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1 NATIONALITY AND REGISTRATION MARKS	2 MANUFACTURER AND MODEL	3 AIRCRAFT SERIAL NUMBER	4 CATEGORY
N12345	Boeing 787	43219	Transport

5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to 49 U.S.C. 44704 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefore, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.

Exceptions:

None

6 TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the FAA, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
9 Jan 2015	E.R. White *E.R. White*	NE-XX

Any iteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years or both.
THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (04-11) Supersedes Previous Edition

Figure 3-2. Sample FAA Form 8100-2, Standard Airworthiness Certificate, Aircraft Assembled from Spare and Surplus Products and Articles (Face Side)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1 NATIONALITY AND REGISTRATION MARKS	2 MANUFACTURER AND MODEL	3 AIRCRAFT SERIAL NUMBER	4 CATEGORY
N54321	Jackson 47G-4	3191HG	Normal

5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to 49 U.S.C. 44704 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefore, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.

Exceptions:

None

6 TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the FAA, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
9 Feb 2015	E.J. Smith *E.J. Smith*	SW-XX

Any iteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years or both.
THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (04-11) Supersedes Previous Edition

Figure 3-3. Sample FAA Form 8100-2, Standard Airworthiness Certificate, VLA Under § 21.183(a) (Face Side)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1 NATIONALITY AND REGISTRATION MARKS	2 MANUFACTURER AND MODEL	3 AIRCRAFT SERIAL NUMBER	4 CATEGORY
N18CE	Lite-Flight LF-1A	LF010	VLA Special Class

5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to 49 U.S.C. 44704 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefore, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
Exceptions:

None

6 TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the FAA, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
2 Feb 2014	A.J. Kool *A.J. Kool*	CE43

Any iteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years or both.
THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (04-11) Supersedes Previous Edition

Figure 3-4. Sample FAA Form 8100-2, Standard Airworthiness Certificate, EASA CS/VLA Under § 21.183(c)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1 NATIONALITY AND REGISTRATION MARKS	2 MANUFACTURER AND MODEL	3 AIRCRAFT SERIAL NUMBER	4 CATEGORY
N7569K	Aero-K AK-1-A	AK901	VLA Special Class

5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to 49 U.S.C. 44704 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefore, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
Exceptions:

None

6 TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the FAA, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
9 Mar 2014	Joe Mendez *Joe Mendez*	NW78

Any iteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years or both.
THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (04-11) Supersedes Previous Edition

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles

CHECKLIST AND INSPECTION RECORD

Project No.:

Date:

Ref. FAA Form 8130-6,

Dated:

Subject: Original Airworthiness Certificate of Aircraft Built from Spare and Surplus Articles.

A. Builder's Name and Address:

B. Aircraft Type: Airplane _____, Rotorcraft _____, Other _____
(specify)

C. Type Certificate No. _____ and Model _____ to Which Conformity Shown.

D. Name and Address of Type Certificate Holder: _____

E. Builder's Assigned Serial Number:

F. Registration No.:

G. Identification Plate Location:

H. Aircraft Inspected By:

(Signature FAA Inspector)

(District Office No. and Location)

FAA Form 8130-11 (04-11) Page 1
Local Reproduction Authorized

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles (Continued)

INSPECTION DATA

Period of Inspection: From To

Conducted At:

		Circle as appropriate. Explain "No" items under "Remarks"
1.	Did the applicant submit a properly executed Application for Airworthiness Certificate, FAA Form 8130-6?	Yes No
2.	Did the applicant submit a completed Statement of Conformity, FAA Form 8130-9?	Yes No
3.	Did the applicant submit acceptable evidence in the form of inspection records, technical data, and any other data as required to establish conformity with the approved type design?	Yes No
4.	Is the aircraft eligible for a standard airworthiness certificate, by make and model, as established by the applicable type data sheet, aircraft specification, or aircraft listing?	Yes No
5.	Is the aircraft properly registered in accordance with part 47 and is the identification number properly displayed in accordance with part 45?	Yes No
6.	Is a fireproof identification plate containing the information required by part 45 installed in a location as prescribed part 45?	Yes No
7.	Is the serial number assigned by the builder one which cannot be confused with the type certificate holder's serial number?	Yes No
8.	Do the inspection records submitted by the applicant show that the aircraft has satisfactorily completed all required inspections and tests?	Yes No
9.	Has the aircraft been flight tested in accordance with the type certificate holder's FAA-approved procedures?	Yes No

FAA Form 8130-11 (04-11) Page 2
Local Reproduction Authorized

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles (Continued)

10.	Has the flight test been appropriately recorded in the aircraft records?	Yes No
11.	Have all records and documentation been provided for the aircraft, as required by part 21?	Yes No
12.	Are all substitutions of articles and all changes to the type design appropriately FAA-approved?	Yes No
13.	Have internal inspections of gearboxes, rotor components, and other similar articles been conducted to determine that all articles are within type design tolerances?	Yes No
14.	Are all articles with service-life limits within such limits? (Show under “remarks” on the record of service life limit articles how the time in service was proved.)	Yes No
15.	Are all required items of equipment installed and are they functioning properly?	Yes No
16.	Are all required placards and instrument markings installed?	Yes No
17.	Have all applicable airworthiness directives been complied with?	Yes No
18.	Based upon inspection and the evidence submitted by the applicant, has the aircraft been found to conform to the type design?	Yes No
19.	Based upon inspection, has the aircraft been found in condition for safe operation?	Yes No

FAA Form 8130-11 (04-11) Page 3
Local Reproduction Authorized

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles (Continued)

Remarks:

FAA Form 8130-11 (04-11) Page 4
Local Reproduction Authorized

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles (Continued)

CONFORMITY RECORD

List and identify below, the documents submitted by the applicant and used by the inspector in determining conformity with the FAA approved type design. This should include reference to Conformity Inspection Records, FAA Form 8100-1, by date or serial number; the Statement of Conformity, FAA Form 8130-9; submitted by the applicant; supplemental type certificates, if applicable; airworthiness directives; and any other data submitted as evidence that the aircraft conforms to the type design, in accordance with 14 CFR 21.183(d)(1).

FAA Form 8130-11 (04-11) Page 5
Local Reproduction Authorized

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles (Continued)

WEIGHT AND BALANCE

As part of the original airworthiness inspection, the aircraft should be weighed to determine that ranges of weight and center of gravity are within the limits originally approved, as specified in the appropriate aircraft specification or type certificate data sheet.

The Weight and Balance Report should include the following:

1. Leveling Means.
2. Location of Datum.
3. Most Forward C.G. Loading.
4. Most Rearward C.G. Loading.
5. If ballast is used, the amount and location should be given.

EQUIPMENT LIST

All items of equipment which are replaceable on the aircraft shall be listed with the weights and moment arms.

Note: A verified copy of the applicant's Weight and Balance Report and Equipment List containing the above information may be substituted for this page.

FAA Form 8130-11 (04-11) Page 6
Local Reproduction Authorized

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles (Continued)

RECORD OF SERVICE LIFE COMPONENTS INSTALLED

	Article	Part or Assembly Number	Serial Number	Total Time on Article	Service Time Remaining Before Retirement
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

REMARKS:

FAA Form 8130-11 (04-11) Page 7
Local Reproduction Authorized

Figure 3-5. Sample FAA Form 8130-11, Checklist and Inspection Record, Aircraft Built From Spare and Surplus Articles (Continued)

FLIGHT TEST REPORT

Refer to, or attach a copy of, the approved flight test checkoff form completed by the FAA flight test representative.

FAA Form 8130-11 (04-11) Page 8
Local Reproduction Authorized

Figure 3-6. Sample FAA Form 8130-9, Statement of Conformity, Aircraft Built From Spare and Surplus Articles

Form Approved
OMB: 2120-0018
XX/XX/XXXX

STATEMENT OF CONFORMITY

Section I - Aircraft

1. Make	2. Model
3. Serial No.	4. Registration No.

Section II - Engine

1. Make	2. Model
3. Serial No.	

Section III - Propeller

1. Make	2. Hub Model
3. Blade Model	4. Hub Serial No.
5. Blade Serial No.	

Section IV -Certification

I hereby certify that:

☐ A. I have complied with Section 21.33(a).

☐ B. The aircraft described above, produced under type certificate (14 CFR 21 Subpart F), conforms to its type certificate, is in a condition for safe operation, and was flight checked on _____ (Date)

☐ C. The engine or propeller described above, persented herewith for type certification, conforms to the type design therefore.

☐ D. The engine or propeller described above, produced under type certificate (14 CFR 21 Subpart F), conforms to its type certificate and is in a condition for safe operation. The engine or, if applicable, the variable pitch propeller was subjected by the manufacturer to a final operational check on _____ (Date)

Deviations:

Signature of Certifier	Title
Organization	Date

FAA Form 8130-9 (4-11) Supercedes Previous Edition NSN: 0052-00-025-3002

Figure 3-6. Sample FAA Form 8130-9, Statement of Conformity, Aircraft Built From Spare and Surplus Articles (Continued)

INSTRUCTIONS

This form should be submitted to a representative of the FAA under the following circumstances:

1. By the applicant for a type certificate or a supplemental type certificate at the time he presents an aircraft or articles thereof to the FAA for tests.
2. By the applicant for a type certificate or a supplemental type certificate for each engine or propeller submitted for type certification.
3. By the type certificate holder or licensee manufacturing products under a type certificate, upon the initial transfer by him of the ownership of each product or upon application for the original issue of an aircraft airworthiness certificate, or an Airworthiness Approval Tag (FAA Form 8130-3).

This form should be completed as follows:

Section I. Aircraft. Complete this section when certification covers an aircraft.

Section II. Engine. Complete this section when certification covers an engine.

Section III. Propeller. Complete this section when certification covers a propeller.

Section IV. Certification.

Item A. Check this block when an aircraft or article thereof is presented for flight or ground tests during type certification or supplemental type certification.

Item B. Check this box when the holder or licensee of a type certificate, initially transfers the ownership of an aircraft manufactured under the type certificate, or applies for the original issuance of an airworthiness certificate.

Item C. Check this block when an engine or propeller is presented for type certification.

Item D. Check this block when an engine or propeller is presented for airworthiness approval and insert the date the product completed a final operational check.

The certification must be signed by an authorized person who holds a responsible position in the manufacturing organization.

Paperwork Reduction Act Statement:

This information on FAA form 8130-9, Statement of Conformity, is collected for the purpose of obtaining mandatory information by an applicant as stated below. The FAA uses the information to maintain and update the current database for products and articles during the type certification program and for original airworthiness approvals. The burden associated with completing Form 8130-9 is 48 minutes. Providing this information is mandatory by an applicant at the time the aircraft or articles thereof submitted for FAA tests during the type certification program, for each aircraft, aircraft engine, or propeller submitted for type certification, and by a TC holder or licensee manufacturing products under a TC: (a) with the initial transfer of ownership of each product; (b) upon application for original use of an airworthiness certificate; or (c) Export Airworthiness Approval. The information is protected under the provisions of the Privacy Act and the Privacy Act system of records DOT/FAA-801, Aircraft Registration System. An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control number associated with this collection of information is 2120-0018.

FAA Form 8130-9 (4-11) Supercedes Previous Edition NSN: 0052-00-025-3002

Figure 3-7. Sample FAA Form 8130-31, Statement of Conformity—Military Aircraft

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

STATEMENT OF CONFORMITY – MILITARY AIRCRAFT

A. DESCRIPTION OF AIRCRAFT

Manufacturer	Model	Manufacturer's Serial No.	Military Model Designation	Military Serial No.
Learjet Inc.	35A	35A-140	C-21A	84-00140

Contract No.	Registration Markings Displayed on Subject Aircraft
646-21-4641	AF-140

B. CONTRACTOR INFORMATION

Contractor Name and Facility Address:

S. A. Clause, Inc.
1 NP Avenue
Vancouver, WA 98121

FAA Delegated Organization? ☐ **Yes** ☒ **N/A**
FAA Delegated Organization:
FAA Repair Station Number:

☐ **New Aircraft Manufactured Under Production Certificate (Complete Section E)**

☐ **Modification of In-Service Aircraft Using FAA Approved Type Design (Complete Section F)**

C. GROUND INSPECTION AND FLIGHT TEST

Contractor's Ground Inspection and Flight Test		FAA Ground Inspection and/or Flight Test	
Date Completed	Approved By	Date Completed	Approved By
_____	(Signature of Authorized Company Representative)	_____	(Signature of Authorized Representative)
	(Title)		(FAA Office, Delegated Organization, Repair Station, or .Designee No.)

D. MILITARY ACCEPTANCE OF DEVIATIONS TO FAA APPROVED TYPE DESIGN

The cognizant receiving military authority acknowledges the identified deviations to the FAA approved type design for the subject commercial derivative aircraft and is responsible to determine airworthiness and final acceptance for the removal, or installation of, modifications, installations, or articles listed hereon.

(Responsible Military Airworthiness Authority or Authorized Designee)	(Date)

FAA FORM 8130-31 (04-11) SUPERCEDES FAA FORM 8130-2 Page _____ of _____ Pages

Figure 3-7. Sample FAA Form 8130-31, Statement of Conformity—Military Aircraft (Continued)

STATEMENT OF CONFORMITY – MILITARY AIRCRAFT

E. STATEMENT OF CONFORMITY – INITIAL DELIVERY OF NEW AIRCRAFT

This certifies that the aircraft described above has been manufactured in conformity with the data forming the basis for Type Certificate No. _____, and any revision or modification thereof approved by the FAA, dated as of _____.
The subject aircraft has also been modified by installation of the following FAA Approved type design changes (i.e. Supplemental Type Certificate(s), Manufacturer's approved Service Bulletin, etc.):

STC Number/Service Bulletin/Other	Description of Modification	STC Holder

☐ **There are no identified deviations to FAA approved type design.**

☐ **MILITARY DEVIATIONS. FAA conformity inspection(s) of the aircraft configuration have identified deviations in configuration from the FAA approved type design which are not FAA certified or approved, but may be required or specified by military contract. The deviations may include articles which have been either (REMOVED) or (ADDED) to the FAA approved type design configuration. (Deviations are listed in Part G of this Statement of Conformity)**

F. STATEMENT OF CONFORMITY – MODIFICATION OF IN-SERVICE MILITARY AIRCRAFT

The subject aircraft has been modified by installation of the following FAA Approved Supplemental Type Certificate(s) with the consent and permission of the Supplemental Type Certificate (STC) holder(s), Manufacturer's Approved Service Bulletins, or other listed FAA approved data. FAA inspection(s) of the subject installation(s) have determined that the modifications have been performed in accordance with the approved data, and any revision or modification thereto approved by the FAA, dated as of _____.

STC Number/Service Bulletin/Other	Description of Modification	STC Holder

☐ **There are no identified deviations to FAA approved type design.**

☐ **MILITARY DEVIATIONS. FAA conformity inspection(s) of the aircraft configuration have identified deviations in configuration from the FAA approved type design which are not FAA certified or approved, but may be required or specified by military contract. The deviations may include articles which have been either (REMOVED) or (ADDED) to the FAA approved type design configuration. These deviations are listed in Part G of this statement of conformity.**

FAA FORM 8130-31 (04-11) SUPERCEDES FAA FORM 8130-2 Page _____ of _____ Pages

Figure 3-7. Sample FAA Form 8130-31, Statement of Conformity—Military Aircraft (Continued)

STATEMENT OF CONFORMITY – MILITARY AIRCRAFT

G. DEVIATIONS TO FAA APPROVED TYPE DESIGN

The following articles are part of the FAA approved type design configuration and have been found by FAA inspection to be (REMOVED), or never installed, on the subject aircraft. Installation of these articles will be required to restore the aircraft to an FAA approved configuration:

Type Design (Article Part Number and Installation Drawing Number)	Article Description	Quantity

The following articles are not included as part of the FAA approved type design configuration and have been found by FAA inspection(s) to be installed on the subject aircraft. Removal of these articles will be required to restore the aircraft to an FAA approved configuration:

FAA FORM 8130-31 (04-11) SUPERCEDES FAA FORM 8130-2 Page _____ of _____ Pages

Figure 3-8. Sample FAA Form 8130-10, Surplus Military Aircraft Inspection Record, No Reasonable Potential for Standard Certification

SURPLUS MILITARY AIRCRAFT INSPECTION RECORD
(Initial Screening)

SUSPENSE DATE:

Section A – DESCRIPTION OF AIRCRAFT

1. MANUFACTURER	2. MODEL		3. SERIAL NUMBER	
	A. CIVIL	B. MILITARY	A. CIVIL	B. MILITARY
Hiller	UH–23D	OH–23D	1160	59–2680

4. DATE OF MANUFACTURE	5. TOTAL TIME ON ACFT.	6. FAA T.C. DATA SHEET	7. P.C. NO.
January 22, 20XX	7640:50	4H10	607

Section B – LOCATION OF AIRCRAFT

1. LOCATION	2. CONTACT AT SITE	3. TELEPHONE (*Incl. area code*)
MASDC/ILMP Davis-Mothan AFS Tucson, Arizona	R.B. Smith	602–793–4321

Section C – INSPECTION REQUESTER

1. DATE	2. NAME	3. TITLE	4. MILITARY BRANCH
September 15, 20XX	R.B. Smith	Chief, Aircraft Disposal Branch	USAF

5. ADDRESS	6. TELEPHONE (*Incl. area code*)
(Same as Location)	

Section D – FAA INSPECTION RESULTS

1A. AIRCRAFT HISTORICAL RECORDS AVAILABLE —		B. AIRCRAFT MODIFICATION RECORDS AVAILABLE —		C. RECORDS CONSIDERED —
FROM	TO	FROM	TO	☐ ADEQUATE ☒ INADEQUATE FOR A/W CERTIFICATION
December 15, 20XX	March 23, 20XX	May 10, 20XX	November 16, 20XX	

Record the following only if TC Data Sheet/Specification Limits Exceeded

2A. MAXIMUM GROSS WEIGHT			2B. MAXIMUM AIRSPEED	
(1) T.C. DATA	(2) MILITARY ACTUAL	(3) LENGTH OF TIME	(1) T.C. DATA	(2) MILITARY ACTUAL

3. CONDITION OF AIRCRAFT (*Data plate affixed*: ☒ YES ☐ NO)

Questionable condition

4. DISPOSITION (*"X" one*)

A. ☐ AIRCRAFT HAS REASONABLE POTENTIAL FOR STANDARD CERTIFICATION

B. ☒ AIRCRAFT HAS NO REASONABLE POTENTIAL FOR STANDARD CERTIFICATION

FAA INSPECTOR (*Typed and signed*)	OFFICE	TELEPHONE (FTS)	INSPECTION DATE
James A. Street James A. Street	NM–XX	964–7708	September 12, 20XX

Section E – ACTION
(*Reserved for AFS–180*)

RECONCILIATION OF EXCEEDED T.T. LIMITS	NOTIFICATION OF DOD/DSA	
RESULTS	CALL	LETTER

FAA Form 8130-10 (04-11)

Figure 3-9. Sample FAA Form 8130-10, Surplus Military Aircraft Inspection Record, Reasonable Potential for Standard Certification

SURPLUS MILITARY AIRCRAFT INSPECTION RECORD
(Initial Screening)

SUSPENSE DATE:

Section A – DESCRIPTION OF AIRCRAFT

1. MANUFACTURER	2. MODEL		3. SERIAL NUMBER	
	A. CIVIL	B. MILITARY	A. CIVIL	B. MILITARY
Hiller	UH–23D	OH–23D	1160	59–2680

4. DATE OF MANUFACTURE	5. TOTAL TIME ON ACFT.	6. FAA T.C. DATA SHEET	7. P.C. NO.
January 22, 20XX	7640:50	4H10	607

Section B – LOCATION OF AIRCRAFT

1. LOCATION	2. CONTACT AT SITE	3. TELEPHONE (*Incl. area code*)
MASDC/ILMP Davis-Mothan AFS Tucson, Arizona	R.B. Smith	602–793–4321

Section C – INSPECTION REQUESTER

1. DATE	2. NAME	3. TITLE	4. MILITARY BRANCH
September 15, 20XX	R.B. Smith	Chief, Aircraft Disposal	USAF

5. ADDRESS	6. TELEPHONE (*Incl. area code*)
(Same as Location)	

Section D – FAA INSPECTION RESULTS

1A. AIRCRAFT HISTORICAL RECORDS AVAILABLE —		1B. AIRCRAFT MODIFICATION RECORDS AVAILABLE —		C. RECORDS CONSIDERED —
FROM	TO	FROM	TO	☒ ADEQUATE ☐ INADEQUATE FOR A/W CERTIFICATION
December 15, 20XX	March 23, 20XX	May 10, 20XX	November 16, 20XX	

Record the following only if TC Data Sheet/Specification Limits Exceeded

2A. MAXIMUM GROSS WEIGHT			2B. MAXIMUM AIRSPEED	
(1) T.C. DATA	(2) MILITARY ACTUAL	(3) LENGTH OF TIME	(1) T.C. DATA	(2) MILITARY ACTUAL

3. CONDITION OF AIRCRAFT (*Data plate affixed*: ☒ YES ☐ NO)

Good condition

4. DISPOSITION (*"X"* one)

A. ☒ AIRCRAFT HAS REASONABLE POTENTIAL FOR STANDARD CERTIFICATION

B. ☐ AIRCRAFT HAS NO REASONABLE POTENTIAL FOR STANDARD CERTIFICATION

FAA INSPECTOR (*Typed and signed*)	OFFICE	TELEPHONE (FTS)	INSPECTION DATE
James A. Street James A. Street	NM–XX	964–7708	September 12, 20XX

Section E – ACTION
(*Reserved for AFS–-180*)

RECONCILIATION OF EXCEEDED T.T. LIMITS	NOTIFICATION OF DOD/DSA	
RESULTS	CALL	LETTER

FAA FORM 8130-10 (04-11)

Figure 3-10. Sample FAA Form 8100-2, Standard Airworthiness Certificate, Surplus Military Aircraft

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION

STANDARD AIRWORTHINESS CERTIFICATE

1 NATIONALITY AND REGISTRATION MARKS	2 MANUFACTURER AND MODEL	3 AIRCRAFT SERIAL NUMBER	4 CATEGORY
N34561	Hughes 369A (OH-6A)	1141 (1701)	Normal

5 AUTHORITY AND BASIS FOR ISSUANCE

This airworthiness certificate is issued pursuant to 49 U.S.C. 44704 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefore, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
Exceptions:

None

6 TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the FAA, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
8 Jul 2015	B. Porter *B. Porter*	SW-XX

Any iteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years or both.
THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (04-11) Supersedes Previous Edition

Chapter 4. Special Airworthiness Certification

Section 1. General Information

400. General. The procedures in this chapter provide guidance material associated with airworthiness certification and the issuance of FAA Form 8130-7. Part 21, subpart H, Airworthiness Certificates, and subpart I prescribe the procedural requirements for airworthiness certification for restricted, multiple, limited, primary category aircraft (PCA), light-sport, experimental purposes, and provisional. Procedures also are provided for issuance of special flight permits.

401. Application for Airworthiness Certificate. FAA Form 8130-6 is required whenever an airworthiness certificate is issued or amended. This includes changes to operating limitations that may have been prescribed. The application for a U.S. airworthiness certificate must be made by the registered owner or an authorized agent who has a notarized letter of authorization from the registered owner. The applicant or authorized agent must complete the appropriate sections and sign the application. A program letter must also be submitted to the FAA with any other document(s) required for the requested certification. Additional documentation that may be necessary for a particular special airworthiness certificate are listed in the appropriate sections within this chapter. Refer to paragraph 444 and appendix B of this order for additional guidance on program letters.

402. Certification Procedures. The following procedures are common for issuance of FAA Form 8130-7, consistent with any other specific procedures that may be prescribed in other paragraphs dealing with individual airworthiness categories. In no case may any aircraft be operated unless there is an appropriate and valid airworthiness certificate issued for that aircraft. The FAA must conduct any inspections necessary to verify the certification procedures listed below, including any other inspections found appropriate for that certification. For amateur-built aircraft, refer to paragraph 454 of this order; for LSA, refer to paragraphs 434 and 449 of this order; for experimental former military aircraft, refer to paragraph 465 of this order.

a. Aircraft Familiarization. The FAA representative should become familiar with the aircraft type and its operational history, if any, before initiating the record and aircraft inspection.

(1) Identify the aircraft model and/or series, as well as the type of engine(s), propellers, and other systems installed, as appropriate.

(2) Review existing, if any, FAA airworthiness and registration files and Program Tracking and Reporting Subsystem (PTRS) records to identify any modifications, safety issues, incidents, and accidents for the specific aircraft.

(3) Review accident and incident data for the aircraft type. Data can be retrieved from the NTSB, the FAA, and other international and military sources.

(4) Review available aircraft type club information.

(5) Review the ownership history of the aircraft, if applicable. This may provide information on how the aircraft was previously operated and maintained, which may have implications for the airworthiness inspection. The current ownership status may also affect the operation of the aircraft (for example, leasing agreements).

b. Records Inspection. The FAA representative must do the following:

(1) Obtain from the applicant a properly executed FAA Form 8130-6 and any other documents required for the certification. (Refer to chapter 8, table 8-2 of this order.)

(2) For experimental certification, obtain from the applicant a program letter that incorporates the appropriate requirements of § 21.193. Refer to paragraph 444 and appendix B of this order for additional information.

(3) Review the documentation provided by the applicant to determine that the registration requirements of part 47 have been met, and ensure the aircraft is marked in accordance with part 45.

(4) Check with AFS-750 to determine if an application for airworthiness certification has been denied for the particular aircraft. This may assist the ASI in determining aircraft eligibility.

(5) Review the aircraft records to determine that any required maintenance and inspections have been accomplished. Records should be complete and reflect no unsafe design changes.

(6) Arrange to review any inspection or technical data needed to establish conformity to type design.

(7) Review the applicant's weight and balance data for accuracy and currency for the aircraft submitted.

(8) Determine that the aircraft has been flight tested, if required. If it has not been flight tested, issue an appropriate FAA Form 8130-7, for showing compliance with the airworthiness regulations (§§ 21.189(a)(2), 21.185(d), and 91.319(b)). The flight test must be recorded in the aircraft records and certify that the requirements of § 91.319(b) have been met. Flight test time is included as "time-in-service," as defined by part 1.

(9) Determine the aircraft complies with all applicable ADs.

> **Note:** Each AD contains an applicability statement specifying the product to which it applies. ADs, unless specifically limited, apply to the make and model set forth in the applicability statement regardless of category. The TC and airworthiness certification categories are used to identify the product affected. For further guidance refer to AC 39-7, *Airworthiness Directives*.

(10) Establish that all required documentation and records have been provided for the aircraft, that is, an up-to-date approved flight manual, equipment list, and maintenance records and manuals as required by certain airworthiness parts of the CFR.

c. Aircraft Inspection. The FAA must arrange with the applicant to make the aircraft available for inspection to determine the following:

(1) The aircraft is eligible by make and model using the TCDS, aircraft specification, or aircraft listing, as applicable. This applies to primary, restricted, limited, and light-sport category aircraft and applications under § 21.195(b) and (c).

(2) The ID plate meets the requirements of § 45.11, as applicable.

(3) The information on the ID plate is correct, matches the information on FAA Form 8130-6, and is in accordance with § 45.13, as applicable.

(4) The aircraft nationality and registration marks are in accordance with part 45.

(5) The flight control system operates properly.

(6) The engine(s), propeller(s), and associated instruments operate in accordance with the manufacturer's instructions.

(7) The pitot static system and associated instruments operate properly.

(8) The instruments are marked in accordance with the approved flight manual or any other data used for aircraft involved in a type certification program.

(9) All modifications have been inspected and recorded, and are in a condition for safe operation.

(10) An Emergency Locator Transmitter (ELT) is installed, as required in accordance with § 91.207.

d. Certificate Issuance.

(1) If the aircraft meets the requirements for the certification requested, the FAA must—

(a) Make an aircraft logbook entry.

(b) Issue FAA Form 8130-7.

(c) Complete sections V and VIII of FAA Form 8130-6, as appropriate, in accordance with the instructions contained in chapter 8 of this order.

(d) Examine, review, and route the certification file in accordance with the instructions contained in chapter 8 of this order.

(2) If the aircraft does not meet the requirements for the certification requested, and the airworthiness certificate is denied, the FAA must—

(a) Write a letter to the applicant stating the reason(s) for denying the airworthiness certificate.

(b) Attach a copy of the denial letter to FAA Form 8130-6 and forward to AFS-750 to be made part of the aircraft record.

403. Special Airworthiness Certificates.

a. FAA Form 8130-7 is used for all aircraft that are certificated in categories other than *standard*.

b. An experimental certificate for R&D, showing compliance with regulations, crew training, or market surveys is effective for 1 year or less after the date of issuance.

c. The duration of amateur-built, exhibition, air racing, light-sport category, and LSA experimental certificates will be unlimited unless the FAA finds good cause that a specific period should be established. For example, an aircraft with unusual flight control or propulsion systems may warrant a limited duration certificate. Any other necessary operating limitations will be attached to this form; refer to appendix C to this order.

d. Operating limitations generally applicable to nonstandard aircraft are printed on the reverse side of FAA Form 8130-7 (figure 4-1 of this order). The FAA also may prescribe additional operating limitations deemed necessary for the special purpose involved. The additional limitations will be enumerated on a separate sheet, dated, signed, and attached to FAA Form 8130-7. Refer to the applicable sections of this chapter and appendix C to this order for information regarding additional operating limitations.

e. The first page of the operating limitations should be typed on FAA-branded paper.

Note: FAA-branded paper or a template may be provided to FAA designees for the specific purpose of issuing aircraft operating limitations. It is imperative that the FAA designee understand that the FAA-branded paper is to be used for issuing operating limitations only and will be signed using the designee's name (typed and signed) and title as an FAA designee.

404. Reserved.

Section 2. Restricted Airworthiness Certification

405. General. The procedures in this section provide guidance for the issuance of FAA Form 8130-7 for aircraft type certificated in the restricted category in accordance with § 21.25, § 21.29, or Civil Air Regulation (CAR) 8.

a. Aircraft type certificated in the restricted category for agricultural operations in accordance with the provisions of CAR 8.10(b) may continue to be operated under the provisions of the original certification.

b. Non-U.S.-manufactured aircraft that are type certificated in the restricted category under § 21.29 are eligible for FAA Form 8130-7 under § 21.185(c).

c. Non-U.S.-manufactured aircraft type certificated in any other category under § 21.29 are not eligible for certification in the restricted category unless the aircraft was issued a new or amended TC under § 21.29 or an STC under § 21.25, and subsequently was modified in accordance with the TC or STC. In this instance, § 21.185(b) is the basis for issuing the restricted airworthiness certificate.

d. An aircraft must be type certificated under § 21.25 or CAR 8 before a restricted category airworthiness certificate can be issued. In the case of an aircraft previously type certificated in another category (for example, standard category) and modified for a restricted special purpose operation under § 21.25 or CAR 8, the previously approved TC and the STC or approved data can be considered as the equivalent of a restricted TC. The TC and STC or approved design data should define the design parameters that make up the restricted category TCDS.

406. Certification Procedures. The FAA representative should follow the appropriate procedures outlined in paragraph 402 of this order.

407. Eligibility.

a. The following aircraft are eligible for a special airworthiness certificate in the restricted category:

(1) Aircraft type certificated in the restricted category and manufactured under a TC or a PC;

(2) Aircraft type certificated in the restricted category that were surplus military aircraft of the U.S. Armed Forces and manufactured in the United States;

(3) Aircraft that are imported to the United States and type certificated in the restricted category in accordance with § 21.29 and that have been certified by the State of Manufacture to conform to the approved type design; and

(4) Type-certificated, standard category aircraft that have been modified and approved for a restricted purpose under § 21.25, including aircraft type certificated under CAR 8.10(b) for agricultural operations.

b. Aircraft may be considered eligible for a special airworthiness certificate in the restricted category when found to comply with the noise requirements of part 36, in accordance with § 21.185(d).

c. Modified aircraft that were either surplus military aircraft of the U.S. Armed Forces or previously type certificated in another category (§ 21.185(b)), must satisfy the following to be considered eligible for a special airworthiness certificate in the restricted category:

(1) The modification conforms to the FAA-approved data forming the basis for the restricted TC.

(2) The aircraft is in a good state of preservation and repair and is in a condition for safe operation.

408. Special Purpose Operations. As authorized under the provisions of § 21.25, special purpose operations for restricted category aircraft include the following:

a. Agricultural (spraying, dusting, seeding, and livestock and predatory animal control).

b. Forest and wildlife conservation.

c. Aerial surveying (photography, mapping, and oil and mineral exploration).

d. Patrolling (pipelines, power lines, and canals).

e. Weather control (cloud seeding).

f. Aerial advertising (skywriting, banner towing, airborne signs, and public address systems).

g. Any other operation specified by the FAA. The following purposes are approved under § 21.25(b)(7):

(1) Rotorcraft external load operations,

(2) Carriage of cargo—incidental to the operator's business,

(3) Target towing,

(4) Search and rescue for non-transport purposes only,

(5) Space vehicle launch,

(6) Glider towing—civil-derived aircraft only, and

(7) Fuel hauling within the State of Alaska.

h. When an applicant wishes to obtain approval for a new special purpose operation previously not approved under § 21.25(b)(7), application with supporting justification should be made by letter to the Design, Manufacturing and Airworthiness Division, Attn.: AIR-111. If accepted, AIR-111 will provide public notice with request for comment in the Federal Register on the new proposed special purpose operation and will consider all comments before making a final decision.

409. Statement of Conformity. The holder or licensee of a TC for a restricted category aircraft manufactured in the United States must, on the initial transfer of ownership or application for an original airworthiness certificate for products manufactured under that TC, provide FAA Form 8130-9 (§§ 21.130 and 21.183(b)).

410. Operating Limitations. All aircraft type certificated in the restricted category must be operated in compliance with the limitations prescribed in § 91.313. The procedures for issuing the operating limitations can be found in appendix C to this order.

411. Airworthiness Certificate. When an application is made for a restricted category airworthiness certificate requesting a special purpose, that purpose must be listed in the TCDS certification basis or approved by an installed STC. The purpose(s) will be entered in block A of FAA Form 8130-7.

412. Display of Marks (Restricted). The FAA must determine that the aircraft displays nationality and registration marks in accordance with § 45.21 and that the word "RESTRICTED" is displayed in accordance with § 45.23, unless qualified, operated, and marked in accordance with § 45.22.

413.-414. Reserved.

Section 3. Multiple Airworthiness Certificates

415. General. Under the provisions of § 21.187, an applicant for an airworthiness certificate in the restricted category, and in one or more other categories, is entitled to the certificate if compliance is shown with the requirements of each category when the aircraft is configured for that category. In addition, the applicant must show that the aircraft can be converted from one category to another by removing or adding equipment by simple mechanical means.

416. Certification Procedures. The FAA must follow the applicable procedures in paragraph 402 of this order.

417. Eligibility.

a. An aircraft in the normal, utility, acrobatic, commuter, transport, or limited category may be eligible for multiple airworthiness certificates if it can be converted from one category to the restricted category in accordance with §§ 21.25 and 21.187.

b. The procedure for multiple airworthiness certification is a combination of the procedures covering standard and restricted categories, or limited and restricted categories, plus the following:

(1) The FAA must witness the applicant's method of compliance with § 21.187(a)(1) and (a)(2), and make a determination that the detailed conversion instructions covering the change from one category to the other are adequate. The operating limitations must contain a statement that each conversion from one category to the other must be in accordance with such instructions.

(2) If one of the airworthiness categories is in the standard configuration, and the aircraft will be used for the carriage of passengers for compensation or hire in the standard configuration, the FAA must evaluate the restricted special purpose operation to determine whether the airworthiness inspection prescribed in § 21.187(b) will be required each time the aircraft is converted from the restricted category to the standard category. Normally, if the special purpose operation involves carriage of maximum loads or if the aircraft is subject to contamination by pesticides or herbicides, the airworthiness inspection must be required and an operating limitation to this effect should be prescribed. It should be noted that the foregoing does not apply when the normal category operating limits have been exceeded while operating in the restricted category; however, the procedures in paragraph 421 of this order do apply.

(3) If the FAA determines that the airworthiness inspection by the FAA or an appropriately certificated mechanic is not necessary because of the nature of the special purpose, the operating limitations should so specify.

(4) To ensure each conversion of aircraft with multiple certificates is recorded, an operating limitation must prescribe that an aircraft maintenance record entry, signed by the person making the conversion, be made each time the aircraft is converted from one category to the other. If an inspection in accordance with § 21.187(b) is required, the entry must be signed by the FAA or an appropriately rated mechanic.

418. Special Purpose Operations. Section 21.25 specifies the special purpose operations for restricted category aircraft. Special purpose operations are not specified for limited and standard category aircraft.

419. Airworthiness Certificates. If the requested multiple certification covers restricted and limited categories, FAA Form 8130-7, with appropriate conditions, will be issued for each category. In addition, appropriate operating limitations will be issued with each certificate. For example, if the requested multiple certification covers a restricted category and a standard category aircraft, FAA Form 8100-2 will be issued for the standard classification, and FAA Form 8130-7, with appropriate conditions and operating limitations, will be issued for the restricted category.

420. Operating Limitations. All restricted category aircraft must be operated in accordance with § 91.313, in addition to the operational requirements of part 91. However, additional operating limitations may be prescribed by the FAA as deemed necessary for safe operation. The appropriate operating limitations will be enumerated on a separate sheet and attached to FAA Form 8130-7. The issuance date of the operating limitations must be shown on the face side of FAA Form 8130-7. Refer to appendix C to this order.

421. Operating With Multiple Airworthiness Certificates, Standard and Restricted or Limited. The primary requirements for issuance of a standard airworthiness certificate are that the aircraft is found to be in conformity with its type design and in a condition for safe operation. Any operations outside of the normal category operating limitations while operating in the restricted category (either weight or maneuvering), unless approved for that aircraft, may make it impossible to return the aircraft to the normal category unless a complete engineering evaluation is made. The evaluation must determine what effect the overweight and maneuvering

loads had on the aircraft's structure and articles. This assists in establishing an inspection and/or replacement program that will return the aircraft to a condition for safe operation in the standard configuration. Unknown stresses and possible hidden damage to the aircraft structure may have resulted because of the weights, maneuvers, and speeds used for the restricted category operations. Therefore, to retain eligibility for return to the standard airworthiness classification after being operated in the restricted category, the following would apply:

a. While being operated in the restricted category, any changes made to the aircraft that are to be retained when in normal category operation, or any operations that are outside of the normal category operating limitations, must be approved in accordance with the regulations and procedures applicable to an aircraft having a standard airworthiness certificate.

b. If the TCDS for an aircraft includes the normal and restricted categories, and the maximum gross weight and/or operating limitations for the restricted category are higher than that for the normal category, the aircraft is *not* eligible for operation in the standard classification after having been operated in the restricted category unless—

(1) The TCDS specifically states that the aircraft is eligible for operation in the normal category after having been operated at the limitations applicable to the restricted category; or

(2) If the TCDS does not have such a note or any other reference, the operations outside of the normal category operating limitations including increased gross weights must be FAA-approved.

422. Display of Marks (Restricted or Limited). The FAA should determine whether a method has been provided for displaying the word "RESTRICTED" or "LIMITED." The applicant should be advised that it is the owner/operator's responsibility to display the word "RESTRICTED" or "LIMITED" when the aircraft is in that corresponding configuration (§ 45.23(b)) unless qualified, operated, and marked in accordance with § 45.22.

423. Reserved.

Section 4. Limited Airworthiness Certification

424. General. This section provides guidance concerning the requirements of § 21.189.

425. Certification Procedures. The FAA representative must follow the applicable procedures in paragraph 402 of this order.

426. Eligibility.

a. An applicant requesting issuance of an airworthiness certificate in the "limited" category must show that the aircraft previously has been issued a limited category TC and that the aircraft conforms to that TC (§ 21.189).

b. The FAA must make the following determinations for aircraft to be issued an airworthiness certificate in the limited category:

(1) The aircraft is one of the type and models that have been issued a limited TC and the aircraft conforms to the requirements set forth in the pertinent limited category aircraft specification.

(2) In accordance with § 21.189(a)(2), the applicant must flight check the aircraft. Therefore, the FAA should, upon application, issue an experimental certificate for this purpose. When the aircraft subsequently is submitted for limited certification, the FAA must ensure the findings of the flight test are entered in the aircraft logbook and signed by the pilot who made the flights.

(3) Because surplus military aircraft may have deteriorated due to prolonged storage or inactivity, the FAA must ensure the aircraft is subjected to a thorough inspection to determine its state of preservation and repair and ensure it is in a condition for safe operation. The applicant must provide all available documentation, such as technical orders and military inspection records, to support the findings of airworthiness. The inspection may require removing rivets and cutting openings to check the condition of fraying surfaces and closed areas. If this is the case, the applicant should be advised that the inspection would be expedited if an airworthiness inspection is performed by an appropriately rated repair station or mechanic, in accordance with the requirements of part 43.

427. Operating Limitations. All limited category civil aircraft must be operated in compliance with the limitations prescribed in § 91.315. However, the FAA may prescribe additional limitations as necessary for safe operation. The additional operating limitations will be enumerated on a separate sheet and issued with FAA Form 8130-7. Refer to appendix C to this order.

428. Display of Marks (Limited). The FAA should determine that a method has been provided to mark the aircraft "LIMITED" as required by part 45.

429. Aircraft Issued Limited Category TCs. The list in table 4-1 below is provided as guidance and should not be used as an official list. Questions regarding aircraft eligible for, or presently holding, limited TCs should be directed to the applicant's local ACO.

Table 4-1. List of Aircraft Issued Limited Category TCs

Original Manufacturer	TC Holder	Model	Limited Spec No.	RGL Listing
Boeing	Transcontinental and Western	B-17F and B-17G	AL-1	LTC-1
North American	S and R	B-25, B-25C, B-25G, B-25H, B-25J, and B-25N	AL-2	AL-2
Douglas	P.V. Shields	A-26B and A-26C	AL-3	TCS L-3
Douglas	Seaboard and Western	A-24 (Navy SBD-5)	AL-4	TCS L-4
Consolidated Vultee	R.M. Lewis	PB2Y-3, PB2Y-3R, PB2Y-5, PB2-5R, and PB2Y-5Z	AL-5	LTC-5
Consolidated Vultee	Consolidated Vultee	LB-30	AL-6	LTC-6
Sikorsky	Holmes	R-4B Helicopter	AL-7	LTC-7
Grumman	Air Trading Corp	TBF-1, TBF-1C, TBM-1, TBM-1C, TBM-3, and TBM-3E	AL-8	LTC-8
Douglas	Hughes	A-20B, A-20C, A-20G, A-20H, and A-20J	AL-9	TCL-9
Lockheed	Lockheed	P-38E, P-38J, P-38L, P-38M, F-5E, F-5F, and F-5G	AL-10	LTC-10
North American	Cal Pacific	P-51C, P-51D, and P-51K	AL-11	LTC-11
Beech	Cameron	AT-10, AT-10BH, AT-10GF, and AT-10GL	AL-12	LTC-12
Lockheed	Air Trading Corp	B-34, PV-1, and PV-2	AL-13	LTC AL-13
Northrup	Northrup	P-61, P-61A, and P-61B	AL-14	LTC-14
North American	Edmondson	A-36A	AL-15	LTC-15
Curtis	Holmberg	O-52	AL-16	LTC-16

Table 4-1. List of Aircraft Issued Limited Category TCs (Continued)

Original Manufacturer	TC Holder	Model	Limited Spec No.	RGL Listing
Grumman	Utterback	J2F-3, J2F-4, J2F-5, and J2F-6	AL-17	LTC-17
Curtis-Wright	Prevost	P-40L and P-40N	AL-18	LTC-18
Sikorsky	Hel-i-cop Advertising	R-5A Helicopter	AL-19	LTC-19
Martin	Krogman	PBM-5	AL-20	LTC-20
Bell Aircraft	Bell Helicopter Textron	P-63C and P-63E	AL-21	LTC-21
North American	Mustang Aviation	BC-1	AL-22	LTC-22
Grumman	Grumman	F8F-1	AL-23	LTC-23
Chance-Vought	Chance-Vought	OS2N-1, OS2U-1, OS2U-2, and OS2U-3	AL-24	LTC-24
Grumman	Carlisle	FM-1	AL-25	LTC-25
Consolidated Vultee	Executive Airlines	L-1, L-1A, L-1B, L-1C, L-1D, L-1E, and L-1F	AL-26	LTC-26
North American	Wyatt	BT-9, BT-9A, BT-9B, and BT-9C	AL-27	LTC-27
Culver	Superior	PQ-14A, PQ-14B, YPG-14B, YPQ-14A, and Navy TD2C1	AL-28	LTC-28
Sikorsky	Stolp-Adams	R-6A and YR-6A, HOS-1 Helicopter	AL-29	LTC-29
Consolidated	Odom	C-87	AL-30	LTC-30
Curtis-Wright	Rehr	AT-9 and AT-9A	AL-31	LTC-31
North American	Franklin	BT-14	AL-32	LTC-32
Martin	Tennessee Gas Transmission Co.	B-26	AL-33	LTC-33

430. Reserved.

Section 5. Primary Category Aircraft (PCA) Airworthiness Certifications

431. General.

a. Section 21.24(b) permits the applicant to submit a special inspection and preventive maintenance program as part of the aircraft's type design or supplemental type design. The submitted program is reviewed and accepted or rejected by the Kansas City, Missouri, Aircraft Evaluation Group (MKC-AEG), with engineering input by the ACO where TC application is made. Special inspection and preventive maintenance programs for primary category rotorcraft are submitted to the Fort Worth, Texas, Aircraft Evaluation Group (FTW-AEG) with engineering input by the ACO where TC application is made. FSDOs will *not* accept or reject the programs.

b. Section 21.184(a) allows an applicant to obtain a special airworthiness certificate for PCA when the provisions of part 21 are met. PCA are not eligible for multiple category airworthiness certificates (§ 21.184(e)).

c. Section 21.184(b) allows an applicant to obtain a special airworthiness certificate for an imported PCA with a § 21.29 TC. The CAA of the State of Manufacture must certify, and the FAA must find after inspection, that the aircraft meets the criteria of § 21.24(a)(1) and is in a condition for safe operation.

d. Section 21.184(c) allows an applicant to exchange a standard airworthiness certificate for a special airworthiness certificate in the primary category. The conversion will be made through the normal STC process. The only benefit for making a conversion is so the pilot/owner may perform preventive maintenance beyond what already is allowed under appendix A to part 43. Before making the conversion, the applicant should consider the following:

(1) There must be an FAA-approved special inspection and preventive maintenance program for the specific aircraft model being converted. If there is not an approved program or if any additional preventive maintenance items are to be added, the applicant must submit the program or additional items as part of the STC design data to be approved.

(2) Only a properly qualified pilot/owner may perform preventive maintenance under the special inspection and preventive maintenance program. To be properly qualified, a pilot/owner must successfully complete an FAA-approved course given by an approved aviation maintenance technician school, the holder of the PC for the pilot/owner's aircraft, or another entity approved by the FAA.

(3) The same aircraft cannot be returned to a standard airworthiness certificate without showing that it meets all of the criteria for a standard airworthiness certificate as prescribed by the regulations. Such a showing historically has been difficult when an aircraft has remained in a different classification or category for a lengthy period. To facilitate the return to a standard airworthiness certificate, the aircraft records should indicate, among other requirements, that the aircraft has been maintained according to the manufacturer's instructions, and that any modifications to the aircraft either were removed or approved by the FAA.

432. Certification Procedures. The FAA must follow the steps in paragraph 402 of this order, and consider the following:

a. The duration of certificates is unlimited as long as the requirements of § 21.181(a)(1) are met.

b. Section 91.325 identifies the operating limitations unique to PCA.

c. Figures 4-3 through 4-5 of this order provide samples of FAA Form 8130-7 applicable to PCA.

433. Reserved.

Section 6. Light-Sport Aircraft (LSA) Category Airworthiness Certifications

434. General. A special airworthiness certificate in the light-sport category is issued to an aircraft that meets the definition of LSA, is manufactured to the applicable consensus standards, and is one of the following five classes of the LSA category: airplanes, gliders, powered parachutes, weight-shift control aircraft (commonly called trikes), and lighter-than-air aircraft (balloons and airships). When the aircraft meets all the eligibility requirements of §§ 1.1 and 21.190, it may be issued an airworthiness certificate in the LSA category. Excluded from obtaining a special airworthiness certificate in the LSA category are gyroplane aircraft and light-sport kit aircraft, which may receive an experimental purpose for operating LSA as addressed in chapter 4, section 8 of this order.

a. Definition. As defined in § 1.1, an LSA is an aircraft other than a helicopter or powered-lift that since its original certification has continued to meet the following:

(1) A maximum takeoff weight of not more than 1,320 pounds (600 kilograms) for aircraft not intended for operation on water; or 1,430 pounds (650 kilograms) for aircraft intended for operation on water.

(2) A maximum airspeed in level flight with maximum continuous power (V_H) of not more than 120 knots calibrated airspeed under standard atmospheric conditions at sea level.

(3) A maximum never-exceed speed (V_{NE}) of not more than 120 knots calibrated airspeed for a glider.

(4) A maximum stalling speed or minimum steady flight speed without the use of lift-enhancing devices (V_{S1}) of not more than 45 knots calibrated airspeed at the aircraft's maximum certificated takeoff weight and most critical CG.

(5) A maximum seating capacity of no more than two persons, including the pilot.

(6) A single, reciprocating engine, if powered.

(7) A fixed or ground-adjustable propeller, if a powered aircraft other than a powered glider.

(8) A fixed or feathering propeller system, if a powered glider.

(9) A fixed-pitch, semi-rigid, teetering, two-blade rotor system, if a gyroplane.

(10) A nonpressurized cabin, if equipped with a cabin.

(11) Fixed landing gear, except for an aircraft intended for operation on water or a glider.

(12) Fixed or retractable landing gear, or a hull, for an aircraft intended for operation on water.

(13) Fixed or retractable landing gear for a glider.

Note: Although the definition of "light-sport aircraft" in § 1.1 includes gyroplane aircraft (commonly known as gyrocopters), these aircraft are not eligible for an airworthiness certificate in the LSA category even when meeting the LSA definition. Gyroplanes may be eligible in other categories and for purposes other than LSA.

b. Eligibility. LSA are eligible for a special airworthiness certificate in the LSA category in accordance with § 21.190 when the aircraft has not been previously issued a standard, primary, restricted, limited, or provisional airworthiness certificate, or an equivalent airworthiness certificate issued by a CAA outside the United States, and the applicant provides a copy of the aircraft manufacturer's—

(1) Written operating instructions for the aircraft in the English language.

(2) Written maintenance and inspection procedures for the entire aircraft in the English language.

(3) Flight training supplement in the English language.

(4) Statement of Compliance (SOC) as described in § 21.190(c). Samples of FAA Form 8130-15, Light-Sport Aircraft/Kit Statement of Compliance, are located in figures 4-16 and 4-17 of this order. A blank copy of FAA Form 8130-15 may be obtained from the FAA forms database at www.faa.gov/forms. FAA Form 8130-15 must contain—

(a) The identity of the aircraft by make (the manufacturer's name) and model, serial number, class, date of manufacture, and consensus standard used.

(b) A statement that the aircraft meets the provisions of the identified FAA-accepted consensus standard.

(c) A statement that the aircraft conforms to the manufacturer's design data, using the manufacturer's quality assurance system that meets the identified FAA-accepted consensus standard.

(d) A statement that the manufacturer will make available to any interested person the following documents that meet the identified FAA-accepted consensus standard:

1 The aircraft operating instructions (AOI), commonly known as the pilot's operating handbook (POH);

2 The aircraft's maintenance and inspection procedures for the entire aircraft; and

3 The aircraft's flight training supplement.

(e) A statement that the manufacturer will monitor and correct safety-of-flight issues through the issuance of safety directives and a continued airworthiness system that meets the identified FAA-accepted consensus standard.

(f) A statement that at the request of the FAA, the manufacturer will provide unrestricted access to its facilities.

(g) A statement that the manufacturer, in accordance with a production acceptance test procedure that meets the applicable FAA-accepted consensus standards, has—

1 Ground and flight-tested the aircraft.

2 Found the aircraft performance acceptable.

3 Determined the aircraft is in a condition for safe operation.

c. Eligible LSA Manufactured Outside the United States. For an aircraft that has been manufactured outside the United States to be eligible for a special airworthiness certificate in the LSA category, an applicant must provide evidence to the FAA that the aircraft meets the definition of LSA according to § 1.1 and the requirements of § 21.190(b). In addition, in accordance with § 21.190(d), an applicant must provide proof of the following:

(1) The aircraft was manufactured in a country with which the United States has a bilateral agreement concerning airplanes. To verify bilateral agreements, refer to the listing of current bilateral agreements located on the FAA website or contact AIR-40.

(2) The aircraft manufactured outside the United States is eligible for an airworthiness certificate, flight authorization, or other similar certification in its State of Manufacture. Verification of this eligibility is through a statement from the manufacturer in the aircraft documentation that had the aircraft remained in the manufacturer's country, it would have been eligible for an airworthiness certificate, flight authorization, or other similar certification.

(3) When an aircraft manufactured outside the United States meets the definition of LSA in accordance with § 1.1 and is not eligible per § 21.190(b), the aircraft may be eligible for an experimental LSA certificate in accordance with §§ 21.191(i) and 21.193(e)(6). Guidance on experimental LSA certification is given in chapter 4, section 8 of this order.

d. LSA Construction and Manufacturer Requirements. The manufacturer of an aircraft for airworthiness certification in the light-sport category must manufacture the aircraft to the design requirements and quality system of the applicable FAA-accepted consensus standards. The acceptance of consensus standards will be published through a notice of availability (NOA) in the Federal Register. To meet the intent of § 21.190 and to be eligible for an airworthiness certificate in the special LSA category, the applicant must present satisfactory evidence that the aircraft was manufactured and found acceptable to the provisions of the applicable consensus standard. Evidence of acceptability is provided by the LSA manufacturer's SOC, FAA Form 8130-15, attesting to compliance with the requirements of § 21.190. A list of accepted consensus standards can be found on the FAA website (refer to paragraphs 435 and 450 of this order). When an inspection of either the documentation or aircraft demonstrates that the SOC is incorrect, the aircraft is ineligible for certification. The following are clarifications of FAA-accepted consensus standards and requirements for construction of LSA as it relates to certification in this category:

(1) The manufacturer of LSA must use those articles, components, and equipment that are in accordance with the applicable FAA-accepted consensus standard design requirements. The use of used, overhauled, or reconditioned articles and assemblies will be provided for in the LSA manufacturer's maintenance and inspection procedures in accordance with the FAA-accepted consensus standards.

(2) The manufacturer is not required to be a PAH for LSA, and LSA do not receive a TC. For an aircraft to be eligible within the light-sport category, the aircraft manufactured cannot be type certificated, but may have type-certificated components, equipment, and products incorporated in the LSA. Light-sport category aircraft are constructed to regulatory requirements and applicable FAA-accepted consensus standards. Aircraft that are constructed in whole or of component parts that do not meet and/or are not within the FAA-accepted consensus standards are not eligible for certification in special light-sport category.

(3) In accordance with § 21.190(b) and (c), the manufacturer must provide the aircraft's maintenance and inspection procedures that meet the applicable FAA-accepted consensus standards for LSA to be eligible for certification.

(4) In accordance with § 21.190(c), the manufacturer must perform an acceptance test of the aircraft with the requirements necessary to prove the aircraft's reliability and functionality. The manufacturer verifies the aircraft's proper function on the ground and in flight according to the applicable FAA-accepted consensus standard. The manufacturer must document the acceptance test results in accordance with its quality system and determine whether the aircraft is in a condition for safe operation. All production aircraft must obtain a special flight permit in accordance with § 21.197 to accomplish flight test requirements.

(5) A manufacturer that issues the SOC is responsible for the quality of the LSA end product. The manufacturer's quality assurance responsibility includes material supplied and assembly work performed by other persons, including dealers, and distributors when acting on behalf of a manufacturer. Parties who perform precertification work must be authorized by the manufacturer and addressed in the manufacturer's quality system text denoting specifics of name(s) and title(s) who are authorized to perform, and identifying the specific conditions and

process controls. A precertification LSA for which the manufacturer has not maintained oversight through to issuance of the special LSA category airworthiness certificate is not eligible for special light-sport category certification. However, the aircraft may be eligible for an experimental light-sport certificate in accordance with §§ 21.191(i) and 21.193(e). Guidance on experimental LSA certification is given in paragraph 450 of this order.

(6) Before any flight testing in the United States, the aircraft must be registered in accordance with part 47 and be issued an appropriate flight permit.

(7) An LSA manufactured in a country outside the United States must be from a country with which the United States has a bilateral agreement allowing airplanes, and must have been eligible for an airworthiness certification or similar flight authorization had it remained in that country.

e. Advising Applicants.

(1) FAA inspection of an aircraft will be limited to a general airworthiness inspection when the aircraft is submitted for airworthiness certification. The ASI or DAR will not perform any of the fabrication, construction, assembly, testing, manufacturer's quality inspections, and closing work on or to the aircraft.

(2) When the prospective applicant contacts the appropriate FAA office to inquire about the certification process for an LSA category, the FAA should provide the applicant with the applicable forms and any guidance necessary to ensure a thorough understanding of applicable regulations.

Note: When applicable, advise the applicant of the ability to use the FAA website to obtain requested forms and information.

(3) The applicant, when applying for an airworthiness certificate, should be advised on how and where to submit the appropriate application(s) and documentation to the FAA. The FAA office, when requested, should furnish the following forms:

(a) Aeronautical Center Form 8050-1;

(b) FAA Form 8130-6; and

(c) Aeronautical Center Form 8050-88A, Affidavit of Ownership for Experimental or Special Light-Sport Aircraft.

(4) At the time of airworthiness certification—

(a) The aircraft must be complete in every respect, and

(b) The applicant must submit all required documentation (refer to paragraph 435 of this order) and correct any deficient items noted during inspection. If the applicant cannot or will not provide the necessary documentation and cannot or will not have corrected noted deficiencies, the applicant should be advised that the aircraft cannot be certificated as an LSA

until satisfactory evidence is provided to substantiate that the aircraft complies with § 21.190, and all applicable regulatory requirements.

(5) Advise the applicant to provide the LSA manufacturer's documented accurate weight of the aircraft in accordance with established weight and balance or weight and loading procedures to determine, as applicable and appropriate to the class of aircraft, the aircraft's empty, gross, and most forward and aft CG location, including the weight and balance or weight and loading calculations from the initial flight. The completed weight and balance report, including load limits for flight personnel, oil, fuel, and any cargo-carrying capabilities, must be available in the aircraft, along with the other applicable placards, listings, and markings required by § 91.9.

(6) Advise the applicant that although this LSA is designed and constructed to FAA-accepted consensus standards, it also must be certificated and operated to the regulations contained in 14 CFR and applicable FAA policies.

(7) Advise the applicant that if the manufacturer's continued airworthiness operations/continued airworthiness system is not maintained or no longer exists, this causes a condition of special LSA category certification ineligibility and a reduction in continued operational safety that may cause this special airworthiness certificate to no longer be in effect. This aircraft may be eligible in another category or purpose and conditions of operation.

(8) Advise the applicant that should a special airworthiness certificate in special light-sport category under § 21.190 be granted for this aircraft and the applicant later elects to obtain an experimental certificate under § 21.191(i)(3), the LSA may not be eligible for return to special light-sport category certification.

(9) Advise the applicant that if the LSA is manufactured in a country outside the United States, it must be from a country with which the United States has a bilateral agreement allowing airplanes, and must have been eligible for an airworthiness certification or similar flight authorization had it remained in that country.

(10) Advise the applicant that before issuing the first LSA category airworthiness certificate to any new manufacturer's LSA or to a new LSA model from existing manufacturers, AIR-100 must be contacted. For powered parachutes and weight-shift control aircraft, this includes a new wing/fuselage combination that has not been previously issued a special LSA airworthiness certificate. DARs cannot issue the first LSA category airworthiness certificate for any new manufacturer's LSA or to a new LSA model from existing manufacturers. Only an assigned ASI can perform the first issuance.

435. Certification Procedures. The procedures in this section provide guidance material associated with airworthiness certification and the issuance of FAA Form 8130-7 for the light-sport category.

> **Note:** All DARs must meet the requirements specified in FAA Order 8100.8, *Designee Management Handbook*, having no conflict of interest when performing LSA airworthiness certification(s).

a. General. The FAA airworthiness certification process consists of a general airworthiness inspection to determine the aircraft is in a condition of safe operation, in accordance with § 21.190(b)(3), and a verification that the applicant's documentation supplied with the aircraft agrees with the identification, description, and applicable regulations. The inspection is accomplished only after the aircraft is completed and before the issuance of the airworthiness certificate. The ASI or DAR will not perform any of the fabrication, construction, assembly, testing, manufacturer's quality inspections, or closing work on or to the aircraft.

(1) During the airworthiness inspection process, omissions, errors and other discrepancies may be found. It is the responsibility of the ASI or DAR to inform the applicant of those discrepant items. When the applicant is not the LSA manufacturer, the corrections of discrepancies to the aircraft and the aircraft's documentation must be authorized by the manufacturer. Refer to paragraph 434d(5) of this order. Only when the required corrections have been made can an airworthiness certificate be issued. When any of the regulatory requirements for an LSA cannot be substantiated by an applicant, the LSA is not eligible for U.S. certification in light-sport.

(2) Should the ASI or DAR become aware that the manufacturer is or is about to discontinue business, change ownership or manufacturer's name, or move location, the ASI or DAR through their managing office must seek further direction from AIR-100 before issuing any LSA certificate.

(3) AIR-100 must be contacted before issuing the first airworthiness certificate to any new manufacturer's LSA or to a new LSA model from existing manufacturers. Check for certification and safety information on the FAA Make Model Directory for special LSA, located on the FAA website under Aircraft, General Aviation & Recreational Aircraft, Light Sport Aircraft. DARs must not issue the first special LSA category airworthiness certificate for any new manufacturer's LSA or to a new LSA model from existing manufacturers. Only an assigned ASI can perform the first issuance.

b. Inspection and Document Review. The FAA must—

(1) Obtain from the applicant a properly executed FAA Form 8130-6 and any other documents required for the certification. A sample of the airworthiness application for special light-sport category airworthiness certificate under § 21.190 is located in AC 21-12.

> **Note:** Light-sport category aircraft manufactured outside the United States (§ 21.190(d)) are not considered imported. Therefore, no check is used in box 11 and the origin of the aircraft is not annotated in the block.

(2) Obtain for inspection the AOI/POH, maintenance and inspection procedures, flight training supplement, and LSA manufacturer's SOC, FAA Form 8130-15 (§ 21.190(b)). Also, obtain for inspection supporting documentation; the production ground and flight test report acceptance record, the final inspection acceptance record(s), aircraft registration information, and aircraft logbook(s).

Note: The aircraft documentation will be used in conjunction with the performance of the physical examination of the aircraft. Return the documentation to the applicant upon completion of inspection or certificate issuance.

(a) Inspect the AOI/POH and the flight training supplement contents that may be incorporated into the AOI, ensuring these are physically present with and for each aircraft. These are regulatory required items for certification eligibility (§ 21.190(b)(1)).

1 Check that the AOI/POH and flight training supplement are for the aircraft being inspected. Verify the information contained in these documents is the corresponding and appropriate information for that aircraft as identified by the registration information and inspection of the aircraft.

2 Verify the aircraft's installed equipment is in accordance with the AOI. Verify the flight test report reflects the testing of the AOI-installed equipment. Verify the aircraft configuration matches the flight test report. Inspection of flight test records is located in subparagraph (d) below.

3 When inspecting an airplane, check that the AOI/POH data matches the regulatory requirements of § 1.1 Light-sport aircraft (2), (3), and (4). Ensure the airspeed indicator markings match the requirements of the AOI/POH-calculated limitations.

4 Check for inclusion of weight and balance or weight and loading data for this aircraft as equipped. This is part of the permanent record for the aircraft (as designed and manufactured), and is a basis for the associated operating and performance data located in this documentation.

5 Verify there is a reporting system for maintenance, service, and safety documented in the AOI, the maintenance and inspection procedures (manual), or both in accordance with § 21.190(c)(5). The report may be in hard copy form, electronic media, or both. In either form of media, there must be instructions on how to provide the report to the manufacturer and retain a copy of the report in the aircraft records. If the only means given is to use electronic media, the ASI or DAR will verify the electronic media and instructions are available as described.

(b) Ensure each aircraft has its appropriate maintenance and inspection procedures in accordance with § 21.190(b)(1). The following procedures may be in the form of a manual(s).

1 Verify the aircraft has the correct model maintenance manual.

2 Verify the engine/powerplant maintenance and (optional) overhaul text is included in the maintenance manual. If the engine/powerplant maintenance and (optional) overhaul text is deferred to another manual (such as the engine original equipment manufacturer's manual, for example, ROTAX), then within the light-sport manufacturer's aircraft maintenance manual the text must identify to the reader that specific manual's identification with revision and date. Ensure all manuals and procedures are marked with the specific aircraft's unique serial number. It is the same for all other parts, articles, or

appliances, type-certificated equipment or not, when the manufacturer's maintenance and inspection procedures (manual's) information is deferred to an external manual or procedure. The external manuals or procedures must be physically present with and for each aircraft.

3 Verify the maintenance and inspection procedures state who can perform each task. The LSA manufacturer is responsible for assigning the level of training and certification required.

4 When the maintenance and inspection procedures are used for pre-certification tasks, verify the person performing those tasks is authorized to do so. The authorization must be in writing by the manufacturer and included in the quality assurance manual.

5 Verify the data contained in the documentation (such as the maintenance manuals, AOI, placards, and other manuals incorporated by reference) is consistent. An example of consistency is the AOI, maintenance manual, and the aircraft's fuel tank placard all identify the same fuel requirements (with conversion noted).

6 Verify all applicable manufacturer's safety directives are entered into the aircraft's records. Verify the person making the entry into the logbook has the appropriate level of authorization to perform the task in accordance with the safety directive.

7 Check the aircraft's records for compliance to all applicable ADs. This requirement applies to LSA with type-certificated products or equipment incorporated into the design and/or as equipped. If an AD is issued against a type-certificated product installed in a light-sport category aircraft, the manufacturer of the aircraft is required in accordance with the FAA-accepted consensus standard to issue a safety directive providing instructions on how to address the safety of flight issue on the specific aircraft. Compliance also applies to LSA make- and model-specific ADs.

8 Verify any work performed (such as installations, assembly, or reassembly operations) after original production ground and flight tests has been properly authorized by the manufacturer and properly documented in the aircraft records.

(c) Review the aircraft manufacturer's LSA SOC, FAA Form 8130-15 (affidavit), for accuracy and completeness in accordance with § 21.190(b)(1)). Use this guidance and the information in paragraph 804 of this order to check FAA Form 8130-15. A sample FAA Form 8130-15 is provided in section 13, figure 4-16 of this order. Place a photocopy of the completed and inspected FAA Form 8130-15 in the certification package for FAA records retention (AFS-750). Return the original to the applicant for retention in the aircraft's records. Any changes or additions to the information on FAA Form 8130-15 must be made by the person authorized by the manufacturer in their quality assurance system.

1 Examine the contents of FAA Form 8130-15 blocks 1 through 10. Verify the information is correct and appropriate for the aircraft identified by the registration information, the required documentation, and the physical inspection of the aircraft and the aircraft's data plate.

2 Verify the applicant is using the correct form. Check the lower left-hand corner of FAA Form 8130-15 for the correct number and revision.

3 If the State of Manufacture is not the United States (block 3), verify the aircraft was manufactured in a country with which the United States has a bilateral agreement concerning airplanes. To check for bilateral agreements, refer to the listing of current bilateral agreements located on the FAA website or contact AIR-40. If there are questions regarding country of manufacture, contact AFS-750 with reference to Aeronautical Center Form 8050-88A. The country of manufacture and data must match Aeronautical Center Form 8050-88A and FAA Form 8130-15. If the country of manufacture does not match or does not have a bilateral agreement, then the aircraft cannot be certificated in LSA.

4 Examine the contents of FAA Form 8130-15 contained in blocks 11 through 30, FAA Applicable Accepted Standards and Manufacturer's Documentation. Verify the consensus standards and user manual information (standard number, revision number, and title) is correct and for the proper aircraft.

5 Manufacturers must use the current FAA-accepted consensus standard. However, manufacturers may use the previously accepted consensus standard until the NOA "may not be used" date. Compare the date of manufacture located in block 4 of FAA Form 8130-15 with the consensus standards listed in the odd numbered blocks between 11 and 29. A matrix of FAA-accepted consensus standards and the NOA information are located on the FAA website under Aircraft, General Aviation & Recreational Aircraft, Light Sport Aircraft. Further information on the FAA-accepted consensus standards may be obtained by querying "NOA" on the FAA website.

6 Examine the contents of FAA Form 8130-15 contained in the Certification block. This section of the form (affidavit) contains certifying statements and the name(s) with title(s), and signature(s) of those who attest to the construction, testing, quality assurance system, design, condition for safe operation, and FAA access to the manufacturer's facility. Verify the serial number entered in block 5 and in the certification statement are the same and the serial number of the aircraft's data plate and the aircraft's registration match. Check to ensure that at a minimum, the certification statements are worded correctly and fully contained in this portion of FAA Form 8130-15.

7 Examine the signature blocks of FAA Form 8130-15. Verify the name, signature, title, and date areas are filled in (a minimum of one name is required). The person signing the form must be designated in the manufacturer's quality assurance system. If the process documentation does not specifically identify the person authorized to sign FAA Form 8130-15, the form cannot be accepted for certification. FAA Form 8130-15 cannot be accepted if it is signed by a person not authorized in the manufacturer's quality assurance system.

Note: The following information is reference material only, provided for the ASI. Electronic copies of the consensus standards may be viewed through the FSIMS website. To navigate to the ASTM International (ASTM) consensus standards, go to the Related Info drop-down menu, Other Sites, subcategory Advisory Publications, ASTM, ASTM Custom Portal, then search by consensus standard number, and open the appropriate standard.

(d) Review the aircraft records to determine whether the required production flight test(s) and inspections have been accomplished in accordance with the eligibility requirements of § 21.190(c)(7). Photocopy(s) of the completed flight test acceptance records and aircraft configuration will be placed in the certification package for FAA records retention, and the original is retained by the applicant.

1 Check the manufacturer's flight testing acceptance record documentation. Verify the record and data are in the English language and use standard accepted aeronautical abbreviations. Verify the report indicates flight testing acceptance, the person responsible, the qualification and title of the production flight test pilot, and the location where the production flight testing was performed. Verify the data contents of the as-tested acceptance record are within the requirements of the AOI operating limitation ranges and parameters.

2 When LSA manufacturers delegate flight testing, check for the written authorization. Check that the flight test process is documented within the manufacturer's quality assurance system along with the approved flight test procedure. Verify the revision level as called out in block 18 of FAA Form 8130-15 matches the manufacturer's quality assurance system revision level. When this documentation cannot be shown or is not in compliance to the authorized processes, the production flight test acceptance report cannot be accepted to validate FAA Form 8130-15 for certification of the LSA.

Note: All special LSA pre-certification flight operations within the United States will be conducted with the appropriate special flight permit and appropriate operating limitations. Any and all testing, inspections, or qualifications affecting the eligibility and determination of the airworthiness of the aircraft must be accomplished before issuing the special light-sport category airworthiness certificate.

(e) Review final inspection/acceptance record(s). All production ground- and flight-tested aircraft that have subsequent work performed (such as installations, assembly, or reassembly operations) must have a final inspection record showing acceptance.

1 Check the final inspection and acceptance record for the person's name(s), signature, and title. When applicable, check the certificate number and type of certificate held by the person performing the work and inspections.

2 Check that the work performed on the aircraft is covered within the manufacturer's quality system documentation. This could be in the form of an authorization or instruction. When any of the requirements for an LSA cannot be substantiated by an applicant, the LSA is not eligible for U.S. certification in light-sport. When a flight test is required, check the final inspection acceptance record and logbook for entries.

3 If any work has been done after flight test that affects the weight and balance or load and balance, the weight and balance or load and balance data sheet must be recalculated/completed.

(3) Review the documentation provided by the applicant to determine that the registration requirements of part 47 have been met, and ensure the aircraft registration marks match the registration documentation.

(4) Check with AFS-750 to determine if a denial letter exists for the particular aircraft. This may assist in determining aircraft eligibility.

(5) Compare the aircraft's weight and balance or weight and loading data to the data listed in the AOI for accuracy. If a discrepancy is found, the aircraft must be reweighed. The weight scales used must meet the aircraft manufacturer's quality assurance system for calibration and be within the limits of the calibration interval. The aircraft presented must match the AOI, the aircraft equipment listing, and the regulations or it will not be certificated.

c. General Aircraft Inspection. The FAA must arrange with the applicant to make the aircraft available for inspection to—

(1) Verify the ID plate meets the requirements of § 45.11, as applicable.

(2) Verify the information on the ID plate is correct, matches the information on FAA Form 8130-6, and is in accordance with § 45.13, as applicable. Identification data required by § 45.13(a)(1), (2), and (3) are mandatory. Section 45.13(a)(4) and (5) cannot be assigned to LSA, and are therefore not applicable. If there are spaces provided with headings for (4) and (5), those spaces will be marked with "NONE." When only spaces are provided only for (4) and/or (5), no marking is required (refer to paragraph 434d(2) of this order). Identification data (6) is optional for the manufacturer/builder. Any other optional data that the manufacturer/builder includes on the data plate must be in such a manner as not to confuse the mandatory data contents.

(3) Verify the aircraft nationality and registration marks are in accordance with part 45 and, as applicable, with §§ 45.21, 45.23, 45.27, and 45.29.

(a) Check both exterior sides of the aircraft to ensure the nationality registration marking is the same on both sides and matches that of the registration documentation, and that both nationality registration numbers are displayed at a 12-inch minimum for airplanes and a 3-inch minimum for powered parachute, weight-shift control, and gliders, in accordance with § 45.29.

(b) Check all entrances of the aircraft to ensure that the aircraft has the word "LIGHT-SPORT" (hyphen optional) displayed in 2-inch minimum and 6-inch maximum Roman letters, in accordance with § 45.23.

(4) Verify the flight control systems and associated instruments operate properly.

(5) Verify the instruments are appropriately marked and required placards are installed with placement for easy reference. When checking airplanes give particular attention to the airspeed indicator. Verify the AOI/POH data matches the regulatory requirements of § 1.1 Light-sport aircraft (2), (3), and (4), and that the markings within the airspeed indicator match the AOI/POH-calculated data for indicated airspeed limitations (such as V_{NE}, red line; caution range, yellow arc; normal operating range, green arc; when equipped, flap operating range, white arc with lower limit of V_{SO} at maximum weight).

(6) Verify the system controls when equipped (for example, fuel selector(s) and electrical switches/breakers) are appropriately placed, clearly marked, provide easy access and operation, and function in accordance with the manufacturer's specifications and applicable consensus standard.

(7) Verify an ELT is installed on airplanes, in accordance with § 91.207, before issuance of special LSA airworthiness certification.

(8) Verify airframe emergency parachutes that are ballistic, assisted, or deployable are properly marked, identified, and within their service dates. The aircraft must have provisions that provide for clear marking and identification of all explosive devices used in conjunction with ballistic parachutes. Markings indicating the aircraft is equipped with explosive devices must be applied externally and able to be read while standing on the ground. An airworthiness certificate in light-sport category will not be issued before meeting this requirement.

d. Certificate Issuance. Upon satisfactory completion of the records inspection, document review, and aircraft inspection, the FAA will issue the special airworthiness certificate and the operating limitations for that aircraft. The operating limitations will be attached to FAA Form 8130-7. The FAA must review the operating limitations with the applicant to ensure a clear understanding of the limitations. Operating limitations under § 21.190 may be prescribed as follows:

(1) The manufacturer of the LSA is required to certify within the SOC that the aircraft was ground and flight tested successfully, and is in condition for safe operation. The manufacturer must endorse the aircraft logbook with a statement certifying the applicable flight testing has been completed, therefore, the FAA will not issue operating limitations to further demonstrate flight testing.

(2) The FAA will prescribe operating limitations for the operation of an LSA for an unlimited duration, as appropriate.

(3) The FAA may prescribe any additional limitations deemed necessary in the interest of safety.

(4) If the aircraft meets the requirements for the requested certification, the FAA must—

(a) Make an aircraft logbook entry.

(b) Issue FAA Form 8130-7, with appropriate operating limitations. Refer to paragraph 439 of this order.

(c) Complete sections V and VIII of FAA Form 8130-6, in accordance with the instructions contained in paragraph 801 of this order.

(d) Examine, review, and route the certification file in accordance with the instructions contained in chapter 8 of this order.

(e) Place a photocopy of the completed and inspected FAA Form 8130-15 and the production flight test acceptance records in the certification package for FAA records retention.

(5) If the aircraft does not meet the requirements for the certification requested and the airworthiness certificate is denied, the ASI or DAR must—

(a) Write a letter to the applicant stating the reason(s) for denying the airworthiness certificate.

(b) Attach a copy of the denial letter and when applicable, copies of the substantiating documentation to FAA Form 8130-6, and forward it to AFS-750 to be made part of the aircraft record.

e. Change of Special Airworthiness Certificates From an Experimental Category to Special LSA Category. An LSA that has been previously issued an experimental airworthiness certificate may be eligible for certification in the light-sport category under the following conditions:

(1) When the light-sport prototype aircraft has been flown by the manufacturer under an experimental R&D certificate (refer to paragraph 449g of this order) to ensure there are no adverse flight characteristics in accordance with § 91.319(b), and the manufacturer provides the necessary documentation (§ 21.190) with the appropriate FAA forms and applications. An FAA aircraft inspection is required and new operating limitations are issued for this aircraft, certificate, and category.

(2) If the LSA was converted from a special light-sport category airworthiness certificate to an experimental LSA certificate (§ 21.191(i)(3)), the applicant seeking to return to the light-sport category must provide the following:

(a) All original documentation required in accordance with § 21.190.

(b) The manufacturer’s SOC for the aircraft that was used for the original issuance of the light-sport category airworthiness certificate.

(c) Proof of compliance with applicable safety directives, repairs, and safety modifications published by the manufacturer and documented in the aircraft's records in accordance with part 43.

(d) A finding and statement that the aircraft was not altered and/or modified without manufacturer approval. When the manufacturer's approval is given, it will be in written form and be serial number(s)-specific. The manufacturer's approval must also specify the current applicable revision of FAA-accepted consensus standards in effect at the time the approval was given for the alteration and/or modification. All manufacturer alteration and/or modification approvals will be made a part of the aircraft's permanent record and documented in the aircraft's records in accordance with part 43. If this is not done, the aircraft is not eligible for return to the special light-sport category.

> **Note:** An aircraft is not eligible for certification in LSA if there are any modifications, additions, or changes, approved by the manufacturer or not, that conflict with the definition of an LSA in § 1.1, the eligibility requirements of part 21, or the operating requirements of part 91. Refer to § 21.181(a)(3). If the aircraft is found ineligible, issue a denial letter and send a copy to the geographic FSDO.

(e) Evidence that the required maintenance and inspections were accomplished and documented in the aircraft's records in accordance with part 43. If not, the aircraft is not eligible for return to the special light-sport category configuration.

(f) Proof the aircraft was inspected and is in a condition for safe operation.

f. Transfer of Light-Sport Category Airworthiness Certificates. An airworthiness certificate is transferred with the aircraft (per § 21.179); for example, if there is a change of ownership or transfer of registration. There is no FAA inspection required after transfer of an aircraft with its airworthiness certificate unless it is determined that revised operating limitations are necessary. In this case, a new FAA Form 8130-7 must be issued to reflect the new date of the revised operating limitations. Therefore, the applicant must submit FAA Form 8130-6. Aircraft records also must be transferred with change of ownership (per § 91.419).

436. Prototype and Production Flight Testing.

a. Flight Testing Purpose and Coordination. The manufacturer must ground and flight test the LSA for the purpose of finding the performance acceptable and determining that each aircraft is in a condition for safe operation in accordance with § 21.190(c).

> **Note:** For the purposes of this section, a prototype aircraft is considered to be the first aircraft produced by a manufacturer before issuance of the first special LSA category airworthiness certificate for that make/model.

(1) The manufacturer must notify the closest geographic MIDO of the intent to perform production flight testing on the LSA to the applicable consensus standard, and submit the proposed geographic flight testing locations to the same MIDO a minimum of 30 days in advance of the initial proposed flight testing operations.

Note: The LSA manufacturer's production flight test plan must be in accordance with the applicable consensus standard.

(2) The ASI (refer to paragraph 202d and the note after paragraph 202d of this order) will coordinate the production flight testing activities with the responsible geographic or assigned FSDO.

(3) A special flight permit may be issued for production flight testing to allow a manufacturer to meet the requirements of § 91.203 when operating new production aircraft for the purpose of flight testing, as provided in § 21.197(a)(3). This permit must be used in conjunction with a valid Aircraft Certificate of Registration. Refer to FAA Order 8130.20 for guidance on acceptable evidence of valid registration. The special flight permit is valid only for the purpose of production flight testing. The applicable operating limitations are printed in block B on the reverse side of FAA Form 8130-7 (figure 4-1 of this order).

Note: Production flight test operating limitations baseline guidance for light-sport category aircraft are described in paragraph 438 of this order. Any other flight testing affecting the completion, eligibility, and determination of the airworthiness of the aircraft must be accomplished before issuing the special light-sport category airworthiness certificate. The aircraft must be issued a special flight permit and limitations for the purpose of flight test only.

b. Eligibility for Production Flight Testing in the United States. A manufacturer producing LSA under § 21.190 is eligible to obtain special flight permits for production flight testing provided the following conditions are met:

(1) A prototype aircraft of that LSA model and configuration has been flown by the manufacturer under an experimental R&D certificate to ensure there are no adverse flight characteristics and that production test pilots are fully familiar with the aircraft. The manufacturer must transition a prototype aircraft from experimental R&D to a special airworthiness certificate in the light-sport category to be considered an LSA manufacturer. The aircraft is then eligible for production flight testing.

(2) The applicant must show evidence acceptable to the FAA that an aircraft of the same make and model was manufactured and issued a special airworthiness certificate in the light-sport category.

(3) In conjunction with the applicable consensus standard, a production flight test procedure and checklist for the aircraft involved is used to ensure all requirements for production flight tests are fulfilled and entered into the aircraft's logbook.

(4) The aircraft is not flown by the manufacturer for purposes other than production flight tests.

(5) Limitations have been established to define the production flight test duration and area.

c. Application and Issue of Special Flight Permits for Production Flight Testing.

(1) A manufacturer producing LSA under § 21.190 is eligible to obtain special flight permits for production flight testing within the provisions established in this section. The LSA manufacturer or its agent that has been included in and is operating under the oversight of the manufacturer's quality assurance plan must be the registered owner of each aircraft to be issued a special flight permit for production flight testing.

(2) Before issuing a special flight permit for production flight testing, each aircraft must be registered with a permanent registration number assigned. Evidence of aircraft registration may be shown by Aeronautical Center Form 8050-3; Aeronautical Center Form 8050-6, Dealer's Aircraft Registration Certificate; or other electronic confirmation which AFS-750 issues as a temporary registration. When the manufacturer/applicant for initial registration does not have a dealer's registration, the pink copy of the Aeronautical Center Form 8050-1 may not be used to comply with § 91.203(a)(2) for operation of the aircraft.

(3) An LSA manufacturer or its authorized agent must apply for a special flight permit for production flight testing using FAA Form 8130-6 for each aircraft needing a production flight test. Special flight permits are not transferable from one aircraft to another.

(4) When the applicant for a special flight permit is found in compliance with all requirements, the FAA should issue FAA Form 8130-7 with the operating limitations specified in paragraph 438 of this order. The FAA may impose any additional limitations deemed necessary for safe operation. The operating limitations must be enumerated on a separate sheet, identified by the aircraft registration and serial numbers, dated, and signed. The applicant should be advised that FAA Form 8130-7 must be displayed in the aircraft in accordance with § 91.203(b).

(5) A copy of all certification documents for issuance of a special flight permit for production flight testing will be retained in the files of the issuing ASI/designee, or as directed by the designee's managing office. Certification documents for issuance of special flight permits for production flight testing are not to be sent to FAA Registry, AFS-750.

437. Flight Test Areas.

a. General. The assigned test area is prescribed in accordance with § 91.305, that is, no person may flight test an aircraft except over open water, or sparsely populated areas, having light air traffic. The FAA will, when requested, assist applicants in selecting areas that comply with § 91.305. The FAA is required to evaluate each application to determine that the flight test area does not exceed that which is reasonably required to accomplish the program.

b. Assigned Flight Test Area. All flight-testing operations of LSA must be limited to the assigned flight test area until the aircraft is shown to be controllable throughout its normal range of speeds and all maneuvers to be executed, and has not displayed any hazardous operating characteristics or design features.

(1) In the case of flight testing an aircraft from an airport surrounded by a densely populated area, but with at least one acceptable approach/departure route of flight, the FAA must

ensure a route of flight is selected that subjects the fewest persons and least property to possible hazards. The description of the area selected by the applicant and agreed to by the FAA must be made a part of the operating limitations.

(2) In the case of an aircraft located at any airport surrounded by a densely populated area and lacking any acceptable approach/departure route of flight, the FAA must deny the airworthiness certificate (special flight permit issued for production flight testing) and write a letter to the applicant stating the reason(s) for denying the proposed flight test area. The applicant must be advised to relocate the aircraft to an airport suitable for flight testing.

> **Note:** An acceptable approach/departure route of flight may be considered to exist when the route of flight provides a reasonable opportunity to execute an off-airport emergency landing that will not jeopardize other persons or property.

c. Assignment to the Flight Test Area. The period of assignment is not established by regulation but is addressed in the applicable consensus standard and by the manufacturers' requirements to ensure the airworthiness of the aircraft. When issuing a special flight permit for flight testing of LSA, the FAA should assign additional periods of time to flight test areas only when it is deemed necessary in the interest of safety.

438. Special Flight Permit for Flight Testing LSA Category Operating Limitations.

a. Operating limitations must be designed to fit the specific situation encountered. The FAA may impose any additional limitations deemed necessary in the interest of safety. The FAA must review each imposed operating limitation with the applicant to ensure the applicant understands the operating limitation.

b. The following operating limitations must be prescribed for flight testing LSA:

(1) No person may operate this aircraft for other than the purpose of meeting the requirements of § 21.190(c)(7) or § 21.197 during flight. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of part 91 and all additional limitations herein prescribed. These operating limitations are a part of a special flight permit and are to be carried in the aircraft at all times and be available to the pilot in command of the aircraft.

(2) All flights must be conducted within the geographical area described as follows. The area must be described by radius, coordinates, and/or landmarks. The designated area must be over open water or sparsely populated areas having light air traffic. The size of the area must be that required to safely conduct the anticipated maneuvers and tests.

(3) All flight tests must be conducted and recorded in accordance with an acceptance test procedure that meets the applicable FAA-accepted consensus standard.

(4) This aircraft is to be operated under visual flight rules (VFR), day only.

(5) The production test pilot is to be the sole occupant.

439. Issuance of LSA Category Aircraft Operating Limitations. Refer to appendix C to this order.

440. LSA Statement of Compliance (SOC). This SOC is also referred to as the manufacturer's SOC. It is required by §§ 21.190(b)(1)(iii) and 21.193(e)(4), and is described in § 21.190(c), which details the requirements of the manufacturer's SOC in FAA Form 8130-15. Samples of FAA Form 8130-15 are provided in figures 4-16 and 4-17 of this order. For instructions on reviewing a completed FAA Form 8130-15, refer to paragraph 804 of this order. For verification of the FAA-accepted consensus standards, refer to the FAA-accepted standards matrix and NOA information on the FAA website under Aircraft, General Aviation & Recreational Aircraft, Light Sport Aircraft, Standards.

441.-442. Reserved.

Section 7. General Experimental Airworthiness Certifications

443. General. Any U.S.-registered aircraft, other than a public aircraft, that does not have a current standard airworthiness certificate (conforming to its TC) or special airworthiness certificate cannot legally be operated until it has been issued an airworthiness certificate or special flight permit. Operations requiring the issuance of experimental certificates include those involving flight tests of certificated aircraft that have undergone design changes.

a. Operations Outside of the United States. An experimental airworthiness certificate may be issued to an aircraft located in or outside of the United States that is intended for operation in another country when the applicant has a valid purpose under § 21.191 and meets all other eligibility requirements in paragraph 444 of this order, and the aircraft is in condition for safe operation.

(1) The FAA requires that an N-registered experimental aircraft operate within the limitations of its airworthiness certificate as defined by §§ 21.191 and 91.319.

(2) In addition to the limitations of the experimental certificate, operation of an N-registered aircraft outside the U.S. national airspace must comply with § 91.703.

(3) If the applicant is requesting issuance of an airworthiness certificate for an aircraft located in a foreign country, the FAA should make the appropriate CAA aware of the aircraft, its experimental purpose, and the operating limitations that will be given to the aircraft.

(4) In accordance with article 40 of the Convention on International Civil Aviation, the CAA must provide written permission for the experimental aircraft to operate in or over its airspace, which may include additional operating limitations. In issuing that permission, the foreign CAA should be prepared to oversee the safety of the operations of the experimental aircraft in accordance with the terms of the permission. The FAA provides the same oversight to U.S.-registered experimental aircraft flight operations outside of the United States as to any other part 91 operation.

(5) The FAA cannot deny an application for an experimental airworthiness certificate because another country is unwilling to provide authorization to operate the aircraft in its airspace.

b. Experimental Airworthiness Certificates, Multipurpose. An experimental airworthiness certificate may be issued for more than one of the purposes shown in chapter 4, sections 8 through 11 of this order. When more than one purpose is requested, the issuing FAA representative must ensure adequately controlled conditions exist as specified in the operating limitations. When issuing an airworthiness certificate for the purposes of R&D, showing compliance with regulations, crew training, or market surveys, the certificate should be made effective for only the length of time reasonable to accomplish the applicant's program, and not to exceed 1 year. The issuance of multiple-purpose certificates for R&D and showing compliance should be limited to PC holders. This may be extended to modifiers (§ 21.195(c)) only when adequately substantiated, for example, for complex programs. Applicants for a multiple-purpose certificate must justify the requested purposes to the satisfaction of the FAA. PC holders or modifiers may submit a procedure that meets the requirements of paragraph 475 of this order to their local management office for approval.

(1) Options. The FAA representative may use their discretion in determining the best option for the desired use. The options include issuing multiple certificates, issuing a multipurpose certificate, or not allowing the aircraft to be used for more than one purpose.

(2) Considerations. The FAA representative should consider how the aircraft configuration may change and how the operation of the aircraft may change from one purpose to another. This information should be included in the program letter because it may impact the operating limitations issued to the applicant, and/or additional inspections may be required to transition from one purpose to another. Some operations under R&D, for example, may preclude the aircraft's use for the purpose of exhibition.

> **Example 1:** The holder of an experimental exhibition certificate seeks an experimental R&D certificate for flying as a chase aircraft in support of an R&D project. No modifications to the aircraft are necessary. An R&D certificate could be issued for the duration of the R&D project and the applicant could be allowed to hold both certificates. When the R&D project is completed, no further action is required because the applicant still holds the exhibition certificate.
>
> **Example 2:** The holder of an experimental exhibition certificate seeks an experimental R&D certificate for external stores. The aircraft will require modifications. The aircraft should only hold the R&D certificate.
>
> **Example 3:** An applicant for an experimental certificate for the purpose of operating an amateur-built aircraft mentions they intend to race the aircraft. A single certificate with both purposes listed may be appropriate in this situation.

Note: Configuration changes and operational differences should also be considered if the applicant discloses that they will be conducting public or military aircraft operations.

c. Listing of Manned Free Balloon or Glider on Special Airworthiness Certificates Issued for Experimental Purposes. An aircraft eligible for the issuance of an experimental airworthiness certificate under § 21.191 and which clearly has the predominant flight characteristics of either a manned free balloon or glider will be identified as follows: "MANNED FREE BALLOON" or "GLIDER" will be placed in parentheses following "experimental" in the Category/Designation block of FAA Form 8130-7. This procedure ensures the appropriate application of part 61, Certification: Pilots, Flight Instructors, and Ground Instructors, concerning the medical requirements for the operation of such aircraft. Further guidance can be found in AC 21.17-2, *Type Certification—Fixed-Wing Gliders (Sailplanes) Including Powered Gliders*.

d. The requirements for issuing experimental certificates are contained in §§ 21.191, 21.193, and 21.195.

e. For the purpose of this chapter, type certification programs include TCs and STCs, as well as amendments to either.

f. Section 91.319 prescribes operating limitations that are applicable to all aircraft having experimental certificates. In addition, the FAA may prescribe other limitations as may be considered necessary under § 91.319(i).

Note: Issue operating limitations for all experimental aircraft as prescribed in chapter 4, sections 8 through 11 and appendix C to this order.

g. To operate under phase II operating limitations, the owner/operator must make a signed logbook entry attesting to meeting the requirements of § 91.319(b).

h. Pioneer Era (Pre-1914) Aircraft. Replica, reproduction, restoration, and similar aircraft based on aircraft from the pioneer era (pre-1914) require special consideration. Many of these aircraft have limited maneuverability and fly for very short distances. Requests for certification should be coordinated with the Flight Standards Service, General Aviation and Commercial Division (AFS-800) to ensure the operating limitations are appropriate for the intended operations.

i. Experimental military aircraft built under a military contract with military aircraft identification marks do not require registration or the issuance of experimental certificates for flight testing or demonstration before acceptance by the military. However, aircraft of military design built independently by manufacturers and not having military identification are required to obtain FAA registration and an experimental airworthiness certificate because such aircraft are considered civil aircraft.

j. The FAA must determine that the aircraft displays nationality and registration marks in accordance with § 45.21 and that the word "EXPERIMENTAL" is displayed in accordance with § 45.23.

k. Existing Airworthiness Certificates and Operating Limitations. All previously issued airworthiness certificates and operating limitations will remain valid unless changes are requested by the applicant or reexamined by the FAA in accordance with 49 U.S.C. 44709. When changes are requested by a certificate holder, follow all the appropriate policies and procedures of this order for issuing the certificate, including establishing and revising the operating limitations.

444. Eligibility and Program Letters. For an aircraft to be eligible for an experimental certificate, the aircraft must be registered and the applicant must satisfy one or more of the purposes stated in 14 CFR 21.191, as discussed in chapter 4, sections 8 through 11 of this order. The FAA uses the program letter to assist in establishing eligibility for an experimental certificate. The program letter must contain the required items listed in § 21.193 and be detailed enough to permit the FAA to prescribe the conditions and limitations necessary to ensure safe operation of the aircraft. Additional information and guidance concerning program letters can be found in appendix B to this order.

Note: An aircraft that has a Dealer's Aircraft Registration Certificate may be issued an experimental airworthiness certificate so the manufacturer can perform required flight tests, as well as for purposes incidental to the sale of the aircraft. In the latter case, the FAA must ensure the requirements of § 21.195 are met.

a. Purpose. The program letter must specifically state the purpose for which the aircraft is to be used. It must also describe the purpose of the experiment to include the aircraft configuration or modifications, and outline the program objectives.

(1) The use of the same aircraft for overlapping programs is acceptable, and the program letter can outline one or more programs.

(2) Upon showing compliance with § 91.319(b), the aircraft can be used to support other aircraft in the program or other experimental programs the manufacturer/applicant has underway, for example, to support flightcrew movements, to be used as a chase plane, or to carry spare engines. This support activity, in addition to the purpose for which the certificate is to be issued, should be included in the program letter or in the procedure described in paragraph 475 of this order.

b. Time. The program letter must contain the estimated number of flights or total flight hours, and the period of time (for example, days or months), required for the experiment. The FAA will evaluate the request in comparison to the program to establish an appropriate time duration for the special airworthiness certificate.

c. Area. In the program letter, the applicant must provide sufficient detail to describe the areas over which the proposed flights are to be conducted. A written description or annotated map is acceptable. It is the responsibility of the applicant to operate the aircraft in compliance with §§ 91.305 and 91.319 as appropriate, and minimize hazards to persons, property, and other aircraft. In the operating limitations, the FAA may establish boundaries of the flight test area or area of operation, including takeoff, departure, and landing routes, to minimize hazards to persons, property, and other air traffic.

d. Drawings or Photographs. Unless converted from a previously type-certificated aircraft without significant change in the external configuration, the applicant must provide three-view drawings or three-view dimensioned photographs of the aircraft.

e. Other. The applicant should include any other pertinent information necessary to safeguard the general public. An example of this would be providing any exemptions that may apply to the aircraft such as nonstandard markings or using the aircraft for hire.

445. Inspection Programs for Experimental Aircraft That Are Turbine-Powered or Weigh Over 12,500 Pounds.

a. Definitions. The following definitions are terms that may be used in the development of inspection programs for these aircraft.

(1) Overhaul. Methods, techniques, or practices for disassembling, cleaning, inspecting, repairing as necessary, reassembling, and testing in accordance with approved standards and technical data acceptable to the Administrator. Overhaul should not be confused with life limit.

(2) Life Limit. The finite/retirement time assigned to a component that requires the removal of that component from service.

(3) Shelf Life. A recommended time determined by the manufacturer for removal of a component from service.

b. Inspection Program Submittal Requirements. The applicant should submit the following material for review:

(1) Proposed Inspection Program. The submitted program for an aircraft may be a current manufacturer's program, a current military program (preferably NATO), an owner/operator-developed program, or based on a program previously approved for the same make/model. Prior FAA approval of an inspection program does not guarantee an automatic approval for a similar make/model because inspection programs are aircraft specific and will be identified by the aircraft serial number. Inspection programs are subject to amendment whenever significant changes in operating environment and/or equipment occurs.

(2) Operable Ejection Seats. The inspection program for operable ejection seats will be based on a current manufacturer's or current military program, and will include replacement intervals for shelf-life components such as pyrotechnic cartridges. Shelf-life intervals cannot be extended without the manufacturer's approval.

(3) Required Manufacturer/Military Manuals. If the manuals were not originally published in English, the applicant will submit an English translation of the original manuals. It is to the applicant's benefit to ensure the translation is performed by a technically competent individual familiar with aviation terms and practices.

(4) Substituting Materials or Replacement Parts. Changes involving the substitution of materials or replacement parts should be in accordance with accepted FAA procedures or a recognized industry standard, or based on dimensions and technical data provided by the manufacturer or information provided by an appropriate engineering evaluation. Life-limited articles specified in the applicable technical publications pertaining to the aircraft and its articles are complied with in one of the following manners:

(a) Type-Certificated Products. Replacement of life-limited parts required by § 91.409(e) is only applicable to experimental aircraft when the required replacement times are specified in the U.S. aircraft specifications or TCDS.

(b) Non-Type-Certificated Products. Unless otherwise determined by the FAA, all articles installed in non-type-certificated products operated in the experimental category, in which the manufacturer has specified limits, must include in their program an equivalent level of safety for those articles. Although the FAA recommends adherence to part replacements, achieving an equivalent level of safety for non-type-certificated products is acceptable. The article must be inspected to ensure the equivalent level of safety still renders the product in a serviceable condition for safe operation.

(5) Extension of Component Life Limits.

(a) The applicant may submit data (review by an FAA DER is encouraged), with a request to the FSDO, to extend the life limit on specific components of the aircraft beyond the manufacturer, military, and/or technical order recommended life limits. At a minimum, the data submitted by the applicant should contain the following:

1 The original strength, stress, and fatigue data for the aircraft and the pertinent parts, including other parts that may be affected by changes of the life limits and inspection intervals;

2 The methodology the designers used while developing the life limits and inspection intervals;

3 The operational history of the aircraft and parts (usage affects life limits and inspection intervals);

4 The service history of the aircraft and pertinent parts, including any repairs and modifications affecting the strength, stress, and fatigue characteristics of the parts and their effects on the parts' life limits and inspection intervals;

5 How the present operational usage differs from prior military usage;

6 Evidence that the applicant's inspection/testing techniques, for example, nondestructive inspection/nondestructive testing, are comparable to those used by the military;

7 Evidence that the methodology chosen by the owner (for example, damage tolerance with inspections versus safe-life with automatic removal) produces at least as safe a product as the military's approach.

8 A procedure to inspect the component to some appropriate physical standard, and non-destructive testing, where applicable.

(b) In cases where the data listed above is unavailable or cannot be substantiated, the components will not be eligible for any extension of life limits.

(6) Extension of Component Recommended Overhaul Times. The owner/operator may elect to continue in service any component that has reached its recommended overhaul time if an approved inspection is implemented that includes a procedure to inspect the component to an appropriate physical standard with a definitive time period for review. Testing to the standard may be accomplished in place where practicable. This inspection procedure will be submitted to the local FSDO to be included in the FAA-approved inspection program.

c. Inspection Program Content.

(1) The owner/operator-developed inspection program presented for FAA approval should reference specific details from the appropriate military/manufacturer's manuals while encompassing the scope and detail of part 43, appendix D, as appropriate.

(2) As an alternative, a military/manufacturer's inspection program may be adopted and presented for FAA approval. Specific irrelevant sections may be deleted for aircraft systems that have been removed or deactivated. However, all inspection programs will provide for a complete inspection of the aircraft within the preceding 12 calendar months.

(3) The following items should be a part of an approved inspection program:

(a) Title page that includes the aircraft manufacturer's name and the aircraft model, serial number, and registration number to which the inspection program applies; and the owner/operator's name and address.

(b) Table of contents.

(c) Log of revisions.

(d) Method of revision.

(e) List of effective pages.

(f) Introduction that includes the following:

1 A description of the inspection program with references to sections and supporting documents. These references may include standards of performance, procedures, methods, instructions, or other technical data. If section references are not specified by title, page, and revision, the referenced documents in their entirety become a part of the inspection program.

2 A statement that this inspection will be performed to ensure the aircraft is in a condition for safe operation and the inspection is performed in accordance with the procedures of the program.

3 Identification of the individual responsible for scheduling and performing the inspections, including their name and address.

4 A listing of the specific maintenance/inspection manuals for the make and model of the aircraft being certificated.

(g) Program-unique definitions and/or acronyms.

(h) A replacement schedule of life-limited/retirement items, if applicable.

(i) Procedures to ensure inspection records are kept and the following information is included:

1 Date of inspection,

2 Name and certificate number of the person performing the inspection,

3 Type of inspection, and

4 Total time of the component being inspected expressed in cycles, calendar time, hours, or any combination of these.

(j) Instructions and procedures for the conduct of inspections for the particular make and model of aircraft, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, engines, propellers, and appliances required to be inspected, including survival and emergency equipment.

(k) A schedule for performing the required inspections under the program as expressed in terms of time-in-service, calendar time, number of system operations, or any combination of these. It should also include low-utilization inspections.

(l) Additional procedures, including—

1 Special inspections such as short- and long-term storage/out-of-service inspections, hard landing inspections, and structural inspections;

2 Compliance with service letters, service bulletins, time compliance technical orders, and Ads, as well as the method to ensure compliance;

3 Corrosion inspections; and

4 Any other inspection that may be required due to unusual environmental operations or aircraft design, such as composite construction.

d. Inspection Program Approval. Approval of the inspection program is granted by a stamp of approval and the principal maintenance inspector/principal avionics inspector signature on the list of effective pages (LEP), or by some other official means of conveying approval.

e. Maintenance Requirements. The owner/operator of the aircraft will have the inspections performed as prescribed in the approved program and will, between inspections, have discrepancies repaired in accordance with the appropriate manufacturer/military manuals, instructions, and technical orders.

f. Maintenance Records. The owner/operator shall keep the records required under part 91 Section 91.417 as applicable to the aircraft.

446. Flight Test Areas.

a. General. Section 91.319(b) requires that an unproven aircraft be assigned to a flight test area. The assigned test area is prescribed in accordance with § 91.305. The FAA, when requested, should assist applicants in selecting areas that comply with § 91.305. The FAA is required to evaluate each application to determine that the flight test area does not exceed that which is reasonably required to accomplish the program.

b. Assigned Flight Test Areas. Under §§ 91.319(b) and 91.305, all initial flight operations of experimental aircraft must be limited to the assigned flight test area until the aircraft is shown to be controllable throughout its normal range of speeds and all maneuvers to be executed, and has not displayed any hazardous operating characteristics or design features.

(1) In the case of the first flight of an aircraft from an airport surrounded by a densely populated area, but with at least one acceptable approach/departure corridor, the FAA must ensure the selected flight corridor subjects the least number of persons and property to possible hazards. In addition, upon leaving such an airport, the aircraft must be required to operate from an outlying airport until its controllability and safety are established, after which the aircraft may return to its base and use the established corridor for subsequent operations. The description of the area selected by the applicant and agreed to by the FAA must be made a part of the operating limitations.

(2) In the case of an aircraft located at an airport surrounded by a densely populated area and lacking any acceptable approach/departure corridor, the FAA may issue the airworthiness certificate. An operating limitation prohibiting operation at that airport must be included. The applicant must be advised to relocate the aircraft by other means to a suitable airport.

> **Note:** An acceptable approach/departure corridor exists when the corridor provides reasonable opportunity(s) to execute an off-airport emergency landing that will not jeopardize other persons or property.

c. Operation Within an Assigned Flight Test Area. Except for amateur-built aircraft, there are no specific flight time requirements for operation within an assigned flight test area. Each case must be judged on the individual conditions, such as the type and complexity of the aircraft. For example, flight testing in conjunction with an STC modification may require

only 1 hour in an assigned flight test area while the initial operation of a prototype jet aircraft or a military surplus jet aircraft may require 20 or more hours before the requirements of § 91.319(b) can be met. In any event, the FAA should not amend the operating limitations to permit flight outside of the assigned flight test area until the applicant certifies and the FAA finds compliance with § 91.319(b). This finding by the FAA may be a review of the aircraft records containing a statement by the pilot that the aircraft is controllable throughout its normal range of speeds and throughout all of the maneuvers to be executed, and has no hazardous operating characteristics or design features. Also, the maintenance history while in the test area must be satisfactory. The FAA may witness flights or inspect the aircraft if deemed necessary. The PC holder or modifier may show compliance with § 91.319(b) in accordance with its FAA-approved experimental operating procedure (refer to paragraph 475 of this order).

d. Aerobatics.

(1) Aerobatic maneuvers may be permitted while the aircraft is in the assigned flight test area if, in the FAA's judgment, the aircraft has the capability of such flight. However, these maneuvers should not be attempted until sufficient flight experience has been gained to establish that the aircraft is satisfactorily controllable.

(2) Aerobatic maneuvers that have been demonstrated in the assigned flight test area should be documented in the aircraft records. Only those aerobatic maneuvers that have been successfully accomplished should be permitted after leaving the assigned flight test area.

(3) Those aircraft owners/operators wishing to include new aerobatic maneuvers will need to make a request for a new flight test area and follow the same conditions as noted in paragraph 446d(2) of this order.

447. Operating Outside Flight Test Areas.

a. Aircraft that have satisfied the requirements outlined under paragraph 446c of this order may be operated outside of an assigned flight test area. Except as provided for in paragraph 475 of this order, operation of the aircraft outside an assigned flight test area will require issuance of a new experimental airworthiness certificate with the new amended operating limitations.

b. Before authorizing an aircraft to operate outside of an assigned flight test area, the FAA should ensure the requirements of § 91.9 have been satisfied and are available in the aircraft. The FAA should prescribe those limitations listed in appendix C to this order (as appropriate), and any others that might be appropriate. Except for amateur-built aircraft, if any major changes are made to an aircraft after it has been certificated for operation outside of a previously assigned flight test area, the cognizant FAA office must be notified. After the FAA offices have been notified and a determination is made that the aircraft needs to return to a flight test area, an amended certificate should be applied for with new limitations as needed. A new FAA Form 8130-7 is required whenever operating limitations are amended, because the date of the old limitations on the corresponding certificate would not be the same as the date of the new limitations, and alteration of the certificate to change the date is not permitted.

> **Note:** Operation of experimental exhibition aircraft is restricted to airports that are within airspace classes C, D, E, or G, except in the case of a declared

emergency or authorized operations under an airshow waiver. Before issuing operating limitations for the aircraft, the FAA will coordinate approach and departure corridors with the FSDO operations unit and the air traffic control (ATC) facility that has the geographic responsibility for the airport at which the aircraft will be based or operations conducted. In addition, the applicant will provide a highlighted aeronautical map or chart depicting the proposed operational area, including a list of the proposed alternate airports. The map/chart is part of the aircraft operating limitations and must be carried aboard the aircraft when operating.

448. Operations in Reduced Vertical Separation Minimum (RVSM) Airspace. Experimental aircraft that do not meet the requirements of § 91.180(a) may be allowed to operate in RVSM airspace in certain circumstances. The specifics are contained in § 91.180; part 91, appendix G; and the Aeronautical Information Manual. In addition, at the time of the flight, ATC must determine that the aircraft can be provided appropriate separation and that the flight will not interfere with, or impose a burden on, the operations of operators approved for RVSM operations.

a. Flights for aircraft certification and development purposes may be allowed in RVSM airspace. These flights are typically limited to gathering data to show that the aircraft can meet the minimum standards for the operation in RVSM airspace specified in part 91, appendix G.

b. Aircraft climbing or descending through RVSM flight levels without intermediate level-off, to or from flight levels above RVSM airspace, may be accommodated. The operator must provide data that the aircraft can complete a nonstop climb to flight level 430.

Section 8. Experimental LSA Airworthiness Certifications

449. General. As defined in § 1.1 and the provisions of §§ 21.191 and 21.193, an experimental purpose for the operation of LSA is categorized within six classes of aircraft: airplanes, gliders, powered parachutes, weight-shift control aircraft (commonly called trikes), gyroplanes, and lighter-than-air aircraft (balloons and airships).

Note: An aircraft is not eligible for certification in LSA if there are any modifications, additions, or changes, approved by the manufacturer or not, that conflict with the definition of an LSA in § 1.1, the eligibility requirements of part 21, or the operating requirements of part 91. If the aircraft is found ineligible, issue a denial letter and send a copy to the geographic FSDO.

a. Eligibility. Two types of LSA are eligible for an experimental airworthiness certificate:

(1) Light-sport kit aircraft or kit LSA eligible in accordance with § 21.191(i)(2) for an experimental LSA airworthiness certificate must meet the following criteria:

(a) The aircraft is manufactured to the requirements of the applicable FAA-accepted consensus standard that has been published through an NOA in the Federal Register, and manufactured by an LSA kit manufacturer issued a special airworthiness

certificate in the LSA category for an aircraft of the same make and model in accordance with § 21.193(e)(1).

(b) The manufacturer's SOC meets § 21.190(c), except for § 21.190(c)(7). Instead of meeting the requirements of § 21.190(c)(7), the manufacturer identifies assembly instructions for the aircraft that meet the applicable FAA-accepted consensus standard.

(c) The applicant is able to provide the aircraft documentation required by § 21.193(e).

(d) For an aircraft kit manufactured outside the United States, evidence that the aircraft kit was manufactured in a country with which the United States has a bilateral agreement concerning airplanes. For an aircraft assembled outside the United States from a kit, the same evidence of a bilateral agreement is required. In both instances the aircraft must be eligible for an airworthiness certificate, flight authorization, or other similar certification in its country of manufacture.

(2) Aircraft previously issued a special LSA category airworthiness certificate under § 21.190 may be eligible for an experimental LSA airworthiness certificate in accordance with § 21.191(i)(3). This may occur when—

(a) The owner/applicant elects to no longer perform the LSA maintenance or service directives, in accordance with the manufacturer's instructions and the applicable FAA-accepted consensus standards.

(b) The LSA manufacturer's continued airworthiness operations/continued airworthiness system is not maintained or no longer exists. This causes a condition of LSA ineligibility and a reduction in continued operational safety that may invalidate this special airworthiness certificate, causing it to no longer be in effect. That aircraft may be eligible in another experimental purpose with modified conditions of operation.

b. General Design and Construction.

(1) An experimental certificate under § 21.191(i)(1) will no longer be issued. There is an existing fleet of LSA with experimental certificates for the purpose of operating an LSA under § 21.191(i)(1). These aircraft did not have to meet the requirements of any consensus standard. These aircraft must not have been issued a U.S. or foreign airworthiness certificate of any type. They must continue to not meet the provisions of § 103.1; they cannot be an ultralight vehicle. These aircraft must continue to be in a condition for safe operation as demonstrated through a review of the aircraft records and flight history, and/or a series of flight tests.

(2) An LSA manufacturer's kit may be eligible for an experimental certificate for the purpose of operating an LSA under §§ 21.191(i)(2) and 21.193, provided the aircraft is constructed in accordance with the criteria set forth in the applicable consensus standard that has been identified as acceptable by the FAA. Notice of this FAA acceptance is published in the Federal Register. A list of the accepted standards can be found on the FAA website under Aircraft, General Aviation & Recreational Aircraft, Light Sport Aircraft, Standards. The aircraft must be assembled in accordance with the manufacturer's assembly instructions set forth in the

applicable consensus standard. Before certification, alterations to the kit components or deviations from the assembly process must be coordinated with and approved by the LSA kit manufacturer and documented in the aircraft records.

(3) Aircraft previously issued a special airworthiness certificate in the light-sport category under § 21.190 may be eligible for an experimental certificate for the purpose of operating an LSA under § 21.191(i)(3). These aircraft have previously been flight tested and are not required to have additional flight testing unless they have subsequent alterations, modifications, and additions or deletions to the aircraft that are not approved in writing by the LSA manufacturer and recorded in the aircraft records. Apply an appropriate time in the phase I operating limitations for flight testing of those aircraft with unapproved alterations, modifications, and additions or deletions.

(4) For a major change to the aircraft (such as an alteration, modification, addition, or deletion), the FAA may modify the experimental LSA operating limitations with special restrictions for flight testing due to the aircraft modification.

c. Kit Assembly.

(1) Eligible aircraft must be designed in accordance with the applicable FAA-accepted consensus standard, and assembled in accordance with the LSA kit manufacturer's assembly instructions to the applicable FAA-accepted consensus standards. Accordingly, the detailed design data, quality systems, and procedures will not necessarily be the same as that of the holder of a type design and PC for the production of aircraft. The components of LSA kit aircraft are not necessarily held to the requirements of type-certificated or supplemental type-certificated aircraft, or those of parts manufacturer approval status.

(2) The LSA kit does not have to meet the major portion requirements of § 21.191(g). However, the applicant must show evidence that the LSA is properly assembled in accordance with the manufacturer's assembly instructions for that aircraft and the applicable FAA-accepted consensus standard.

> **Note:** The FAA does not evaluate or approve LSA manufacturer's kits. There is no FAA listing of approved or evaluated LSA kits or manufacturers.

d. Advising Applicants.

(1) The FAA inspection of an experimental LSA will be limited to a general airworthiness inspection when the aircraft is submitted for airworthiness certification. The FAA will not perform any progressive inspections during the construction or assembly of the aircraft. The ASI or DAR will not have performed any part of the fabrication, construction, assembly, testing, or manufacturer's inspections to the aircraft.

(2) When the prospective LSA kit builder applicant contacts the appropriate FAA office, the FAA should provide the prospective LSA kit builder applicant with the applicable forms and any guidance necessary to ensure a thorough understanding of applicable regulations.

(3) When an applicant is seeking to obtain an experimental certificate for LSA and intends to use the aircraft for flight instruction for compensation or hire, the applicant should be advised that this provision expired January 31, 2010, in accordance with § 91.319. Therefore, the ASI or DAR will not issue allowance of flight instruction for compensation or hire within the operating limitation portion of the experimental LSA airworthiness certificate.

(4) An applicant seeking to obtain an experimental LSA certificate for an LSA kit aircraft should be advised that the aircraft will have to be in compliance with § 91.319(b). To show this compliance, the applicant must perform flight testing that addresses the requirements, goals, and objectives of the applicable FAA-accepted consensus standard acceptance flight test. The flight test program will be developed in accordance with the manufacturer's AOI, maintenance and inspection procedures, and flight training supplement using the applicable consensus standard ground and flight testing procedures in conjunction with the operating limitations assigned. A flight test program demonstrates that the aircraft has been adequately tested and determined to be in a condition for safe operation within the aircraft's flight envelope in accordance with § 91.319(b).

(5) The applicant seeking to obtain an experimental LSA certificate for a kit LSA should be advised the aircraft must not be modified or altered without prior manufacturer's written approval.

(6) The FAA office, when requested, should furnish an applicant for an experimental LSA certificate with the following forms:

(a) Aeronautical Center Form 8050-1;

(b) FAA Form 8130-6; and

(c) Aeronautical Center Form 8050-88A.

(7) At the time of airworthiness certification—

(a) The aircraft should be complete in every respect, and

(b) The applicant must submit all required documentation. Such documentation includes appropriate completed FAA forms, the aircraft's documentation in accordance with §§ 21.191 and 21.193, and, when applicable, the aircraft maintenance records in accordance with part 43. If the applicant cannot or will not provide the appropriate documentation, the applicant should be advised that the aircraft cannot be certificated as an experimental LSA until satisfactory evidence is provided to substantiate that the aircraft's required documentation is complete.

e. Weight and Balance.

(1) Before certification, the applicant should accurately weigh the aircraft in accordance with established weight and balance or weight and loading procedures to determine the aircraft's empty, gross, and most forward and aft CG location, when applicable, including the weight and balance or weight and loading in conjunction with the predetermined manufacturer's data for the

initial flight tests to help reduce stall, spin, and other control-related accidents. If the aircraft is constructed from a kit, the predetermined manufacturer's data should be used. The completed weight and balance or weight and loading report, including load limits for occupants, oil, fuel, and any cargo carrying capabilities, should be available on the aircraft along with the other applicable placards, listings, and markings required by § 91.9.

(2) Before certificating the aircraft, the FAA should verify the weight and balance or weight and loading data is accurate for that aircraft, that the aircraft has been weighed correctly, and that the CG and its most forward and aft CG limits are established, as applicable and appropriate to the class of aircraft.

f. Transfer of Airworthiness Certificates. An airworthiness certificate is transferred with the aircraft (§ 21.179), for example, if there is a change of ownership or transfer of registration. There is no FAA inspection required after transfer of an aircraft with its airworthiness certificate unless it is determined that revised operating limitations are necessary. In this case, a new FAA Form 8130-7 must be issued to reflect the new date of the revised operating limitations. Therefore, the applicant must submit a properly completed FAA Form 8130-6.

g. Prototype Aircraft Produced by a Light-Sport Manufacturer. When a light-sport prototype aircraft is flown by the manufacturer under an experimental R&D certificate (§ 21.191(a)) to ensure there are no adverse flight characteristics (§ 91.319(b)) and the manufacturer provides the necessary documentation (§ 21.190) with the appropriate FAA forms and applications, the aircraft is then eligible for transfer to LSA category certification.

(1) An application for airworthiness certificate in the special light-sport category or experimental LSA purpose cannot be accepted for a manufacturer's prototype (first of make or model LSA) aircraft. A method of verification for first of make or model is to query registry information for any previously U.S.-certificated LSA by that make and model (from that manufacturer) and/or check for certification and safety information on the FAA Make Model Directory for special LSA, located on the FAA website under Aircraft, General Aviation & Recreational Aircraft, Light Sport Aircraft. The FAA may first issue an experimental certificate for the purpose of R&D as long as the applicant's flight test program is in accordance with the applicable consensus standard.

(2) Following termination of an R&D program, such prototype aircraft may be eligible for an LSA category certificate, or an experimental purpose with appropriate operating limitations issued for that purpose. AIR-100 must be contacted before issuing the first LSA category (§ 21.190) airworthiness certificate to any new manufacturer's LSA or to a new LSA model from existing manufacturers.

450. Certification Procedures. The procedures in this paragraph provide guidance material associated with experimental LSA airworthiness certification and the issuance of FAA Form 8130-7.

Note: All DARs must meet the requirements specified in FAA Order 8100.8, *Designee Management Handbook*, having no conflict of interest when performing LSA airworthiness certification(s).

a. General. The FAA airworthiness certification process consists of a general airworthiness inspection of the aircraft. It is accomplished after the aircraft is completed and before the issuance of an experimental certificate. During this inspection, the FAA may not request disassembly of the aircraft. The only time disassembly must be requested is when there is a question of safety that would endanger the general public. The applicant must provide documented evidence that the aircraft has been manufactured and constructed to the applicable FAA-accepted consensus standards. The FAA will review the applicant's documentation supplied with the aircraft to verify it agrees with the identification and description given in the applicable FAA-accepted consensus standard, meets the definition of § 1.1 for certification, and meets the requirements of §§ 21.191 and 21.193 as applicable.

(1) During the airworthiness inspection process, discrepancies, omissions, and errors may be found. It is the responsibility of the ASI or DAR to inform the applicant of those discrepant items. The applicant/builder is responsible for following the manufacturer's instructions. However, the applicant/builder is not the LSA manufacturer. The discrepancies for supplied instructions, processes and procedures, manuals, and SOCs must be corrected and signed by the aircraft's manufacturer. If a discrepancy with an aircraft is found that is a manufacturer's issue, it may affect all aircraft produced. If this is discovered, contact AIR-100 for further guidance. Only when the required corrections have been made can an airworthiness certificate be issued.

(2) In no instance will the ASI or DAR have performed any of the fabrication, construction, assembly, testing, and/or manufacturer's quality inspections and closing work on or to the aircraft.

b. Inspection and Document Review. The FAA must—

(1) Obtain from the applicant a properly executed FAA Form 8130-6 and any other documents required for the certification. Samples of the airworthiness applications for experimental purpose operating LSA certificated under § 21.191(i) are located in AC 21-12. LSA kits and LSA assembled from kits manufactured outside the United States must be from a country with which the United States has a bilateral agreement concerning airplanes, and must have been eligible for an airworthiness certification or similar flight authorization had it remained in that country, in accordance with § 21.193(e)(6).

Note: Light-sport category aircraft manufactured outside the United States (§ 21.190(d)) are not considered imported. Therefore, no check is used in block 11 and an origin of the aircraft is not annotated.

(2) Obtain for inspection the AOI/POH, maintenance and inspection procedures, and flight training supplement, and the LSA manufacturer's SOC, FAA Form 8130-15 (§ 21.190(b)) as required by § 21.193(e) for LSA kits, or § 21.190(b) and (c) for previously certificated special LSA category.

(a) For LSA kits (refer to § 21.191(i)(2)), obtain for inspection supporting documentation, the manufacturer's assembly instructions and approved flight test procedures, aircraft registration information, and aircraft logbook(s).

(b) For previously certificated special LSA category aircraft, obtain for inspection supporting documentation, the production ground and flight test report acceptance record, the final inspection acceptance record(s), aircraft registration information, and aircraft logbook(s).

(c) Inspect the AOI/POH, and the flight training supplement contents which may be incorporated into the AOI, ensuring these are physically present with and for each aircraft. These are regulatory required items for certification eligibility (§ 21.190(b)(1)).

1 Check that the AOI and flight training supplement are for the aircraft being inspected. Verify the information contained in these documents is the corresponding and appropriate information for that aircraft as identified by the registration information and inspection of the aircraft.

2 Verify the aircraft's installed equipment is in accordance with the AOI.

3 When inspecting an airplane, check that the AOI/POH data matches the regulatory requirements of § 1.1 Light-sport aircraft (2), (3), and (4). Ensure the airspeed indicator markings match the requirements of the AOI/POH-calculated limitations.

4 Check for inclusion of weight and balance or weight and loading data for this aircraft as equipped. This is part of the (as designed and manufactured) permanent record for the aircraft, and is a basis for the associated operating and performance data located in this documentation.

5 Verify there is a reporting system for maintenance, service, and safety documented in the AOI, the maintenance and inspection procedures (manual), or both in accordance with § 21.190(c)(5). The report may be in hard copy form, electronic media, or both. In either form of media, there must be instructions on how to provide the report to the manufacturer and retain a copy of the report in the aircraft records. If the only means given is to use electronic media, the ASI or DAR will verify the instructions are correct for their intended use and the electronic media is available as described.

(d) Review the maintenance and inspection procedures, ensuring they are physically present with and for each aircraft, in accordance with § 21.193(e)(3).

1 Verify the maintenance and inspection procedures are correct for the model of the aircraft. The aircraft serial number must be annotated on the manual.

2 Verify the engine/powerplant maintenance and (optional) overhaul text is included in the maintenance manual. If the engine/powerplant maintenance and (optional) overhaul text is deferred to another manual (such as the engine original equipment manufacturer's manual, for example, ROTAX), then within the light-sport manufacturer's aircraft maintenance manual the text must refer the reader to the specific manual identification with revision and date. Ensure referenced manuals are marked with the specific aircraft's unique

serial number. It is the same for all other parts, articles, or appliances, type-certificated equipment or not, when the manufacturer's maintenance and inspection procedures (manual's) information is deferred to an external manual or procedure. Those referenced external manuals or procedures must be physically present with and for each aircraft, referenced, and annotated.

3 Verify the maintenance and inspection procedures state who can perform each task. The LSA manufacturer is responsible for assigning the level of training and certification required.

4 Verify the data contained in the documentation (such as the maintenance manuals, AOI, placards, and other manuals incorporated by reference) is consistent. An example of consistency is the AOI, maintenance manual(s), and aircraft's fuel tank placard all identify the same fuel requirements (with conversion noted).

5 Verify all applicable manufacturer's safety directives are entered into the aircraft's records. Verify the person making the entry into the logbook has the appropriate level of authorization to perform the task in accordance with the safety directive.

6 Check the aircraft's records for compliance to all applicable ADs. This requirement applies to LSA with type-certificated products or equipment incorporated into the design and/or as equipped. If an AD is issued against a type-certificated product installed in any experimental light-sport aircraft (except for the purpose of R&D), the manufacturer of the aircraft is required in accordance with the FAA-accepted consensus standard to issue a safety directive providing instructions on how to address the safety of flight issue on the specific aircraft. Compliance also applies to LSA make- and model-specific ADs.

(e) Review the aircraft manufacturer's LSA SOC, FAA Form 8130-15 (affidavit) for accuracy and completeness in accordance with § 21.190(b)(1). Use this guidance and the information in paragraph 804 of this order to review FAA Form 8130-15. A sample FAA Form 8130-15 is provided in figures 4-16 and 4-17 (kit) of this order. Place a photocopy of the completed and inspected FAA Form 8130-15 in the certification package for FAA records retention (AFS-750). Return the original to the applicant for retention in the aircraft's records. Any changes or additions to the information on FAA Form 8130-15 must be made by a person identified to do so in the manufacturer's quality assurance system.

1 Examine the contents of FAA Form 8130-15 blocks 1 through 10. Verify the information is correct and appropriate for the aircraft identified by the registration information, the required documentation, and the physical inspection of the aircraft and the aircraft's data plate.

2 Verify the applicant is using the correct form. Check the lower left-hand corner location of FAA Form 8130-15 for the correct number and revision. The latest revision can be verified by checking the FAA website under Forms.

3 If the country of manufacture is not the United States (block 3) as identified in §§ 21.190(d) and 21.193(e)(6), verify the aircraft or LSA kit was manufactured in a country with which the United States has a bilateral agreement concerning airplanes. To check for bilateral agreements, refer to the listing of current bilateral agreements located on the

FAA website or contact AIR-40. If there are questions regarding the country of manufacture, contact AFS-750 with reference to Aeronautical Center Form 8050-88A for the first of make or model. If the country of manufacture does not match or does not have a bilateral agreement, the aircraft cannot be certificated as LSA.

4 Examine the contents of FAA Form 8130-15 contained in blocks 11 through 30, FAA Applicable Accepted Standards, and Manufacturer's Documentation. Verify the consensus standards and user manual information (standard number, revision number, and title) are correct and for the proper aircraft. For kit-built LSA, ensure the assembly instruction consensus standard is listed.

5 Manufacturers must use the current FAA-accepted consensus standard. However, manufacturers may use the previously accepted consensus standard until the NOA "may not be used" date. Compare the date of manufacture located in block 4 of FAA Form 8130-15 with the consensus standards listed in the odd numbered blocks between 11 and 29. A matrix of FAA-accepted consensus standards and NOA information is located on the FAA website under Aircraft, General Aviation & Recreational Aircraft, Light Sport Aircraft. Further information on the FAA-accepted consensus standards may be obtained by querying "NOA" on the FAA website.

6 For LSA kits, verify that in the Comments block, in accordance with § 21.193(e)(1), a statement identifying the aircraft of the same make and model that was manufactured and assembled by the aircraft kit manufacturer and issued a special airworthiness certificate in the light-sport category is placed within this certification statement area. Evidence that an aircraft of the same make and model that was manufactured and assembled by the LSA kit manufacturer and issued a special airworthiness certificate in the light-sport category may be located elsewhere within the LSA kit documentation, but must be included and verified as part of this LSA kit certification. Verify evidence through electronic check of registry records.

7 Examine the contents of FAA Form 8130-15 contained in the Certification block. Verify there is a serial number in the blank provided in the certification statement and that the number matches block 5, the aircraft's data plate, and registration documentation. Ensure the certification statement is worded correctly in this portion of FAA Form 8130-15. For aircraft previously certificated in special light-sport category, refer to paragraph 449b(2)(e)6 of this order.

8 Examine the contents of the signature blocks on FAA Form 8130-15. Verify the name, signature, title, and date areas are filled in (minimum of one name is required). The person signing the form must be designated in the manufacturer's quality assurance system.

> **Note:** The following information is provided for the LSA ASI for reference only. Electronic copies of the consensus standards may be viewed through the FSIMS website. To navigate to the ASTM consensus standards go to Related INFO drop-down menu, other sites, subcategory Advisory Publications, ASTM, ASTM Custom Portal, then search by consensus standard number, and open the appropriate standard.

(3) Review documentation for LSA being certificated under § 21.191(i)(2). FAA Form 8130-15 is required.

(4) Review the documentation provided by the applicant to determine that the registration requirements of part 47 have been met, and ensure the aircraft registration marks match the registration documentation.

(5) Check with AFS-750 to determine if a denial letter exists for the particular aircraft. This may assist the inspector in determining aircraft eligibility.

> **Note:** AFS-750 should be contacted to ensure the N-Number has been properly issued. For example, has it been issued permanently or is it a temporary or reserved number that has not been issued permanently?

(6) Check the aircraft records to determine whether any required maintenance and inspections have been accomplished and to determine that all relevant and applicable ADs have been complied with. Records must be complete.

(7) Compare the aircraft's weight and balance or weight and loading data to the data listed in the AOI for accuracy. When a discrepancy is found during the inspection of the weight and balance or weight and loading data, the ASI or DAR will observe the weighing of the aircraft and the calculations for the data. When a discrepancy between documentation continues to exist, the aircraft cannot be certificated until the discrepant item(s) are corrected.

c. General Aircraft Inspection. The FAA must arrange with the applicant to make the aircraft available for inspection to—

(1) Verify the ID plate meets the requirements of § 45.11, as applicable.

(2) Verify the information on the ID plate is correct, matches the information on FAA Form 8130-6, and is in accordance with § 45.13, as applicable. Identification data required by § 45.13(a)(1), (2), and (3) is mandatory. Sections 45.13(a)(4) and (5) cannot be assigned to LSA, and are therefore not applicable. If there are spaces provided with headings for (4) and (5), those spaces will be marked with "NONE." When only spaces are provided for (4) and/or (5), no marking is required (refer to paragraph 434d(2) of this order). Identification data (6) is optional for the manufacturer/builder. Any other optional data that the manufacturer/builder includes on the data plate must be in such a manner as not to confuse the mandatory data contents.

(3) Verify the aircraft nationality and registration number and identification markings are in accordance with part 45 and, as applicable, with §§ 45.15, 45.21, 45.23, 45.27, and 45.29.

(a) Check both exterior sides of the aircraft to ensure the nationality registration marking is the same on both sides and matches that of the registration documentation, and both nationality registration numbers are displayed in 3-inch minimum for airplanes and a 3-inch minimum for powered parachute, weight-shift control and gliders in accordance with § 45.29(b)(1)(iii).

(b) Check all entrances of the aircraft to ensure that the aircraft has the word "EXPERIMENTAL" displayed in 2-inch minimum and 6-inch maximum Roman letters, in accordance with § 45.23.

(c) Verify the following placard is displayed in the aircraft in full view of all occupants: "PASSENGER WARNING—THIS AIRCRAFT IS AN EXPERIMENTAL AIRCRAFT AND DOES NOT COMPLY WITH FEDERAL SAFETY REGULATIONS FOR STANDARD AIRCRAFT." This applies to all classes of LSA certificated in experimental purpose for operating LSA.

(4) Verify the flight control systems and associated instruments as equipped operate properly and are appropriate for each of the six classes of LSA.

(5) Verify the cockpit instruments are appropriately marked, and needed placards are installed and placed for easy reference.

(6) Verify the system controls (for example, fuel selector(s) and electrical switches/breakers) are appropriately placed, clearly marked, provide easy access and operation, and function in accordance with the manufacturer's instructions and specification documentation.

(7) Verify an ELT is installed on airplanes when required, and is in accordance with § 91.207, before issuance of the airworthiness certification.

(8) Verify airframe emergency parachutes that are ballistic, assisted, or deployable are properly marked and identified. The aircraft must have provisions that provide for clear marking and identification of all explosive devices used in conjunction with ballistic parachutes. Markings indicating the aircraft is equipped with explosive devices must be applied externally and able to be read while standing on the ground. An airworthiness certificate will not be issued before meeting this requirement.

d. Certificate Issuance. Upon satisfactory completion of the records inspection, documentation review, and aircraft inspection, the FAA will issue the special airworthiness certificate for the purpose of operating an experimental LSA with appropriate operating limitations. The operating limitations must be attached to FAA Form 8130-7. The FAA must review the operating limitations with the applicant to ensure a clear understanding. The FAA may elect to issue an experimental LSA airworthiness certificate on a one-time basis to determine that the aircraft meets the requirements of § 91.319(b). When the airworthiness certificate is to be issued for an unlimited duration, the operating limitations may be prescribed in two phases in the same document as follows:

(1) For the phase I limitations, the FAA must prescribe all operating limitations appropriate for the applicant to demonstrate compliance with § 91.319(b) in the assigned flight test area. This includes a limitation requiring the owner/operator to endorse the aircraft logbook with a statement certifying that the prescribed flight hours have been completed, and the aircraft has been shown to comply with § 91.319(b) and the requirements of the applicable consensus standard. The owner/operator may then operate in accordance with phase II.

(2) For the phase II limitations, the FAA may prescribe operating limitations for experimental LSA for an unlimited duration, as appropriate.

(3) Under § 91.319(i), the FAA may prescribe any additional limitations in phase I or phase II deemed necessary in the interest of safety.

(4) If the aircraft meets all the requirements for the certification, the FAA must—

(a) Make an aircraft logbook entry.

(b) Issue FAA Form 8130-7 with appropriate operating limitations.

(c) Complete sections V and VIII of FAA Form 8130-6, in accordance with the instructions contained in paragraph 801 of this order.

(d) Examine, review, and route the certification file in accordance with the guidance of this paragraph and the instructions contained in chapter 8 of this order.

(e) Ensure a photocopy of the completed and as-inspected FAA Form 8130-15 will be placed in the certification package for FAA records retention.

(5) If the aircraft does not meet the requirements for the certification requested and the airworthiness certificate is denied, the FAA ASI or DAR must—

(a) Write a letter to the applicant stating the reason(s) for denying the airworthiness certificate.

(b) Attach a copy of the denial letter and when applicable, copies of the substantiating documentation to FAA Form 8130-6 and forward it to AFS-750 to be made part of the aircraft record.

451. Flight Test Areas.

a. General. Section 91.319(b) requires that an unproven aircraft be assigned to a flight test area. The assigned test area is prescribed in accordance with § 91.305. The FAA, when requested, should assist applicants in selecting areas that comply with § 91.305. The FAA is required to evaluate each application to determine that the flight test area does not exceed what is reasonably required to accomplish the program.

b. Assigned Flight Test Area. Under §§ 91.305 and 91.319(b), all initial flight operations of experimental aircraft must be limited to the assigned flight test area until the aircraft is shown to be controllable throughout its normal range of speeds and all maneuvers to be executed, and has not displayed any hazardous operating characteristics or design features.

(1) In the case of the first flight of an aircraft from an airport surrounded by a densely populated area, but with at least one acceptable approach/departure route of flight, the FAA must ensure a route of flight is selected that subjects the fewest persons and least property to possible hazards. In addition, upon leaving such an airport, the aircraft should be required to operate

from an outlying airport until its controllability and safety are established, after which the aircraft may return to its base and use the established corridor for subsequent operations. The description of the area selected by the applicant and agreed to by the FAA must be made a part of the operating limitations.

(2) In the case of an aircraft located at an airport surrounded by a densely populated area and lacking any acceptable approach/departure route of flight, the FAA may issue the airworthiness certificate. However, an operating limitation prohibiting operation at that airport must be included. The applicant must be advised to relocate the aircraft by other means to a suitable airport.

> **Note:** An acceptable approach/departure route of flight may be considered to exist when the route of flight provides a reasonable opportunity to execute an off-airport emergency landing that will not jeopardize other persons or property.

c. Assignment to the Flight Test Area. Although the period of assignment is not established by regulation, the following time is suggested as a guideline when issuing airworthiness certificates for experimental LSA:

(1) LSA issued original experimental airworthiness certificates for § 21.191(i)(2) LSA must be limited to operation within an assigned flight test area for a minimum of 5 hours for all classes of LSA to determine aircraft controllability throughout its design limits.

(2) Previously noncertificated ultralight-like vehicles or other aircraft that meet the definition of an LSA as defined in § 1.1 should not be limited to operation within an assigned flight test area, provided the following are met:

(a) Evidence is shown of routine inspections;

(b) It is shown through flight records that the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, and has no hazardous operating characteristics or design features; and

(c) All aircraft records are presented.

(3) Aircraft previously issued a special airworthiness certificate in the light-sport category under § 21.190, applying for an experimental certificate for the purpose of operating LSA under § 21.191(i)(3), may not be required to complete a flight test program under phase I. The applicant must provide evidence that no unauthorized modifications or changes were made after the issuance of the original special LSA category airworthiness certificate.

(4) Following any major change, an LSA must be assigned to a flight test area for an appropriate time to conduct a flight test and evaluate that the aircraft is in a condition for safe operation. The guidance baseline for this testing is 5 hours of flight time within the flight test area. The FAA may prescribe any additional limitations and/or flight time within the flight test area deemed necessary in the interest of safety.

452. Issuance of Experimental Light-Sport Operating Limitations. Refer to appendix C to this order.

453. Reserved.

Section 9. Experimental Amateur-Built Airworthiness Certifications

454. General. Under the provisions of § 21.191(g), an amateur-built aircraft is defined as an aircraft of which the major portion has been fabricated and assembled by a person(s) who undertook the construction project solely for their own education or recreation.

a. Amateur-built aircraft may be constructed from—

(1) An amateur builder's original design, or

(2) Purchased plans or kits.

b. Some kits have been evaluated by the FAA; some have not. These evaluations are not required by the regulations, nor is a manufacturer required to have a kit evaluated by the FAA before selling it. Kit evaluations determine whether aircraft fabricated and assembled by an amateur builder from an evaluated kit may meet the major portion requirement of § 21.191(g) and be eligible for an experimental amateur-built airworthiness certificate.

c. Amateur builders who contact their local FAA managing office should be advised of the availability of forms and AC 20-27, *Certification and Operation of Amateur-Built Aircraft*, to assist them in planning their project. Refer to paragraph 459 of this order for a complete list of available guidance.

455. Eligibility.

a. Basic Guidelines. Amateur-built aircraft are eligible for a special airworthiness certificate in the experimental category, for the purpose of operating amateur-built aircraft when—

(1) The FAA finds that the aircraft complies with acceptable aeronautical standards and practices,

(2) The aircraft is in condition for safe operation, and

(3) The applicant (individual, series of individuals, or group) presents satisfactory evidence that the major portion of the aircraft was fabricated and assembled solely for their own educational or recreational purposes.

Note: Fabrication is defined as to perform work on any article such as layout, bending, countersinking, straightening, cutting, sewing, gluing/bonding, layup, forming, shaping, trimming, drilling, deburring, machining, applying protective coatings, surface preparation and priming, riveting, welding or heat treating, and transforming the article toward or into its finished state.

b. Statement of Eligibility. The applicant must submit a notarized FAA Form 8130-12, Eligibility Statement, Amateur-Built Aircraft (refer to figure 4-7 of this order), certifying the major portion was fabricated and assembled for educational or recreational purposes.

(1) The form specifies that an amateur builder identify if commercial assistance was used in the construction of the aircraft and identify the source of the assistance.

(2) Evidence and records must be available to support these statements and provided to the FAA upon request.

(3) Records that are typically requested are listed in paragraph 459e of this order.

c. Additional Information and Demonstrating Level of Knowledge. To determine level of knowledge, the FAA may ask the applicant to provide information during the airworthiness inspection. For example, the FAA could ask the applicant to describe a particular construction task or technique used to fabricate the aircraft or provide information as to the type of materials. These discussions enable the FAA to evaluate the involvement of the applicant in the construction of the aircraft.

d. Prototype Aircraft Produced by an Amateur-Built Aircraft Kit Manufacturer. Prototype aircraft produced by a kit manufacturer to prove their design for sale as an amateur-built kit are not eligible for an experimental certificate for the purpose of operating an amateur-built aircraft.

(1) These prototype aircraft are not produced by persons "solely for their own education or recreation," and therefore are not eligible for an experimental airworthiness certificate under § 21.191(g).

(2) Following termination of their use in the business development activity, such prototype aircraft may be eligible for an experimental certificate for another purpose(s).

(3) In those instances where an aircraft is constructed at a manufacturing facility by employees or principals of that company, the applicant must demonstrate to the FAA that the aircraft was not produced to be used in the furtherance of the business activities of that company.

(4) Kit aircraft manufactured and assembled by a business, as either a prototype or for sale to other persons, are not considered amateur-built and do not meet the education or recreation requirements of § 21.191(g). Applications for such aircraft will not be accepted.

e. Records. If records are not available to support the eligibility statement, FAA Form 8130-12, the FAA will not be able to find compliance to the education, recreation, and major portion requirements of § 21.191(g).

456. Determination of Major Portion. The determination of major portion is made by evaluating the amount of work accomplished by the amateur builder(s) against the total amount of work necessary to complete the aircraft, excluding standard procured items. The major portion of the aircraft is defined as more than 50 percent of the fabrication and assembly tasks, commonly referred to as the "51-percent rule." An aircraft is not eligible for an experimental amateur-built certificate under § 21.191(g) if the major portion of the aircraft fabrication and assembly tasks are not completed by an amateur builder(s).

a. Use of Prior Policy. If an aircraft kit was evaluated and placed on the FAA List of Amateur-Built Aircraft Kits or if a non-evaluated aircraft kit was purchased from the manufacturer before September 30, 2009, the prior policy will be used. However, other factors, such as a major change to the kit by the manufacturer or a builder's use of commercial assistance, will preclude the use of prior policy. Figure 4-18 of this order depicts the use of the prior policy.

b. FAA Use of the Amateur-Built Aircraft Fabrication and Assembly Checklist. The Amateur-Built Aircraft Fabrication and Assembly Checklist is to be used by the FAA as an aid in determining compliance with the major portion requirement of § 21.191(g). A specific checklist has been developed for fixed-wing, helicopter, weight-shift control, powered parachute, and gyrocopter aircraft. Checklists for other types of aircraft may be developed. The checklists are available on the FAA website at http://www.faa.gov/aircraft/gen_av/ultralights/amateur_built/kits/. Instructions for completion are included on the form, and a job aid providing guidance on how to complete the checklist is also available on the same webpage. The Amateur-Built Aircraft Fabrication and Assembly Checklist must be used when—

(1) Performing FAA kit evaluations by the National Kit Evaluation Team (NKET) to determine if an aircraft fabricated and assembled from a kit may meet the major portion requirement of § 21.191(g).

(2) Commercial assistance was used by the amateur builder(s) during construction.

(3) The amateur builder made modifications to an aircraft kit included on the FAA List of Amateur-Built Aircraft Kits that potentially affects the major portion determination.

(4) The aircraft was built from prefabricated major components that are readily available from aircraft parts suppliers, other than those components listed in paragraph 457a(2) of this order.

(5) The aircraft was built using any salvaged articles from aircraft that have been type certificated. For additional details and limitations affecting this practice, refer to paragraphs 457b through d of this order.

(6) The aircraft was built from a kit that has not been evaluated or found eligible by the FAA.

(7) Providing guidance to a kit manufacturer to determine if a proposed amateur-built kit may meet the major portion requirement of § 21.191(g).

(8) There are questions that arise as to the determination of major portion.

Note. Copies of the Amateur-Built Aircraft Fabrication and Assembly Checklist and/or FAA Form 8000-38, as appropriate, for each kit on the FAA List of Amateur-Built Aircraft Kits are available on the FAA website, under Aircraft, General Aviation & Recreational Aircraft, Ultralights & Amateur Built Aircraft.

c. Providing Commercial and/or Educational Assistance. Amateur builders may contract for commercial assistance, but should notify the FAA if they intend to use commercial assistance. Amateur builders may also receive commercial educational assistance in the fabrication or assembly of specific articles, and the completion of tasks or processes involved in the construction of an aircraft. In some cases, this commercial assistance may be provided by kit manufacturers. The FAA may credit commercial assistance provided for educational purposes toward the major portion determination. However, this educational assistance cannot exceed a demonstration on how to perform the task.

(1) The amateur builder needs to submit a notarized FAA Form 8130-12, certifying the major portion was fabricated and assembled for educational or recreational purposes. The form specifies that an amateur builder identify if commercial assistance was used in the construction of the aircraft, and identify the source of the assistance. In addition, the amount of commercial assistance needs to be annotated on the Amateur-Built Aircraft Fabrication and Assembly Checklist for the specific make and model of aircraft. Evidence and records should be available to support these statements and provided to the FAA upon request.

(2) Any fabrication or assembly tasks contracted to another party (for hire) or provided by a commercial assistance center, including commercial assistance provided by a kit manufacturer, must not prevent the amateur builder(s) from meeting the major portion requirement. Fabrication knowledge is necessary for the FAA to issue the amateur builder a repairman certificate as the primary builder of the aircraft, to which the privileges of the certificate are applicable, as provided under § 65.104.

(3) The FAA may request to observe fabrication and assembly activities at any commercial assistance facility to determine whether the project can meet the major portion requirement of § 21.191(g).

457. Design and Construction. The FAA should be reasonable in its requests for design data from amateur builders, keeping in mind that in most instances only one aircraft is involved. Accordingly, the amateur builder(s) are not required to have the detailed design data, quality systems, and procedures that holders of TCs and PCs are required to have for the serial production of duplicate aircraft. Often, the amateur builder will only have the information provided with the kit. However, the amateur builder should be strongly encouraged to maintain

the documentation listed in paragraph 459e of this order to substantiate the fabrication and assembly process and show compliance with § 21.191(g).

a. Use of Commercially Produced Products and Articles. To meet the intent of § 21.191(g) and to be eligible for an experimental airworthiness certificate, satisfactory evidence must be presented to show that the aircraft was not assembled from completely prefabricated products, articles, or kits.

(1) The FAA recognizes that amateur builders cannot be expected to have fabricated every product and article that makes up the aircraft and that some products and articles will be acquired from commercial sources.

(2) Items such as engines, engine accessories, propellers, rotor blades, rotor hubs, tires, wheel and brake assemblies, instruments, and standard aircraft hardware, including pulleys, bell cranks, rod ends, bearings, bolts, rivets, hot air balloon burners, and fuel tanks, are acceptable and may be procured on the open market. The use of these products and articles are not counted against the amateur builder or kit manufacturer when the FAA determines whether the amateur-built aircraft has met the major portion requirement.

b. Use of Salvaged Articles from Type-Certificated Aircraft. The use of used or salvaged articles (for example, landing gear, horizontal stabilizer, and engine mount) from type-certificated aircraft is permitted, as long as they are in a condition for safe operation, however—

(1) When a project involves a major article, such as wings, fuselage, or tail assembly, contact AIR-100 for a determination of eligibility to § 21.191(g). AIR-100 will coordinate with Flight Standards Service, Aircraft Maintenance Division (AFS-300) personnel to resolve such issues.

(2) No credit will be given to the amateur builder(s) for any work on these salvaged articles when determining whether the amateur-built aircraft has met the major portion requirement. This would include any “rebuilding” or “restoring” activities to return these articles to an airworthy condition.

(3) All fabrication, installation, and assembly tasks accomplished with used or salvaged articles will be credited to the “Mfr Kit/Part/Component” column on the Amateur-Built Aircraft Fabrication and Assembly Checklist. However, assembly credit may be given in those cases where used or salvaged articles are mated to portions of the aircraft fabricated and assembled by the amateur builder.

(4) Amateur builders should be made aware that excessive use of prefabricated or salvaged articles when building their aircraft may render the aircraft ineligible for amateur-built status as defined in § 21.191(g). The use of a significantly complete airframe or combination of major articles such as wings and fuselage, tail plane assembly from a type-certificated aircraft, or a compilation of aircraft, would most likely render the aircraft ineligible for amateur-built status as defined in § 21.191(g).

c. Type-Certificated Aircraft. Alterations, rebuilding, and repairs to a type-certificated aircraft or article will be categorized as falling under part 43. The amateur builder will receive no credit for these actions toward fabrication or assembly.

> **Note:** The practice of performing alterations, repairs, and rebuilding on previously type-certificated aircraft for the purpose of obtaining an experimental amateur-built airworthiness certificate is not authorized under § 21.191(g). Such maintenance actions properly fall under part 43. Applications for airworthiness inspections on such aircraft will be denied. (Refer to paragraphs 457b through d of this order.)

(1) This policy has been in effect since 1952 under section 1.74-3 of the Civil Aeronautics Manual (CAM) 1, which specifically states that "structural components of other aircraft may be used [for amateur-built aircraft]; however, it is not intended that this provision be used to avoid obtaining approval of major alterations to aircraft previously certificated in another category."

(2) Use the normal STC process for modifications to these aircraft. They need to be kept under their existing maintenance programs to ensure continued airworthiness.

d. Use of Military Surplus, Spare Articles. The amateur builder will receive no credit toward fabrication or assembly for amateur-built aircraft projects where military surplus, spare articles are used. Their use may compromise the builder's ability to meet § 21.191(g) major portion requirements. As soon as it is known that a project involves the use of a complete airframe or combination of major articles from a military aircraft such as wings, fuselage, or tail assembly, contact AIR-100 for additional guidance. AIR-100 will coordinate with AFS-300 personnel to resolve such issues.

e. Use of Amateur-Built Kits.

(1) An aircraft fabricated and assembled from a kit may be eligible for amateur-built certification, provided the major portion of the aircraft has been fabricated and assembled by the amateur builder(s) solely for their own education or recreation. The applicant must have satisfactory evidence to support the major portion (greater than 50 percent) requirement and the education/recreation statement on FAA Form 8130-12. This evidence is typically in the form of a builder's log or equivalent, and includes photographs that document the multitude of steps included in each of the listed tasks in the Amateur-Built Aircraft Fabrication and Assembly Checklist. In addition, such documentation needs to include materials and techniques used, construction dates, locations, and detailed descriptions (refer to paragraph 459e of this order for a complete list). If the builder's log or equivalent does not provide sufficient detail, the FAA may not be able to find compliance with § 21.191(g).

(2) All fabrication or assembly tasks contracted to another party (that is, for compensation or hire) or provided by a commercial assistance center, when added to the manufacturer's total credits, must be less than the major portion of the construction project. An aircraft assembled from a kit composed entirely of completely finished prefabricated articles is not eligible for an experimental amateur-built airworthiness certificate.

(3) The major portion of a kit should be composed of raw stock, such as lengths of wood, tubing, and extrusions, which may have been cut to an approximate length. A certain quantity of prefabricated articles, such as heat-treated ribs, bulkheads, or complex articles made from sheet metal, fiberglass, composites, or polystyrene would also be acceptable, however—

(a) The kit must still allow an amateur builder to meet the major portion requirement, and the applicant must show to the satisfaction of the FAA that the completion of the aircraft was not simply an assembly operation.

(b) Caution is recommended for kits that provide large articles, such as complete fuselages and wing structures requiring minimal supplemental fabrication and assembly.

(4) Some kits may include aircraft-specific jigs, assembly tools and fixtures, templates, raw stock, or other means to simplify the fabrication and assembly process. If an amateur builder uses such items, the FAA will determine whether the amateur builder will still fabricate and assemble the major portion of the aircraft and advise the amateur builder accordingly.

(5) Amateur builders should obtain a copy of the completed FAA kit evaluation from their respective kit manufacturer if available. A list of FAA-evaluated kits is available on the FAA website under Aircraft, General Aviation & Recreational Aircraft, Ultralights & Amateur Built Aircraft. The completed evaluation will enable the amateur builder to determine how much fabrication and assembly remains to be completed by the amateur builder, and if any percentage of that work could be performed using commercial assistance.

458. FAA Evaluation of Amateur-Built Aircraft Kits.

a. General. The FAA performs kit evaluations to determine if an aircraft constructed from a prefabricated kit, following the manufacturer's instructions, may meet the major portion requirement of § 21.191(g). The FAA does not certify amateur-built aircraft kits or approve kit manufacturers. The outcome of these evaluations must not be construed as meaning the kit is FAA "certified," "certificated," or "approved," and kit manufacturers may not represent their kits as such.

(1) The placing of a kit on the FAA List of Amateur-Built Aircraft Kits is not a prerequisite for issuance of an amateur-built airworthiness certification.

(2) If an aircraft is fabricated and assembled from a kit that does not appear on the List of Amateur-Built Aircraft Kits, the FAA must make a major portion determination at the time of airworthiness certification.

b. Determination of Credit. The FAA has adopted a task-based approach when evaluating amateur-built kits. Other variables, like time needed to complete a task, are not to be used. For simple repetitive fabrication tasks (that is, riveting, measuring, cutting, trimming, sanding, drilling, gluing, and layup), there should be enough work for the amateur builder to learn proficiency in each of those tasks. However, this does not mean that all the credit for the tasks may then be given on the Amateur-Built Aircraft Fabrication and Assembly Checklist to the amateur builder. Rather, an incremental percentage, resulting in partial credit, may be accounted for on the checklist.

c. NKET. Kit evaluations are performed at the manufacturer's facility or its distributor, by the FAA's NKET. The team is composed of FAA personnel with experience in the evaluation of amateur-built aircraft. For additional information on the NKET, refer to FAA Order 8130.35, *Amateur-Built Aircraft National Kit Evaluation Team*.

d. Manufacturers Requesting a Kit Evaluation. Kit manufacturers desiring an FAA kit evaluation are directed to AC 20-27 for further information.

e. Canadian Applicants. A Canadian applicant with a design for an amateur-built aircraft kit may make an application to Transport Canada Civil Aviation (TCCA) for evaluation of the kit design. Upon receipt of the application, TCCA will review the design for compliance with the U.S. major portion requirements of § 21.191(g) and forward it to AIR-100. The process for FAA approval is contained in the IPA with TCCA.

459. Advising Applicants. Many individuals who want to build their own aircraft have little or no experience regarding aeronautical practices, workmanship, or design. An excellent source for advice in such matters is the Experimental Aircraft Association (EAA), located in Oshkosh, Wisconsin. Information on EAA programs and benefits may be obtained via the EAA website at http://www.eaa.org.

a. Contacting the FAA. Amateur builders who contact the FAA should be provided the information and guidance needed to ensure a thorough understanding of amateur-built regulations and requirements. The FAA should also explain the various points in the process when FAA involvement may be necessary before construction proceeds.

b. Providing FAA Forms for Registration and Certification. FAA MIDOs and FSDOs may furnish amateur builders with the following forms and ACs, or indicate their availability on the Internet:

(1) Aeronautical Center Form 8050-1;

(2) FAA Form 8130-6;

(3) FAA Form 8130-12;

(4) Aeronautical Center Form 8050-88; and

(5) AC 20-27.

c. In-Process Inspections. The FAA usually will not perform in-process inspections for determining airworthiness during the fabrication and assembly process. However, the FAA has to make a determination that the aircraft is in a condition for safe operation. Therefore, the amateur builder's documentation needs to indicate all in-process inspections. It is recommended that these inspections are done by knowledgeable persons, such as EAA technical counselors or certificated mechanics. All in-process inspection documentation needs to include dates and names of all person(s) involved.

d. FAA Pre-Cover Inspections. The FAA usually will not conduct pre-cover inspections during the fabrication and assembly process for the purpose of determining if the major portion requirement of § 21.191(g) has been met. As with in-process inspections, all pre-cover inspections need to be thoroughly documented to include dates and names of all person(s) involved. In no instance will the FAA perform any of the fabrication or construction work on an aircraft it is inspecting for issuance of an airworthiness certificate.

e. Proper Documentation. Amateur builder(s) need to be able to provide adequate and sufficient documentation to detail the construction and inspections of their aircraft.

(1) These records need to clearly indicate what was fabricated, assembled, or inspected, by whom, and the date the activity was performed.

(2) Documentation should clearly show who performed the task(s), describe when and where the tasks were performed, depict the methods of acceptable aeronautical construction and practices, and document the use of commercial and noncommercial assistance.

(3) The FAA must be provided with sufficient information to make a major portion determination. This documentation may include the following:

(a) The Amateur-Built Aircraft Fabrication and Assembly Checklist.

(b) Comprehensive builder's logs in any format, to include photographs of all the steps included in each of the listed tasks in the Amateur-Builder Aircraft Fabrication and Assembly Checklist, materials and techniques used in construction, as well as dates, locations, and detailed descriptions.

(c) Photographs/video/DVD.

(d) Drawings and engineering specifications.

(e) Kit manufacturer's data, when necessary.

(f) Relevant documentation (for example, plans) and references (for example, handbooks) used.

(g) Documentation concerning any commercial assistance used, including receipts.

(h) Documentation concerning any non-commercial assistance used.

(i) Article inventories and histories.

(j) Receipts and catalogs.

(k) Logbook entries.

f. Showing Compliance to § 91.319(b). The applicant should be advised that after the experimental amateur-built airworthiness certificate has been issued, they must show compliance to § 91.319(b). This is done by developing a flight test program that addresses the requirements, goals, and objectives of each test flight. The flight test program should be developed in accordance with AC 90-89, *Amateur-Built Aircraft and Ultralight Flight Testing Handbook*, or its equivalent in scope and detail. Flight test programs serve two purposes:

(1) They ensure the aircraft has been adequately tested and determined to be safe to fly within the aircraft's flight envelope.

(2) The flight test data is used to develop an accurate and complete aircraft flight manual and to establish emergency procedures.

> **Note:** The EAA Flight Advisor program has been established to assist applicants in developing flight test programs.

460. Certification Procedures. The procedures in these paragraphs provide guidance concerning amateur-built airworthiness certification and the issuance of FAA Form 8130-7, Special Airworthiness Certificate. FAA inspection of an amateur-built aircraft will be limited to a general airworthiness inspection when the aircraft is submitted for airworthiness certification. During this inspection, the FAA may not request extensive disassembly of the aircraft if the amateur builder can provide documented evidence of fabrication, assembly, and in-process inspections. The only time disassembly should be requested is when there is a lack of adequate documentation as described above, or if there is a suspected safety issue that would endanger the public.

a. Documentation in Support of Eligibility. It is necessary for the applicant to show and the FAA to find that the aircraft complies with the requirements of § 21.191(g). Common documentation in support of eligibility is typically in the form of a builder's log and substantiating photographs (refer to paragraph 459e of this order for a complete list).

b. Major Portion Determination. The FAA must always make a major portion determination when an amateur-built aircraft has been presented for certification.

c. Deviating from Kits and/or Using Commercial Assistance. When the FAA identifies an aircraft as meeting the major portion requirement, at the time of certification, the FAA will review the applicant's documentation. Deviations from the FAA-identified kit configuration or changes that would result in an increase in the amount of commercial assistance will require the FAA to determine (before fabrication and assembly, and using Amateur-Built Aircraft Fabrication and Assembly Checklist) that the kit still meets the major portion requirement.

d. FAA Responsibilities at the Time of Certification. At the time of airworthiness certification, the FAA must—

(1) Ensure the aircraft is complete and all documentation is sufficient, credible, and adequate. If the applicant cannot, or will not, provide a statement of eligibility (FAA Form 8130-12), or the documentation is inadequate to make a major portion

determination, the applicant should be advised that the aircraft cannot be certificated as an amateur-built aircraft and a denial letter will be issued.

(2) Examine records that the aircraft has been weighed in accordance with established weight and balance procedures to determine the aircraft's empty, gross, and most forward and aft CG location, including the weight and balance for the initial flight tests to help reduce stall, spin, and other control-related accidents.

(a) If the aircraft is self-designed, these limits would be determined by the amateur builder's calculations.

(b) If the aircraft is constructed from a kit or built from purchased plans, relevant existing documentation is used.

(c) If the amateur builder has made changes to a manufacturer's kit that affect the CG, the predetermined data must be recalculated based on the change(s).

(d) The completed weight and balance report, including load limits for flightcrew, oil, fuel, and baggage, should be available in the aircraft, along with the other applicable placards, listings, and markings required by § 91.9.

e. Certification Documentation. The FAA needs to obtain from the applicant the following FAA forms and documentation, and ensure they are properly executed:

(1) Aeronautical Center Form 8050-3 (a copy or online verification of registration).

(2) FAA Form 8130-6.

(3) A notarized FAA Form 8130-12 certifying that the major portion of the aircraft was fabricated and assembled by the applicant(s) for their own education or recreation purposes and that evidence exists to support this statement (refer to paragraph 459e of this order).

(4) Sufficient information to identify the aircraft, such as photographs or three-view drawings.

(5) As described in paragraph 459e of this order, sufficient, credible, and adequate documentation to show and the FAA to find compliance with the major portion requirement of § 21.191(g).

(6) As described in paragraph 459c and d of this order, documentation indicating all in-process and pre-cover inspections.

(7) A program letter identifying the aircraft, the purpose of the certificate, the area over which the operations are to be conducted, and the duration of the program. The program letter is based on the requirements of § 21.193(d).

(8) In addition, the applicant may be asked to submit additional information during the airworthiness inspection to assist the FAA in determining if the applicant is eligible for a repairman certificate under § 65.104.

> **Note:** It is recommended that the applicant provide a fuel flow test report. For airplanes with gravity systems (main and reserve supply), the flow rate should be 150 percent of the takeoff fuel consumption of the engine(s). For airplanes with a pump system, the flow rate should be at least 125 percent of the takeoff fuel consumption of the engine(s). The flow rates must be achieved under the most adverse conditions of aircraft attitude and fuel quantity. For rotorcraft, the fuel system for each engine should be shown to provide the engine with at least 100 percent of the fuel required under each operating and maneuvering condition expected.

f. FAA Records Review. Completion of FAA Form 8130-12 must not be used as the sole evidence of the applicant's compliance with the education, recreation, and major portion requirements of § 21.191(g). All relevant documentation must be reviewed. The FAA must—

(1) Review the documentation provided by the applicant to determine that the registration requirements of part 47 have been met, and ensure the aircraft is marked in accordance with part 45.

(2) Check with AFS-750 to determine if a denial letter exists for the particular aircraft. This may assist the FAA in determining aircraft eligibility.

(3) Review the aircraft records to determine whether any required maintenance or inspections have been accomplished.

(4) Ensure there is a signed and dated statement from the owner in the aircraft records, that the aircraft has had an inspection performed in accordance with part 43, appendix D, or other approved programs, and was found to be in a condition for safe operation. The inspection will help reduce errors made during construction of the aircraft. This statement will support the owner's inspection and airworthiness statement on block III of FAA Form 8130-6. AC 90-89, appendix 1, as revised, may be used.

> **Note:** There is no requirement for airframe and powerplant mechanics to sign off on amateur-built airworthiness inspections. The aircraft builder's signature on FAA Form 8130-6, block III, attests to the airworthiness of the amateur-built aircraft.

(5) Verify the entries on the Amateur-Built Aircraft Fabrication and Assembly Checklist to ensure the applicant has fabricated and assembled the major portion.

g. Aircraft Inspection. The FAA must arrange with the applicant to make the aircraft available for inspection to determine, at a minimum, the following:

(1) The ID plate meets the requirements of § 45.11(a), as applicable.

(2) The information on the ID plate matches the information on FAA Form 8130-6 and Aeronautical Center Form 8050-3. The pink copy of Aeronautical Center Form AC 8050-1 cannot be used for original certification.

(3) The aircraft nationality and registration marks are in accordance with part 45, subpart C, Nationality and Registration Marks.

(4) The flight control system, engine(s), propeller(s), pitot static system, and associated instruments operate properly.

(5) The cockpit instruments are appropriately marked, and needed placards are installed and placed for easy reference.

(6) System controls (for example, fuel selector(s) and electrical switches/breakers) are appropriately placed, clearly marked, provide easy access and operation, and function as intended by the amateur builder/owner.

(7) An ELT is installed, if required (§ 91.207).

(8) All explosive devices used in ballistic parachutes are clearly marked and identified. A "stay clear, danger" or similar placard must be installed on the exterior, near where the parachute exits the aircraft.

> **Note:** The only time extensive disassembly should be requested is if there is a safety concern. Safety concerns may be mitigated through detailed photographs or other documentation (refer to paragraph 459e of this order).

h. Certificate Issuance. Upon satisfactory completion of the airworthiness inspection and documentation review, the FAA will issue the special airworthiness certificate and the operating limitations for that aircraft. The operating limitations (refer to appendix C to this order) will be attached to FAA Form 8130-7. The FAA must review the operating limitations with the applicant to ensure a clear understanding of the limitations. The FAA will issue phase I and phase II operating limitations for an unlimited duration during the initial airworthiness certification. The FAA may elect to issue phase I and phase II limitations separately only when a documented safety issue exists. The operating limitations should be prescribed in two phases in the same document as follows:

(1) For the phase I limitations, the FAA must prescribe all operating limitations appropriate for the applicant to demonstrate compliance with § 91.319(b) in the assigned flight test area. This includes a limitation requiring the owner/operator to endorse the aircraft logbook and maintenance records with a statement certifying that the prescribed flight hours have been completed, and the aircraft has been shown to comply with § 91.319(b). The owner/operator may then operate in accordance with phase II.

(2) For the phase II limitations, the FAA must prescribe operating limitations, as appropriate, for the operation of an amateur-built aircraft for an unlimited duration.

(3) Under § 91.319(i), the FAA may prescribe any additional limitations in phase I or phase II deemed necessary in the interest of safety.

(4) If the aircraft meets the requirements for the certification requested, the FAA must—

(a) Make an aircraft record entry showing the following, or a similarly worded, statement: "I find this aircraft meets the requirements for a special airworthiness certificate for the purpose(s) of [identify purpose(s)], and have issued a special airworthiness certificate and operating limitations dated _____. The next inspection is due _____.
Signed: John Doe, Aviation Safety Inspector, NM48."

(b) Issue FAA Form 8130-7.

(c) Complete sections V and VIII of FAA Form 8130-6, in accordance with the instructions contained in chapter 8 of this order.

(d) Examine, review, and route the certification file, in accordance with the instructions contained in chapter 8 of this order.

(5) If the aircraft does not meet the requirements for the certification requested and the airworthiness certificate is denied, the FAA must—

(a) Write a letter to the applicant stating the reason(s) for denying the airworthiness certificate.

(b) Attach a copy of the denial letter to the original FAA Forms 8130-6 and 8130-12 and forward to AFS-750 to be made part of the aircraft record.

(c) Return to the applicant the documentation (photographs and three-view drawings) submitted for airworthiness certification.

(d) Advise the applicant that all documentation indicated in paragraph 460e of this order needs to be resubmitted at the time of reapplication.

i. Transfer of Airworthiness Certificates. An airworthiness certificate is transferred with the aircraft (§ 21.179), for example, if there is a change of ownership or transfer of registration. There is no FAA inspection required after transfer of an aircraft with its airworthiness certificate, unless it is determined that revised operating limitations are necessary. In this case, a new FAA Form 8130-7 must be issued to reflect the new date of the revised operating limitations. FAA Form 8130-6 will be required to be submitted by the applicant.

j. Expired or Foreign Airworthiness Certificates. In some cases, amateur-built aircraft are sold with an expired airworthiness certificate or foreign airworthiness certificate. In such cases, an applicant may request and receive a special airworthiness certificate for the purpose of operating amateur-built aircraft, only if the aircraft previously was certificated under, and continues to meet § 21.191(g). In this case, a new FAA Form 8130-7 would be issued along with new operating limitations, but without the eligibility to obtain a repairman certificate

for that aircraft. The new certificate should be issued only after the FAA has verified airworthiness by following the appropriate procedures in paragraph 402 (Certification Procedures) of this order.

k. Special Considerations. In addition to the above certification requirements, if an applicant's aircraft is an unevaluated foreign amateur-built kit, the FAA must perform a major portion determination using the Amateur-Built Aircraft Fabrication and Assembly Checklist. If compliance to the major portion requirement of § 21.191(g) cannot be ascertained, a special airworthiness certificate for the purpose of operating amateur-built aircraft must not be issued.

l. Operation of Canadian-Registered Amateur-Built Aircraft in the United States. Canadian-registered amateur-built aircraft are issued a special C of A with operating limitations set by TCCA. Operation of Canadian-registered amateur-built aircraft certified under the provisions of Canadian air regulations in the United States is permitted by the issuance of an SFA under § 91.715. This authorization must be obtained before operation in the United States is permitted. The authorization may be requested electronically via the FAA website at http://www.faa.gov. Additional guidance on the issuance of SFAs for Canadian-registered amateur-built aircraft may be found in paragraph 707 of this order.

m. Canadian Amateur-Built Aircraft. There are differences between Canadian and U.S. regulations and policies governing the issuance of airworthiness certificates concerning amateur-built aircraft. Aircraft built in Canada as amateur-built aircraft and brought into the United States are not necessarily eligible to receive an FAA experimental airworthiness certificate for the purpose of operating an amateur-built aircraft. However, applicants may be considered for eligibility if they meet the requirements of § 21.191(g). The application must include proof that the original builder did in fact fabricate and assemble the major portion of the aircraft.

461. Flight Test Areas.

a. General. Section 91.319(b) requires that an unproven aircraft be assigned to a flight test area. The assigned test area is prescribed in accordance with § 91.305. The FAA, when requested, should assist applicants in selecting areas that comply with § 91.305. The FAA is required to evaluate each application to determine that the flight test area does not exceed that which is reasonably required to accomplish the program.

b. Assigned Flight Test Area. Under §§ 91.319(b) and 91.305, all initial flight operations of experimental aircraft must be limited to the assigned flight test area until the aircraft is shown to be controllable throughout its normal range of speeds and all maneuvers to be executed, and has not displayed any hazardous operating characteristics or design features.

(1) In the case of the first flight of an aircraft from an airport surrounded by a densely populated area, but with at least one acceptable approach/departure route of flight, the FAA must ensure a route of flight is selected which subjects the fewest persons and least property to possible hazards. In addition, upon leaving such an airport, the aircraft should be required to operate from an outlying airport until its controllability and safety are established, after which the aircraft may return to its base and use the established corridor for subsequent operations.

The description of the area selected by the applicant and agreed to by the FAA must be made a part of the operating limitations; or

(2) In the case of an aircraft located at any airport surrounded by a densely populated area and lacking any acceptable approach/departure route of flight, the FAA may issue the airworthiness certificate. However, an operating limitation prohibiting operation at that airport must be included. The applicant must be advised to relocate the aircraft by other means to a suitable airport.

c. Assigned Flight Test Area. The procedures outlined under paragraph 446 of this order are applicable to amateur-built aircraft. Although the period of assignment is not established by regulation, the following times are suggested as guidelines when issuing original airworthiness certificates for amateur-built aircraft:

(1) Amateur-built aircraft issued original airworthiness certificates should be limited to operation within an assigned flight test area for a minimum of 25 hours when a type-certificated engine/propeller combination is installed. A minimum of 40 hours is required when a non-type-certificated engine, propeller, or engine/propeller combination is installed. Furthermore, if the type-certificated engine, propeller, or engine/propeller combination installed have been altered in a way that differs from an approved type design in a TCDS, a minimum of 40 hours will be required.

(2) Amateur-built gliders, balloons, dirigibles, and ultralight vehicles that meet the requirements of § 21.191(g), and for which original airworthiness certification is sought, should be limited to operation within an assigned flight test area for at least 10 hours of operation, including at least five takeoffs and landings.

(3) Following any major change, an amateur-built aircraft must be assigned to a flight test area for a minimum of 5 hours.

d. Operation Outside the Flight Test Area. The procedures outlined under paragraph 447 of this order are applicable for amateur-built aircraft. During operation outside the flight test area, the following placard must be displayed in the aircraft in full view of all occupants: "NOTE: PASSENGER WARNING—THIS AIRCRAFT IS AMATEUR-BUILT AND DOES NOT COMPLY WITH FEDERAL SAFETY REGULATIONS FOR STANDARD AIRCRAFT."

Note: This placard is not necessary for single-place aircraft.

462. Issuance of Experimental Amateur-Built Operating Limitations. Refer to appendix C to this order.

463. Reserved.

Section 10. Certification and Operation of Aircraft Under the Experimental Purpose of Exhibition or Air Racing

464. General. Under the provisions of § 21.191(d), exhibition aircraft are defined as aircraft that exhibit the aircraft's flight capabilities, performance, or unusual characteristics at air shows, fly-ins, and aviation events; for motion picture, television, and similar productions; and for the maintenance of exhibition flight proficiency, including (for persons exhibiting aircraft) flying to and from such events and productions. Under the provisions of § 21.191(e), air racing aircraft are defined as aircraft that participate in air races, including (for such participants) practicing for such air races and flying to and from racing events.

a. Exhibition. A certificate for experimental exhibition must only be issued when an aircraft is to be used for valid exhibition purposes. Included in those purposes are organized air shows, organized fly-in activities, organized exhibitions, youth education events, organized aerobatic competition, fly-ins or meets, and movie or television productions. The duration of an airworthiness certificate for exhibition may be unlimited.

b. Air Racing. A certificate for experimental air racing must only be issued when an aircraft is to be used for valid air racing purposes, including organized air races or sail plane competitive events. The duration of an airworthiness certificate for air racing may be unlimited.

c. Home Base Changes or Ownership Transfers. When an aircraft's home base is changed or there is a transfer of ownership, the owner/operator must notify the local FSDO having jurisdiction over the area in which the aircraft will be based within 30 days.

(1) The owner/operator must provide the FSDO with a copy of the FAA-accepted or approved inspection program (if required for the aircraft). The person responsible for scheduling the inspections must be identified in the program letter to the FSDO. The gaining FSDO should accept the previously accepted or approved program, but may review it to ensure the adequacy of the program.

(2) The gaining FSDO will not require the aircraft's special airworthiness certificate and operating limitations to be reissued, unless the aircraft is in Phase I test flight operations, FAA Headquarters determines that the current limitations require reissuance, or the owner requests reissuance or amendment.

(3) Upon transfer of ownership, the gaining FSDO will require the new owner to submit a new program letter to ensure the new owner is familiar with the limitations of the experimental exhibition aircraft.

(4) Copies of the aircraft registration, special airworthiness certificate, and operating limitations are on file with AFS-750, and the aircraft owner does not need to provide copies to the gaining FSDO.

465. Former Military Aircraft.

a. Background. Many of the aircraft presented for airworthiness certification for the purpose of exhibition or air racing are former military aircraft, both U.S. and non-U.S. The FAA acknowledges the significant role military aircraft have played in our aviation heritage and the importance of preserving their legacy for future generations. The exhibition of former military aircraft at aviation events for demonstration and display provides the public a rare view into our aviation past. Therefore, it is the policy of the FAA to permit the operation of former military aircraft for civilian use, consistent with the need to safeguard the general public.

> **Note:** Not all former military aircraft require experimental airworthiness certificates. Some models have a valid TC and are eligible for other airworthiness certificates.

b. Aircraft Familiarization. With former military aircraft, becoming familiar with the aircraft is particularly important given the variety of aircraft types, variants of those models, possible modifications, operational history, and possible long-term storage. The FAA representative should become familiar with the aircraft type and its operational history before initiating inspections.

(1) Identify the aircraft model and/or series, as well as the type of engine(s), propellers, and other systems installed, as appropriate. Obtain as much historical information as possible to include serial numbers, overhaul dates, airframe cycles, and engine time and cycles.

(2) Review accident and incident data for the aircraft type. Data can be retrieved from the NTSB, the FAA, and other international and military sources.

(3) Review available aircraft type club information.

(4) Review the ownership history of the aircraft, if applicable. This may provide information on how the aircraft was previously operated and maintained, which may have implications for the airworthiness inspection. The current ownership status may also affect the operation of the aircraft (for example, leasing agreements).

> **Note:** It is important to become familiar with the scope of the restoration, repairs, and maintenance conducted by or for the applicant. It is also helpful to become familiar with the availability of spare parts and any required ground equipment before conducting the formal records inspection.

c. Limitations. To ensure the safe operation of these aircraft and minimize adverse environmental impact, the FAA has established operating limitations. Operating limitations developed jointly by AIR and AFS are contained in appendix C to this order.

d. Maintenance and Inspections. The ability of civilian operators to maintain and operate these aircraft depends on their background and experience, training and facilities, availability of technical manuals and design information, and the complexity of the aircraft involved.

e. Environmental Impact. Applicants for certification of experimental exhibition aircraft must be advised that these aircraft were designed and manufactured without the acoustical treatment provided for current commercial and business aircraft. They also must be advised of industry-developed procedures and guidelines designed to minimize the impact such aircraft impose at airports and in the surrounding communities. Aircraft operators must accept the responsibility for operating their aircraft in a manner that reduces the environmental impact to the lowest practicable level consistent with safe operation.

466. Brokering. Section 21.191(d) was not intended to allow for the brokering or marketing of experimental aircraft. This includes individuals who manufacture, import, or assemble aircraft, and then apply for and receive experimental exhibition airworthiness certificates so they can sell the aircraft to buyers. Section 21.191(d) *only* provides for the exhibition of an aircraft's flight capabilities, performance, or unusual characteristics at air shows and for motion picture, television, and similar productions. Persons processing an experimental certificate application for exhibition must ensure it is for the purposes specified under § 21.191(d), and is from the registered owners who will exhibit the aircraft for those purposes. Applicants also must provide the applicable information specified in § 21.193.

467. Ejection Seats. Pilots operating aircraft and passengers of aircraft equipped with an ejection propellant system, whether armed or not armed, must satisfactorily complete an FAA-approved ejection seat training program. Questions concerning specific aircraft and ejection seat training approvals will be referred to AFS-800.

468. Special Initial Certification Requirements. The following provides information and guidance concerning the initial airworthiness certification for experimental aircraft for the purpose of exhibition or air racing. These steps are in the normal order of occurrence for the certification of these aircraft.

a. Demilitarization of Former Military Aircraft. For demilitarization of former military aircraft, refer to paragraph 212b of this order.

b. Records Inspection. In addition to the records inspection requirements of paragraph 402b of this order, the FAA must—

(1) Obtain from the applicant a program letter in accordance with § 21.193, setting forth the purpose(s) for which the aircraft will be used. The program letter must be specific as to the intended use under the purpose requested and must include the information as required by § 21.193. Refer to appendix B to this order for additional information.

(2) Ensure the applicant has written in or translated into the English language all of the necessary maintenance, inspection, operating, and flight manuals required to safely operate the aircraft.

(3) Verify maintenance records reflect records of inspections, overhauls, repairs, time-in-service on articles and engines, etc., and that all records are current. The FAA will sign the inspection program noting its approval/acceptance of that program. An entry in the aircraft logbook is not required.

(4) Verify maintenance and modification records to include records for flight control balancing, fabricated parts, and supporting engineering documentation, if required.

(5) For airplanes with a gross takeoff weight of more than 12,500 pounds, turbojet airplanes, turbopropeller-powered multiengine airplanes, and turbine-powered rotorcraft, verify the applicant has an FAA-approved inspection program or a current inspection program recommended by the manufacturer that meets the requirements of § 91.409. However, the owner or operator of a turbine-powered rotorcraft may elect to use the inspection provisions of § 91.409(a), (b), (c), or (d) instead of an inspection option of § 91.409(f).

> **Note:** A special airworthiness certificate will not be issued for these aircraft without an FAA-approved inspection program, if applicable.

(6) Verify the appropriately rated FAA-certificated mechanic has made an entry in the aircraft records documenting the applicable inspections as referenced in paragraph 468c of this order for all aircraft (including new aircraft) within 60 days before submitting FAA Form 8130-6.

(7) Review the applicant's weight and balance data for accuracy and currency for the aircraft submitted.

(8) Address the following special considerations, if applicable:

(a) Examine any related documents from U.S. Customs and Border Protection and the ATF to determine if the aircraft was imported as an aircraft and to determine the configuration at time of import. If the aircraft was not imported as an aircraft or if the configuration is not stated on Form ATF-6, the aircraft is not eligible for an airworthiness certificate.

(b) Review the inspection program. Discuss the applicable standard for the aircraft with the applicant. Proper ground support equipment, specialized tooling for maintenance, airframe fatigue life program compliance, and engine thrust measurement process may also be needed. Ensure the program addresses aging of the aircraft and its components. Refer to § 91.415 and AC 43-209, *Recommended Inspection Procedures for Former Military Aircraft* (current edition), for additional information on aircraft inspection programs.

> **Note:** Items that have specified limits must be inspected to ensure the equivalent level of safety still renders the product in a serviceable condition for safe operation.

(c) Verify spare part records.

(d) Verify installed avionics records.

(e) Verify minimum equipment for flight requirements.

(f) Verify status of ejection seat system to include type, original equipment manufacturer support, maintenance, and component life limits.

(g) Verify any parachute(s) are in compliance with the parachute requirements in § 91.307 and ensure it is rated for the ejection seat being used.

(h) Verify the drag chute installation records reflect installation per applicable military guidance.

(i) Ensure external stores were approved by the military service where the aircraft was operated. Ensure external stores are mounted in a manner that will prevent in-flight jettison and the cockpit jettison controls are disabled.

(j) Determine that the aircraft has been flight tested, if required. If it has not been flight tested, consider requiring all flight tests and flight test protocols follow the intent and scope of applicable military functionality test procedures. Flight test duration should be a minimum of 10 hours, but may be adjusted as needed to accomplish functionality and reliability testing and to verify the aircraft can be operated safely. The flight test must be recorded in the aircraft records and certify that the requirements of § 91.319(b) have been met. Flight test time is included as "time-in-service," as defined by part 1.

(k) Determine the aircraft complies with all applicable ADs. If the experimental aircraft has a type-certificated product or article installed, it should comply with any applicable ADs for that product or article.

(l) Establish that all required documentation and records have been provided for the aircraft.

1 Ensure the operator has the latest flight manual, equipment list, and maintenance records and manuals as required by certain airworthiness parts of 14 CFR.

2 Ensure the existence of a complete set of applicable military manuals (that is, U.S. Air Force, Naval Air Systems Command (NAVAIR), or North Atlantic Treaty Organization (NATO)), inspection and maintenance manuals for the aircraft, and engine manuals.

3 Ensure the operator has applicable military technical orders to address known issues related to airworthiness, maintenance, and servicing.

4 Review the aircraft inspection program to verify compliance with the latest version of applicable manuals or equivalent documents.

c. Aircraft Inspection. The FAA will perform an inspection to the extent necessary to ensure a prior inspection of the aircraft and aircraft systems has been performed in accordance with the records inspection requirements as identified in paragraph 402b of this order. The FAA will verify instruments, instrument markings, and placards are as required by 14 CFR and are identified in the English language. In addition, the FAA will verify all measurements are converted to standard U.S. units of measure for those instruments necessary for operation in the U.S. air traffic system (for example, airspeed in knots, altimeters in feet, and distance measuring equipment in nautical miles).

Note: Depending on the intended operation, the applicable reference would be § 91.205(b) for VFR (day); § 91.205(c) for VFR (night); and § 91.205(d) for instrument flight rules (IFR). Operators should be alerted that there are specific requirements under part 91 for maintenance and inspection of the various aircraft instruments, and that those requirements are applicable for these aircraft if the instruments are installed, for example, §§ 91.173 through 91.187, 91.215, 91.217, 91.219, 91.411, 91.413, etc.

469. Certification Procedures.

a. Once it has been determined that the aircraft meets the requirements for the special airworthiness certification requested, the FAA must—

(1) Make an aircraft record entry showing the following, or a similarly worded, statement: "I find this aircraft meets the requirements for a special airworthiness certificate for the purpose(s) of [identify purpose(s)], and have issued a special airworthiness certificate and operating limitations dated _____. The next inspection is due _____. Signed: John Doe, Aviation Safety Inspector, NM48."

(2) Issue the special airworthiness certificate and appropriate operating limitations in accordance with this order.

b. Denial. If the aircraft does not meet the certification requirements and the special airworthiness certificate is denied, the FAA will provide a letter to the applicant stating the reasons for denial and, if feasible, identify which steps may be accomplished to meet the certification requirements. Should this occur, a copy of the denial letter will be attached to FAA Form 8130-6 and forwarded to AFS-750, and made a part of the aircraft's record.

c. Phases. For the purpose of this section—

(1) Phase I means the initial flight testing period for a newly assembled aircraft, not a newly manufactured or newly built aircraft. Newly manufactured or newly built aircraft must complete initial flight testing comparable to experimental amateur-built aircraft.

(2) Phase II means a period in which an aircraft has completed Phase I testing and has not been altered from the tested configuration or flown outside the flight tested envelope. Modifications that invalidate Phase II limitations are—

(a) Structural modifications;

(b) Aerodynamic modifications, including externally mounted equipment except as permitted in operating limitation No. 16 (refer to appendix C to this order); and

(c) Change of engine make, model, or power rating (thrust or horsepower).

Note 1: The owner/operator may return the aircraft to Phase I to flight test specific items as required by these limitations without invalidating the issued limitations; however, major modifications such as those listed above may require new operating limitations in accordance with operating limitation No. 35 (refer to appendix C to this order).

Note 2: The FAA may elect to process the aircraft on a one-time certification basis, for example, via the issuance of only one special airworthiness certificate. In these instances, when issuing the special airworthiness certificate for the purpose(s) of exhibition and/or air racing, the operating limitations will be prescribed in two phases in the same document.

470. Issuance of Experimental Exhibition or Air Racing Operating Limitations. Refer to appendix C to this order.

471.-472. Reserved.

Section 11. Certification and Operation of Aircraft Under the Experimental Purpose(s) of Research and Development, Showing Compliance With Regulations, Crew Training, Market Surveys, and Operating Kit-Built Aircraft

473. General. Under the provisions of § 21.191(a), R&D aircraft are defined as aircraft that test new design concepts, aircraft equipment, installations, operating techniques, or new uses for aircraft. Under the provisions of § 21.191(b), show compliance aircraft are defined as aircraft that conduct flight tests and other operations to show compliance with the regulations. This includes flights to show compliance for the issuance of TCs and STCs, major design changes, and function and reliability requirements. Under the provisions of § 21.191(c), crew training aircraft are defined as aircraft involved in the training of the applicant's flightcrews. Under the provisions of § 21.191(f), market survey aircraft are defined as aircraft that are used for conducting market surveys, sales demonstrations, and customer crew training as provided for in § 21.195. Under the provisions of § 21.191(h), operating kit-built aircraft is defined as operation of a PCA that meets the criteria of § 21.24(a)(1) that was assembled by a person from a kit manufactured by the holder of a PC for that kit, without the supervision and quality system of the PC holder under § 21.184(a). Unless further defined in paragraphs 473a through e of this order, the duration of an experimental certificate for R&D, showing compliance with regulations, crew training, or market surveys are effective for 1 year or less after the date of issuance. The duration of an experimental certificate for operating primary kit-built aircraft is unlimited.

a. Research and Development. Any aircraft would be eligible for an experimental certificate under this purpose. Although the operations may eventually lead to a TC, they may be conducted by the applicant only as a matter of research or to determine whether an idea warrants further development. In addition to the operations specified in § 21.191(a), the operation of a chase plane, a tanker used for in-flight icing tests, or other aircraft not otherwise eligible for a standard or an experimental certificate (R&D), but necessary for use in direct connection with the R&D project, is considered to be within the scope of this purpose. Aircraft currently certificated in the experimental category for the purposes of exhibition or air racing also may be

eligible for a special airworthiness certificate for the experimental purpose of R&D. Also, former military aircraft are often used in R&D projects, and it is appropriate to use the guidance in this order when performing R&D certification of former military aircraft.

b. Showing Compliance With Regulations. This purpose would be considered valid when the applicant for a TC or an aircraft modifier has revised the TC design data or has applied for an STC or field approval. The purpose is to show compliance to the CFR after the applicant has completed testing under R&D, if applicable, and is ready for flight testing by the FAA. In addition to the operations specified in § 21.191(b), the operation of a chase plane or other aircraft not otherwise eligible for a standard or experimental certificate, but necessary for use in direct connection with a type certification project, is considered to be within the scope of this purpose.

c. Crew Training. Under § 21.191(c), this purpose is limited to only the applicant's flightcrews. This normally includes a manufacturer's employees who need to be trained in experimental aircraft. The manufacturer's flightcrews operate aircraft being flight-tested in type certification programs or for production flight testing. This may also include a company/applicant that operates an experimental former military aircraft and needs to train its pilots/employees to obtain an appropriate type rating or authorization to serve as pilot in command in the aircraft. Except for a manufacturer's first of an aircraft model, do not issue a special airworthiness certificate for crew training when an equivalent aircraft with a standard airworthiness certificate is available.

d. Market Surveys. A U.S. manufacturer of aircraft or engines and a person that alters a *type-certificated* aircraft may apply for a special airworthiness certificate in the experimental category for the purpose of market surveys, sales demonstrations, and customer crew training under § 21.195. The FAA representative must ensure the provisions of § 21.195 are met before issuing the experimental certificate. The applicant must provide the FAA representative with the estimated time or number of flights required for the market survey operation as well as the area or itinerary over which the operations are to be conducted under § 21.193(d)(2) and (3). The duration of the certificate should be limited to the time needed for the described operations effective for 1 year or less after the date of issuance. A longer duration may be provided for a PC holder who has an approved procedure for experimental operations. The MIDO manager has the option to extend the duration for other situations.

e. Operating Kit-Built Aircraft. If a PCA kit is assembled without the benefit of the PC holder's supervision, the aircraft may qualify for an experimental certificate in accordance with § 21.191(h). The purchaser or owner of the kit is not required to assemble or fabricate any specific portion of the kit; assistance for some or all of the work may be obtained from other sources, such as the PC holder or some other fabricator. The kit, however, must have been manufactured by a PC holder.

474. Temporarily Suspending an Airworthiness Certificate. This policy allows for a standard, restricted, or LSA airworthiness certificate to be held in suspension. This procedure may be used for short-term projects such as performing required flight testing for an STC project or an LSA manufacturer flight testing major repairs or alterations. Do not use this procedure if the applicant cannot ensure the aircraft will remain in compliance with all of the

maintenance and preventive maintenance programs required under the aircraft's current airworthiness certificate.

a. When an applicant for a change in type design alters an aircraft in accordance with a proposed type design change, a flight test may be required to demonstrate compliance with airworthiness regulations. A flight test also may be required if an applicant wishes to conduct R&D testing of an altered aircraft. However, the altered aircraft is no longer in compliance with its TC; therefore, the aircraft does not have an effective airworthiness certificate under which to conduct the flight test. In these cases, the FAA may issue a special airworthiness certificate in the experimental category for R&D flight testing or to show compliance with airworthiness regulations.

b. When an LSA manufacturer incorporates a design change into an existing make/model special LSA for major repair or alteration purposes, any required flight tests must be conducted as a light-sport prototype aircraft under an experimental R&D certificate (§ 21.191(a)) to ensure there are no adverse flight characteristics (§ 91.319(b)). A new production aircraft (that is, without special LSA airworthiness certificate issued) of the same make/model may be used for this purpose. An existing special LSA with an airworthiness certificate of the same make/model may also be used for this purpose.

c. The applicant must comply with the requirements of § 21.193 and submit a completed FAA Form 8130–6, Application for Airworthiness Certificate, to request a special airworthiness certificate for R&D testing or to show compliance with regulations. Process the application in the usual manner with the following differences:

(1) The applicant must surrender the aircraft's airworthiness certificate to the ASI or designee so it can be held in suspension by the responsible MIDO or FSDO. If testing will be completed in less time than required to send the airworthiness certificate to the MIDO/FSDO, the designee may hold the airworthiness certificate in suspense. The owner or applicant does not retain the suspended airworthiness certificate.

(2) If the applicant's need for the special airworthiness certificate for R&D testing or to show compliance with regulations exceeds 30 days, the ASI or designee evaluates the need to ensure it is valid, and reevaluates the need every 30 days thereafter until the process is complete. If the need is valid, no change is required. If the aircraft meets the maintenance and inspection requirements of the suspended airworthiness certificate, no change is required. If the need is not valid or inspection requirements are not met, the ASI or designee will advise the applicant that the suspended airworthiness certificate is now surrendered, and upon completion of testing, the applicant must apply for a new airworthiness certificate. The total time duration of the special airworthiness certificate for R&D testing or to show compliance with regulations will not exceed the requirements of § 21.181.

(3) When issuing the special airworthiness certificate for R&D testing or to show compliance with regulations, record the following entries in the aircraft maintenance records (logbook). These entries streamline the reinstatement of the airworthiness certificate.

(a) Explain the reason for issuance of the special airworthiness certificate (for example, for performing flight testing to evaluate a proposed R&D design change or to show compliance with airworthiness regulations).

(b) Provide all information that expedites reinstatement of the standard or restricted airworthiness certificate (for example, type of modification and/or alteration performed).

g. After flight testing has been completed and the applicant requests the return of the suspended certificate, perform the following:

(1) Require only the documentation and/or inspections necessary to confirm what has occurred since the airworthiness certificate was suspended and that the aircraft conforms to its type design, or in the case of an LSA, the manufacturer's approved design. These requirements are sufficient unless the ASI can justify and document the need for further inspection.

(2) Make a signed and dated entry in the aircraft maintenance records (logbook) fully explaining what has occurred and include the following statements as applicable:

(a) Show compliance flight tests. "I find this aircraft meets the requirements for the reinstatement of the current [standard or restricted] airworthiness certificate and the inspection was performed based on all installations and modifications related to [insert STC number, amended TC number, or other form of project description], performed from [insert date the modification(s) was first installed] to [insert current date]."

(b) R&D flight tests. "I find this aircraft meets the requirements for the reinstatement of the current [standard or restricted] airworthiness certificate, following completion of R&D flight testing, based on an inspection confirming reconfiguration of the aircraft to the approved type design."

(c) LSA flight tests. "I find this aircraft meets the requirements for the reinstatement of the current special LSA airworthiness certificate, following completion of R&D flight testing, based on an inspection confirming reconfiguration of the aircraft to the manufacturer's approved design."

(d) All flight tests. "This certification process does not replace or change the dates or times of scheduled inspection requirements (for example, annual or 100-hour inspections). The next inspection is due [insert date or time as applicable]."

(3) Enter the following statement on FAA Form 8130-6, FAA Coding block: "Do Not Code." This ensures AFS-750 does not change the aircraft airworthiness status in the computer data. This is FAA Form 8130–6 submitted for the issuance of the special airworthiness certificate for R&D testing or to show compliance with regulations.

475. PC Holder and Modifier Experimental Operating Procedure. PC holders and modifiers may submit to their local managing office for FAA approval a procedure describing the operation of experimental aircraft. After it is approved, the procedure may be listed in the operating limitations as indicated in appendix C to this order. The principal inspector (PI) may exclude certain aircraft from the privileges of either all or part of this procedure, for example, the

first of a model or a nonproduction R&D aircraft. The procedure should include at least the following elements:

a. A description of the test area that will be used to show compliance with § 91.319(b). This area must be described by a radius, coordinates, and/or landmarks, and be over open water or sparsely populated areas having light air traffic. The size of the area must be that required to safely conduct the anticipated maneuvers and tests. Multiple-purpose certificates may require individually prescribed geographical areas.

b. A daily flight log that must be maintained by the pilot that shows compliance with § 91.319(b) and inspection of the aircraft before release for flights in the expanded test area. The flight log will be maintained for the duration of the certificate for review by the PI.

c. A description of the method used to conduct and record necessary flights outside the test area, and for maintaining these records. This procedure will remain active for the duration of the certificate, and will eliminate the need for the PC holder to obtain approval for each flight.

d. A description of the method used to define the persons who may be carried during these operations. The following must be incorporated into this procedure:

(1) A requirement that the pilot in command advise each passenger of the experimental nature of the aircraft, in accordance with § 91.319(d).

(2) A method of recording persons carried on each flight. These records must be maintained for the duration of the certificate for review by the PI.

(3) A provision that no persons may be carried in the aircraft during flight unless that person is required for the purpose of the flight. Persons other than flightcrew members may be carried when all of the following conditions are met:

(a) The aircraft is of the same basic model that previously has shown compliance with §§ 91.319(b) and 21.195.

(b) Flight tests do not include intentional maneuvers involving abrupt changes in the aircraft's attitude, abnormal attitudes, or abnormal acceleration/deceleration not necessary for normal flight.

(c) The procedures specifically cover the types of flying to be permitted while carrying passengers other than flightcrew members.

e. A description of the method used to determine that the aircraft is in a condition appropriate for the purpose intended when changing from one purpose to another (multiple-purpose certificates), and to document the results of this determination in a log or daily flight sheet (for example, changing from R&D to market survey).

f. Any other condition deemed necessary in the interest of safety by the PI.

g. A requirement that a copy of this procedure must be carried in the aircraft while operating under the privileges of this procedure. A copy of this procedure also may be included or directly referenced in the PC holder's quality manual for the convenience of the manufacturer and the PI. Any enforcement deemed appropriate would be under § 91.319 and not part 21, subpart F, Production Under Type Certificate Only, or subpart G, Production Certificates.

476. Issuance of Experimental Research and Development, Showing Compliance with Regulations, Crew Training, Market Surveys, and Operating Kit-Built Aircraft Operating Limitations. Refer to appendix C to this order.

477. Reserved.

Section 12. Provisional Airworthiness Certification

478. General. Under the provisions of part 21, subpart I, two classes of provisional airworthiness certificates may be issued. Class I certificates may be issued for all categories, whereas Class II certificates are issued for transport category aircraft only. In each case, a corresponding provisional TC or provisional amendment to the TC must be in effect to be eligible for a corresponding provisional airworthiness certificate.

479. Eligibility. Only a U.S. aircraft manufacturer, aircraft engine manufacturer, or certificated air carrier may apply for provisional airworthiness certificates as provided in part 21, subpart I. Because the aircraft normally is one that is being used in the type certification process, the FAA should be familiar with its progress and conformity status. Therefore, upon determination that the application and attachments are satisfactory, inspection of the aircraft is necessary only to the extent required to determine that it is in a condition for safe operation when operated within its operating limitations.

480. Special Purpose Operations. The special purpose operations for which provisionally certificated aircraft may be operated are contained in § 91.317. These operations include—

a. Training flightcrew members, including simulated air carrier operations;

b. Demonstration flights by the manufacturer for prospective purchasers;

c. Market surveys by the manufacturer;

d. Flight checking of instruments, accessories, and equipment that does not affect the basic airworthiness of the aircraft; and

e. Service testing of aircraft.

481. Statement of Conformity. A properly completed FAA Form 8130-9 containing the information required by §§ 21.221 and 21.223 may be used by the manufacturer as its conformity statement and should be attached to FAA Form 8130-6.

482. Certification Procedures. The FAA should follow the appropriate procedures outlined in paragraph 402 of this order.

483. Special Airworthiness Certificate, FAA Form 8130-7. Upon determination that the aircraft conforms to its provisional TC or provisional amendment to a TC and that it is in a condition for safe operation, the FAA should issue FAA Form 8130-7. The issuance of a provisional airworthiness certificate, corresponding to a provisional amendment to a TC in accordance with § 21.225, is considered to be an original issuance in the provisional category.

484. Operating Limitations. Operating limitations established for the issuance of a provisional TC or provisional amendment to a TC are considered to be a part of the provisional airworthiness certificate issued to an individual aircraft. The FAA must ensure these operating limitations are available in the aircraft in compliance with § 91.9. Limitations and restrictions which are not included in placards or the provisional flight manual must be issued in accordance with appendix C to this order.

485.-486. Reserved.

Section 13. Special Flight Permits

487. General.

a. Special flight permits are issued for aircraft that currently may not meet applicable airworthiness requirements, but are capable of safe flight. A special flight permit is a special airworthiness certificate. A special flight permit is not an authorization to deviate from the requirements of part 91.

(1) Section 21.197(a) applies to aircraft that may not meet applicable airworthiness requirements and that will be operated for a purpose specified in § 21.197(a)(1) through (5).

(2) Section 21.197(b) applies to those aircraft that meet all of the applicable airworthiness requirements except those that cannot be met because of an overweight condition.

(3) Section 21.197(c) applies only to holders of operating certificates issued under part 121 or part 135 for aircraft operated and maintained under a continuous airworthiness maintenance program. The instructions for issuance of a special flight permit with a continuing authorization are contained in FAA Order 8900.1, volume 4, chapter 13, section 1.

b. Forms 8130-6 and 8130-7 are used for the administration of §§ 21.197 and 21.199. The instructions for completion of these forms are contained in chapter 8 of this order, except as noted in this section.

c. Special flight permits for purposes other than production flight testing and customer demonstration flights will be issued by the FSDO/MIDO/International Field Office (IFO) geographically responsible for the area in which the flight is to originate. If the applicant's aircraft is outside the jurisdiction of the FSDO/MIDO/IFO receiving the request, the applicant should be referred to the appropriate office. This paragraph does not apply to part 121 or part 135 certificate holders.

Note: ODA holders and designees may issue special flight permits if it is an authorized function. Refer to FAA Order 8100.15 (ODA) and FAA Order 8100.8, *Designee Management Handbook,* for further clarification and guidance.

d. Special flight permits issued to part 121 or part 135 certificate holders who do not have a continuous authorization normally will be issued by their certificate holding district office (CHDO). However, with the CHDO's concurrence, these special flight permits may be issued by the office having geographical responsibility.

e. Under special conditions, special flight permits may be issued to part 145 repair facilities for the purpose of delivering aircraft from international locations to the United States. In this instance, the special flight permit will be issued by the CHDO having jurisdiction over the repair facility under the following conditions:

(1) It is a U.S.-registered aircraft that currently does not meet the conditions of its standard airworthiness certificate, due to the installation of nonstandard auxiliary fuel systems. Auxiliary fuel system installations must be accomplished by an FAA-certificated repair facility which is specifically airframe-rated for the desired installation.

(2) Procedures relating to the application and issuance of special flight permits, the installation of auxiliary fuel systems, and any conditions and limitations for flight must be incorporated into the repair facility's operations specifications.

Note: The FAA office issuing the special flight permit, under these special conditions, must assure compliance with all other guidelines outlined within this order. The CHDO may request the IFO geographically responsible for the area in which the flight is to originate to inspect the aircraft before flight using an ASI or qualified designee.

f. The validity of the special flight permit is not affected by the operation of the aircraft outside the border of the United States as long as it is operated for the intended purpose under § 21.197 and within the timeframe specified on the permit. The special flight permit does not authorize flight over countries other than the United States without permission of that country. If such operation is contemplated, the effective date of the permit is contingent on compliance with section D(2) of the permit and it becomes the responsibility of the owner/operator to obtain such permission.

g. In accordance with § 39.23, some operations specifications may give an operator the authority including the provision to fly an aircraft to a repair station to perform work required by an AD. If the operator does not have this authority, the local FSDO may issue a special flight permit in accordance with § 21.197(a) unless the AD states otherwise.

(1) In cases where the special flight permit paragraph is intentionally missing from an AD, § 39.23 authorizes the issuance of a special flight permit, if the AD was published after August 21, 2002 (the effective date of § 39.23). In all new ADs, the special flight permit is authorized by § 39.23, and not the AD, unless the engineer determines that the aircraft cannot be

moved safely, and therefore the AD will include a paragraph that does not allow any special flight permit or has certain restrictions.

(2) The ASI also has the authority under § 39.23 to deny a special flight permit request for safety reasons as well as adding operating restrictions to the proposed route of flight. An example of a justified denial would be a special flight permit request for operation over large bodies of water or mountainous terrain with a single-engine aircraft that has an AD applicable to the engine or propeller.

h. If the product is not an aircraft, and the AD does not provide for the product's operation during a ferry flight, in accordance with § 39.7 the product may not be operated during such a flight. If the aircraft on which the product is installed can be operated safely without operating the product, a special flight permit could be issued in accordance with § 21.197(a) with a limitation that the product be rendered inoperative for flight.

488. Purposes. Section 21.197 prescribes the general purposes for which a special flight permit may be issued. The following specific operations also are considered to be within the scope of the general provisions:

a. Any flight of a U.S.-registered aircraft covered by § 21.197, if the aircraft is capable of safe flight, even though a TC has not been issued.

b. The delivery of an aircraft of either U.S. or non-U.S. manufacture to the base of the purchaser or to a storage point in the United States.

c. The operation of non-air carrier four-engine aircraft with one inoperative engine. The provisions of § 91.611 should be used as a guide.

d. Flying an aircraft whose annual inspection has expired to a base where an annual inspection can be accomplished.

e. Flying an amateur-built aircraft whose condition inspection has expired to a base where the condition inspection can be accomplished.

f. Production flight testing of LSA in accordance with § 21.190(c)(7).

g. Flying an aircraft to a base where repairs are to be performed. This may include local flights for maintenance checks before conducting a ferry flight.

489. Application and Issuance (General).

a. When the application for a special flight permit is found in compliance with all requirements, the FAA should issue FAA Form 8130-7, with operating limitations deemed necessary for safe operation. The operating limitations must be enumerated on a separate sheet, identified by the aircraft registration and serial number, dated, and signed. The applicant should be advised that FAA Form 8130-7 and attached operating limitations must be displayed in the aircraft in accordance § 91.203(b).

b. The FAA may assist the applicant by completing FAA Form 8130-6 based on information furnished by telephone, letter, or fax. The name of the applicant should be entered in the space provided for the applicant's signature. A notation as to how the information was received should be entered above the name, for example, "Received by email dated _____." If the information provided is adequate and all requirements for issuance are satisfied, the ASI may email or fax a special flight permit with appropriate limitations (except § 21.197(b) for overweight operations). These limitations will include inspection requirements as deemed necessary. The special flight permit and prescribed operating limitations must be displayed in the aircraft in accordance with § 91.203(b) before conducting the flight.

> **Note:** All designees are required to physically perform the inspection necessary to ensure the aircraft is eligible for the special flight permit.

c. If a district office processes numerous applications for a special flight permit, a standard format may be filed with the local office.

d. When FAA Form 8130-6 has been completed, the ASI will complete the special flight permit to include any additional operating limitations that may be required. The completed and signed permit may then be transmitted electronically. The copy of the permit that is displayed in the aircraft at the point of departure will be considered the original permit.

e. A copy of each certification document should be retained in the files of the issuing office. Only copies required per paragraph 807a(1) of this order, as applicable, are to be forwarded to AFS-750.

490. Aircraft Inspections.

a. It is the responsibility of the FAA to determine which inspections or tests are necessary to ensure the aircraft is capable of safe flight for the intended purpose.

b. The FAA should make, or require the applicant to make, appropriate inspections or tests considered necessary for safe flight.

c. The FAA should inspect damaged aircraft or an aircraft for which the airworthiness is questionable in any respect. Additionally, the FAA or the designee should inspect the LSA for which a special flight permit may be issued. The FAA is authorized, at its discretion, to allow a properly certificated mechanic or a repair station to conduct the necessary aircraft inspection(s) in support of the issuance of a special flight permit.

> **Note:** If an affirmative, technical determination cannot be made that a particular aircraft is capable of safe operation because of insufficient design, inspection, or maintenance data that normally is available for a type-certificated aircraft, the special flight permit should not be issued.

d. When the FAA requires the applicant to make the inspection, the applicant must be advised that such inspections must be—

(1) Accomplished by an appropriately certificated mechanic or repair station familiar with all of the procedures and requirements contained in this chapter.

(2) Documented in the aircraft logbook by the authorized person who conducted the inspection.

491. Special Operating Limitations. The FAA should establish limitations as deemed necessary for safe operation. Because individual circumstances may vary greatly, a list of limitations applicable in every case cannot be provided. The objective is to ensure safe operation of the aircraft. If necessary, solicit the technical assistance of other FAA offices or specialties. Limitations should be clear and concise so they can be easily understood. In addition to the limitations deemed necessary for the particular flight, the following items must be considered when establishing operating limitations:

a. Conformity to the aircraft's technical data.

b. Operational equipment necessary for safe operation of the aircraft.

c. Special qualifications required of the pilot and crewmembers. For flights that involve long distances over which various weather conditions may be encountered, the pilot in command also must be appropriately instrument-rated.

d. Aircraft weight limits.

e. Fuel and fuel distribution limits.

f. CG limits.

g. Maneuvers to which the aircraft is limited.

h. Limits on use of flight equipment, such as autopilots.

i. Meteorological conditions to be avoided and the inspections required if inadvertently encountered.

j. Airspeed limits.

k. Operation in the overweight condition must be conducted to avoid cities, towns, villages, and congested areas, or any other areas where the flights might create hazardous exposure to persons or property.

l. Runway selections, if considered necessary for safety.

m. Communications required with airport tower personnel to inform them before takeoff or landing of the nonstandard condition of the aircraft.

n. When flight over another country is planned, the ASI must emphasize to the applicant that special permission must be obtained from the country over which the aircraft will be operated.

> **Note:** When required to fly over an ICAO member state, the operating limitations issued with the special flight permit should include, when appropriate, the following statement: "This aircraft does not comply with the international standards of Annex 8 to the Convention on International Civil Aviation as follows: [describe here the item(s) which do not comply with the airworthiness requirements for standard aircraft]."

o. Any other limitation that should be prescribed for the particular flight.

492. Special Flight Permit for Operation of Overweight Aircraft.

a. General.

(1) The FAA has two primary concerns when issuing special flight permits for the temporary operation of overweight aircraft:

(a) That the public will be guarded in the event of an accident; and

(b) That when the aircraft is returned to a standard configuration, it has not been rendered unairworthy due to the overweight operations.

(2) With safety being the primary concern, it is essential that the processing office use the technical assistance of other FAA offices or specialties as deemed necessary to ensure the highest degree of safety possible. All installations, for example, a long-range fuel system or navigational equipment, must be installed in accordance with FAA-approved data.

(3) Applications for which the proposed maximum weight does not exceed 110 percent of the maximum certificated weight, and for which the certificated CG limits are not exceeded, may be processed by district offices without obtaining an engineering evaluation (except for rotorcraft).

(4) Applications for which the proposed maximum weight exceeds 110 percent of the maximum certificated weight, or the CG limits exceed the certificated limits, must be coordinated with an ACO for an engineering evaluation of the structural integrity and for any other provisions deemed necessary.

(5) All applications for rotorcraft must be coordinated with an ACO for an engineering evaluation of the structural integrity, the flight integrity, and for any other provisions deemed necessary.

(6) The processing of an application must encompass a review of the airworthiness status of the basic aircraft, an evaluation of the added installations that constitute the excess weight, required flightcrew member qualifications, and proposed operating limitations.

b. Added Installations.

(1) Technical Data.

(a) When the submitted application falls under the provisions of paragraph 492a(4) or (5) of this order, any drawings and reports submitted with the application that substantiate structural integrity must be sufficiently detailed to show that the added installations are structurally and functionally safe and to allow for a conformity inspection of the added installations.

(b) The structural report should reference the drawings used for the installation(s).

(2) Record of Installation(s).

(a) The installation(s) added to the aircraft for the intended overweight flight must be recorded in accordance with the requirements of § 43.9.

(b) The following statement must be entered in section 3 of FAA Form 337: "No person may operate this aircraft, as altered herein, unless it has within it an appropriate and current special flight permit issued under 14 CFR part 21" (figure 4-11 of this order).

(3) Auxiliary Fuel System Installations. In the evaluation of the auxiliary fuel system installations, the following items will be considered:

(a) The aircraft and auxiliary fuel system should meet all applicable original airworthiness requirements, except for those the aircraft cannot meet because of its overweight condition. The aircraft and auxiliary fuel system must be found safe for the intended flight.

(b) Fuel tank(s) installed in a pressurized area should be tested for the maximum pressure differential existing between cabin pressurization and aircraft maximum operating altitude with fuel tank(s) empty.

(c) Adequate ventilation must be provided for the fuel tank(s) and the area in which the fuel tank(s) are located to prevent the accumulation of fumes that would be detrimental to the flightcrew or present a fire or explosion hazard.

(d) A means must be provided to readily determine the quantity of fuel in the auxiliary tank(s) before takeoff. In addition, a means must be provided to indicate the quantity of fuel in tanks that have a vapor/excess fuel return line, both before takeoff and during flight.

(e) The location of the fuel tank(s) in the aircraft is a major factor in determining that the aircraft is safe for flight because the added fuel and fuel facilities have the greatest effect on the aircraft's CG. In addition, the fuel system installation must not restrict entrance to or exit from the aircraft as provided by the applicable section of 14 CFR. If required under § 23.1001 (amendment 23-7), the aircraft should have an adequate fuel jettison system installed.

(f) Auxiliary fuel systems that are not complete, that is, not connected to the basic aircraft fuel system, may not be considered for issuance of a special flight permit.

(4) Engine Oil Quantity. The applicant will show that the oil supply provided for each engine is sufficient to ensure satisfactory cooling and system circulation for the duration of the flight. If deemed necessary, an oil transfer system for replenishing the engine oil while the aircraft is in flight must be provided.

(5) Maximum Weight and Center of Gravity Limits.

(a) Section 21.197(b) limits any excess weight over the certificated maximum weight to additional fuel, fuel carrying facilities, and navigational equipment added for the intended flight. It must be determined that this part of the maximum weight complies with this requirement.

(b) When numerous alterations are performed, it may be necessary to weigh the aircraft to establish the aircraft weight and the CG limits. The computations should be evaluated for accuracy. It also may be necessary to require flight testing at the new maximum weight and CG limits to determine that the aircraft is safe for operation. Computed weight and balance information should be reflected on FAA Form 337, section 8.

(c) Operation of rotorcraft over the certificated maximum weight presents some unique conditions over and above those encountered with fixed-wing aircraft. Special attention should be given to this type of aircraft. A careful evaluation should be made to determine what effect the overweight operation may have on the retirement times of critical articles.

(6) Operating limitations must be prescribed as deemed necessary, and include—

(a) Operation in the overweight condition must be conducted to avoid cities, towns, villages, and congested areas, or any other areas where the flights might create hazards to persons or property.

(b) Runway [specify] must be used for overweight takeoff (and landing when appropriate). If an en route stop is scheduled, the following must be added to this limitation: Contact FAA office, [city, routing symbol, and telephone number] for runway to be used for overweight takeoff and landing at [city].

(c) A copy of FAA Form 337 covering the additional fuel-carrying facilities and equipment must be in the aircraft.

(d) Special entries to note required inspection of the aircraft for possible damage due to overweight operation upon completion of overweight flight(s).

493. Special Flight Permit for Production Flight Testing for Aircraft Other Than LSA. A special flight permit issued for production flight testing may be used by a manufacturer to meet the requirements of § 91.203 when operating new production aircraft for the purpose of production flight testing, as provided in § 21.197. This permit may be used with any valid registration and is transferable from one aircraft to another. The permit normally is valid only for the purpose of production flight testing. However, when deemed appropriate, the MIDO/CMO may allow both production flight testing and customer demonstration to be entered in block A of FAA Form 8130-7 as explained in paragraph 494 of this order. The applicable

operating limitations are printed in block B on the reverse side of FAA Form 8130-7 (figure 4-1 of this order). Refer to section 6 of this chapter for special flight permits for LSA production flight testing.

a. Eligibility.

(1) A manufacturer producing aircraft under part 21, subpart F or G, is eligible to obtain special flight permits for production flight testing.

(2) A manufacturer producing aircraft before issuance of the TC also is eligible for a special flight permit for production flight testing provided the following conditions are met:

(a) The manufacturer holds a TC and a currently effective PC for at least one other aircraft in the same category.

(b) The FAA official flight test program is in progress.

(c) A prototype aircraft of that model has been flown by the manufacturer under an experimental certificate to ensure there are no adverse flight characteristics and that production test pilots are fully familiar with the aircraft.

(d) An FAA-accepted production flight test procedure and checklist for the aircraft involved will be used to ensure all requirements for production flight tests are fulfilled.

(e) The aircraft is not being flown by the manufacturer for purposes other than production flight tests, except as identified in paragraph 494 of this order.

(f) Limitations have been established to define the production flight test area.

(3) A manufacturer producing LSA under § 21.190 is eligible to obtain special flight permits for production flight testing within the provisions established in paragraph 436 of this order.

(4) There may be cases where a TC/PC holder is selling new aircraft to the foreign military that are not produced under their PC and do not have a TC. The aircraft manufacturer may be eligible for § 21.197 special flight permits for production flight testing under § 21.197(a)(3). Ownership of those aircraft must be held by the manufacturer during production flight testing.

b. Application and Issue.

(1) An eligible manufacturer should apply for as many special flight permits for production flight testing as deemed necessary for satisfactory coverage of the aircraft involved. The number of special flight permits for production flight testing issued to the manufacturer must be limited to actual need.

(2) A MIDO that has issued special flight permits for production flight testing should maintain suitable accountability records that show expiration dates not exceeding 12 months from the date of issuance, and the number of permits issued to each manufacturer. It is recommended that each permit issued be numbered serially in the upper-right corner of the airworthiness certificate by the issuing office; for example, SW-MIDO-41 #1. The same serial number may be reassigned to a manufacturer each year. The issuing official must sign each permit and associated limitations.

494. Special Flight Permit for Conducting Customer Demonstration Flights. A special flight permit may be used by a manufacturer to meet the requirements of § 91.203 when operating a new production aircraft for the purpose of conducting customer demonstration flights in accordance with § 21.197(a)(5). This permit may be used with any valid registration. This permit is normally issued only for the purpose of customer demonstration. However, as stated in paragraph 493 of this order, customer demonstration may be listed in block A of FAA Form 8130-7 along with production flight testing, but will not be issued in conjunction with any other special flight permit purposes. When both flight purposes are listed in block A of FAA Form 8130-7, the aircraft's operating limitations must clearly state that no customer demonstration flights are allowed until the aircraft has satisfactorily completed its production flight tests. The format for listing both flight purposes is "Production Flight Testing or Customer Demonstration."

Note: The meaning of the word "customer" for the purpose of this airworthiness certificate means any person or organization judged by the manufacturer to be an acknowledged or potential aircraft purchaser.

a. Eligibility. A special flight permit for conducting customer demonstration flights may be issued when the following conditions are met:

(1) The new production aircraft was produced under a PC or TC.

(2) The PC/TC holder has satisfactorily completed production flight tests. Completion of production flight tests indicates acceptance by the production flight test pilot and no further flight tests are required or planned.

b. Application and Issue.

(1) A letter from the manufacturer must accompany the application describing the customer demonstration flights to be made if sufficient information cannot be included on the application.

(2) Upon receipt of a properly executed application, the issuing FAA representative must inspect the aircraft and prescribe the operating limitations in accordance with paragraph 491 and as deemed necessary for safe operation. It is not necessary to repeat the limitations on the reverse side of FAA Form 8130-7, except for the statement, "Subject to D(2) on reverse side," which must be entered in block C on the face side of the form. The demonstration flight area(s) also must be listed on the operating limitations. Special flight permits may be issued only for the period needed to complete demonstration flights, usually not to exceed 90 days.

(3) If the MIDO determines that the PC holder has procedures in place to safeguard the storage and issuance of special flight permits for customer demonstration flights, permits that are transferable from one aircraft to another may be issued. It is still necessary to prescribe operating limitations in accordance with paragraph 491 and as deemed necessary for safe operation. The statement, "Subject to D(2) on reverse side" must be entered in block C on the face side of FAA Form 8130-7. The expiration date shown on FAA Form 8130-7 and the associated limitations must not exceed 12 months from the date of issuance. The number of special flight permits for conducting customer demonstration flights issued to a manufacturer must be limited to actual need.

(4) The MIDO issuing special flight permits for customer demonstration flights will maintain a copy of the complete file in accordance with record retention requirements.

495. Special Flight Permit for Certain Large Aircraft for Which Part 125, Certification and Operations: Airplanes Having a Seating Capacity of 20 or More Passengers or a Maximum Payload Capacity of 6,000 Pounds or More, Is Not Applicable.

a. Eligibility. A special flight permit may be issued for certain large aircraft for which part 125 is not applicable. In those cases, the provisions of paragraph 495b of this order must be met.

b. Application and Issue.

(1) Before issuance of a special flight permit, the applicant must select, identify in the aircraft maintenance records, and use one of the programs specified in § 91.409(f). If the program selected contains provisions addressing situation-specific inspection of the aircraft, then those provisions may be used to ensure safe operation of the aircraft. If the program selected does not contain those provisions, the FAA will specify the appropriate inspections and/or tests required to ensure safe operation.

Note: Only Flight Standards ASIs can approve the inspection program.

(2) In some cases the applicant may not intend to place the aircraft in service following the flight authorized by the special flight permit. In this case the applicant may wish to select, identify, and use the program specified in § 91.409(f)(4). Unless provisions for additional flights are provided for in the FAA-approved program, no additional flights are permitted.

(3) The following examples illustrate how the above procedures may be applied:

Example 1: ABC Airlines, operating a B-777 aircraft in air carrier service, wishes to lease another B-777 from XYZ Leasing. The subject aircraft has been in storage for 1 year. ABC Airlines wishes to operate the aircraft from the point of storage to a maintenance facility before placing the aircraft in service with the airline. ABC Airlines may choose to select, identify in the maintenance records, and use the inspection program that is part of ABC Airlines' Continuous Airworthiness Maintenance Program (CAMP) for its B-777, as provided in § 91.409(f)(4). If the selected CAMP contains provisions for inspection before the flight of the aircraft being removed from storage, those provisions may be used to ensure safe operation of the aircraft. If the CAMP does

not contain such provisions, the CAMP may still be selected; however, the FAA must require ABC Airlines to make appropriate inspections or tests necessary to ensure safe operation.

Example 2: XYZ Leasing wishes to operate its A-300 from one storage location to another. When applying for the special flight permit, XYZ submits a description of the inspections and tests it considers necessary to ensure safe operation of the aircraft. Upon review of the submitted description, the FAA issues the special flight permit with the conditions and limitations under which XYZ may operate its aircraft following the satisfactory completion of the inspections and tests described. XYZ may then select, identify, and use the description of inspections and tests approved by the Flight Standards ASI as the inspection program under which the aircraft is to be operated for the purpose of this flight only.

(4) The scope and detail of the inspections and/or tests required to ensure safe operation may vary considerably depending on why the permit is issued and/or the conditions or circumstances surrounding the subject aircraft. In-service aircraft that have been routinely maintained and/or inspected under an approved inspection program may not require more than the normal inspections routinely required.

(5) Aircraft that have been damaged or have been out of service for an extended period of time may require additional inspections or tests to ensure safety. Aircraft that have been damaged may require engineering evaluations or special tests to determine airworthiness. In the case of aircraft that have been out of service, the way the aircraft was stored should be evaluated. In many cases, aircraft in storage have been routinely maintained and inspected, and have had preventive maintenance performed at regular intervals. These aircraft normally would require less attention before any anticipated flight. However, any aircraft that has been in storage for an extended period of time requires, at the very least, an extensive visual inspection by a properly certificated mechanic, an inspection of the fuel storage and delivery systems for contamination, and operational checks of all systems and equipment that may be required to function on the intended flight.

(6) Indiscriminate operation of these types of aircraft should be discouraged by restricting the operation of the aircraft to specific airports and to a specific flight path. The special flight permit should be issued for no more than 7 days.

(7) When the flight characteristics of the aircraft have not been appreciably altered, persons other than flightcrew members and/or persons essential to the operation of the aircraft may be carried aboard during flight operations authorized by a special flight permit. In those cases, the passenger-carrying requirements of part 91 will apply.

(8) At the discretion of the person issuing the special flight permit, an FAA Flight Standards Operations Inspector, type rated in the same or similar aircraft, may be consulted regarding the adequacy and appropriateness of the conditions and limitations of the special flight permit.

(9) Special flight permits for large aircraft are issued by the FSDO having geographic responsibility for the area in which the aircraft is located. A CHDO may issue a special flight permit for its part 121, part 125, or part 133, Rotorcraft External-Load Operations, aircraft operations or part 137, Agricultural Aircraft Operations, certificate holders who do not have a continuing authorization, but only for those aircraft listed on the certificate holder's aircraft listing. A CHDO may not issue a special flight permit for an aircraft located outside the CHDO's geographic boundaries unless that aircraft is listed on the certificate holder's aircraft listing.

(10) To provide proper surveillance and oversight of the flight operations of these types of aircraft, it is recommended that the issuing office advise the destination FSDO or regional airworthiness branch of the conditions and limitations of the special flight permit, as well as the aircraft's anticipated arrival time and destination.

(11) The operation of noise-restricted aircraft requires an SFA issued in accordance with § 91.858 and must be obtained by applying 30 days in advance to the FAA's Office of Environment and Energy (AEE). A special flight permit is not required in these instances and will not be issued unless the aircraft does not meet applicable airworthiness standards as provided in § 21.197. All other inspection program requirements apply.

Figure 4-1. Sample FAA Form 8130-7, Special Airworthiness Certificate

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION		
	PURPOSE		
B	MANU-FACTURER	NAME	
		ADDRESS	
C	FLIGHT	FROM	
		TO	
D	N-		SERIAL NO.
	BUILDER		MODEL
E	DATE OF ISSUANCE		EXPIRY
	OPERATING LIMITATIONS DATED		ARE PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE		DESIGNATION OR OFFICE NO.

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-2. Sample FAA Form 8130-7, Special Airworthiness Certificate for Restricted Category Aircraft Certificated Under § 21.25(b)(7)

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION RESTRICTED		
	PURPOSE 14 CFR 21.25(b)(7)(OTHER), SEE ATTACHED LIMITATIONS		
B	MANU-FACTURER	NAME	
		ADDRESS	
C	FLIGHT	~~FROM~~ SEE ATTACHED OPERATING LIMITATIONS	
		~~TO~~ SEE ITEM D, REVERSE SIDE OF THIS CERTIFICATE	
D	N-		SERIAL NO.
	BUILDER		MODEL
E	DATE OF ISSUANCE		EXPIRY
	OPERATING LIMITATIONS DATED		ARE PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE		DESIGNATION OR OFFICE NO.

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-3. Sample FAA Form 8130-7, Special Airworthiness Certificate for Primary Category Aircraft Certificated Under § 21.184(a)

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION PRIMARY CATEGORY		
	PURPOSE N/A		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 2EZ		SERIAL NO. F0002
	BUILDER Flight Corp		MODEL F-C-1A
E	DATE OF ISSUANCE 31 Jan 2015		EXPIRY Unlimited
	OPERATING LIMITATIONS DATED		ARE PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE Bob Gooday *Bob Gooday*		DESIGNATION OR OFFICE NO. CE43

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-4. Sample FAA Form 8130-7, Special Airworthiness Certificate for Primary Category Aircraft Certificated Under § 21.184(b)

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION PRIMARY CATEGORY		
	PURPOSE N/A		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 345FT		SERIAL NO. FL009
	BUILDER Flight LTD.		MODEL FL-1A
E	DATE OF ISSUANCE 31 Jan 2015		EXPIRY Unlimited
	OPERATING LIMITATIONS DATED		ARE PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE Sue Lacy *Sue Lacy*		DESIGNATION OR OFFICE NO. CE45

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-5. Sample FAA Form 8130-7, Special Airworthiness Certificate for Primary Category Aircraft Certificated Under § 21.184(c)

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION PRIMARY CATEGORY		
	PURPOSE N/A		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 7897T		SERIAL NO. 172A-001
	BUILDER Cessna Aircraft Corp.		MODEL 172A
E	DATE OF ISSUANCE 31 Jan 2014		EXPIRY Unlimited
	OPERATING LIMITATIONS DATED		ARE PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE Joe Mendez *Joe Mendez*		DESIGNATION OR OFFICE NO. NW24

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-6. Sample FAA Form 8130-7, Special Airworthiness Certificate for Experimental to Show Compliance With the CFR

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Experimental		
	PURPOSE To Show Compliance With the CFR		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 654GL		SERIAL NO. NX09
	BUILDER Night		MODEL N7-XRay
E	DATE OF ISSUANCE 28 Aug 2014		EXPIRY 27 Aug 2015
	OPERATING LIMITATIONS DATED 28 Aug 2014 ARE PART OF THIS CERTIFICATE		
	SIGNATURE OF FAA REPRESENTATIVE Larry Kim *Larry Kim*		DESIGNATION OR OFFICE NO. CE34

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-7. Sample FAA Form 8130-12, Eligibility Statement, Amateur-Built Aircraft

Form Approved
OMB NO. 2120-0018

US Department of Transportation
Federal Aviation Administration

ELIGIBILITY STATEMENT
AMATEUR-BUILT AIRCRAFT

Instructions: Print or type all information except signature. Submit original to an authorized FAA representative. Applicant completes Section I thru III. Notary Public Completes Section IV.

I. REGISTERED OWNER INFORMATION

Name(s) _____

Address(es) _____
No. & Street City State Zip

Telephone No.(s) (___) _____ (___) _____
Residence Business

II. AIRCRAFT INFORMATION

Model _____ Engine(s) Make _____

Assigned Serial No. _____ Engine(s) Serial No. _____

Registration No. _____ Prop./Rotor(s) Make _____

Aircraft Fabricated: Plan ☐ Kit ☐ Prop./Rotor(s) Serial No.(s) _____

III. MAJOR PORTION ELIGIBILITY STATEMENT OF APPLICANT

I certify that the major portion of this aircraft (identified in Section II above) was fabricated and assembled by

_____
Names of all builders (Please Print)

solely for my (our) education or recreation, in accordance with 14 CFR part 21, Certification Procedures for Products and Parts, § 21.191(g), Operating amateur-built aircraft. I have records to support this statement and will make them available to the FAA upon request.

During the fabrication and assembly of this project, I/ we used the following commercial assistance (mark N/A if no commercial assistance was used):

Name of company or individual(s)	City & State	Phone

-NOTICE-

Whoever in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or who makes any materially false, fictitious or fraudulent statement or representation, or makes or uses any false writing or document knowing the same to contain any materially false, fictitious or fraudulent statement or entry, shall be fined under this title, imprisoned not more than 5 years or, if the offense involves international or domestic terrorism, imprisoned not more than 8 years, or both.
(U.S. Code, Title 18, Sec. 1001)

APPLICANT'S DECLARATION

I hereby certify that all statements and answers provided by me in this statement form are complete and true to the best of my knowledge, and I agree that they are to be considered part of the basis for issuance of any FAA certificate to me. I have also read and understand the Privacy Act statement that accompanies this form.

Signature of Applicant (*In Ink*)	Date

IV. NOTARIZATION STATEMENT

FAA Form 8130-12 (08-2009) Supersedes Previous Edition NSN:0052-00-089-9002

Figure 4-8. Sample FAA Form 8000-38, Fabrication/Assembly Operation Checklist

FABRICATION/ASSEMBLY OPERATION CHECKLIST

Company Name _____.
Address _____.
_____.
Aircraft Model _____ Document Name and Date _____.
Type of Aircraft _____.

	Accomplished By	
	Kit Manufacturer	Amateur
FUSELAGE		
1. Fabricate Special Tools or Fixtures		
2. Fabricate Longitudinal Members, Cores or Shells		
3. Fabricate Bulkheads or Cross Members		
4. Assemble Fuselage Basic Structure		
5. Fabricate Brackets and Fittings		
6. Install Brackets and Fittings		
7. Fabricate Cables, Wire, and Lines		
8. Install Cables, Wires, and Lines		
9. Fabricate Fuselage Covering or Skin		
10. Install Fuselage Covering or Skin		
11. Fabricate Windshield/Windows/Canopy		
12. Install Windshield/Windows/Canopy		
WINGS		
1. Fabricate Special Tools or Fixtures		
2. Fabricate Wing Spars		
3. Fabricate Wing Ribs or Cores		
4. Fabricate Wing Leading and Trailing Edge		
5. Fabricate Drag/Anti-Drag Truss Members		
6. Fabricate Wing Brackets and Fittings		
7. Fabricate Wing Tips		
8. Assemble Basic Wing Structures		
9. Install Wing Leading/Trailing Edge and Tips		
10. Install Drag/Anti-Drag Truss		
11. Fabricate Cables, Wires and Lines		
12. Install Cables, Wires, and Lines		
13. Fabricate Wing Covering or Skin		
14. Install Wing Covering or Skin		
15. Fabricate Wing Struts/Wires		
16. Install and Rig Wings and Struts		

FAA Form 8000-38 (12-91)

Figure 4-8. Sample FAA Form 8000-38, Fabrication/Assembly Operation Checklist (Continued)

FABRICATION/ASSEMBLY OPERATION CHECKLIST (Continued)		
	Accomplished By	
	Kit Manufacturer	Amateur
FLIGHT CONTROLS		
1. Fabricate Special Tools or Fixtures		
2. Fabricate Aileron Spars		
3. Fabricate Aileron Ribs or Cores		
4. Assemble Aileron Structure		
5. Fabricate Aileron Leading and Trailing Edge		
6. Assemble Aileron Leading and Trailing Edge		
7. Fabricate Aileron Brackets and Fittings		
8. Install Aileron Brackets and Fittings		
9. Fabricate Aileron Covering or Skin		
10. Install Aileron Covering or Skin		
11. Fabricate Aileron Trim Tab		
12. Install Aileron Trim Tab		
13. Install and Rig Aileron		
14. Fabricate Flap Spars		
15. Fabricate Flap Ribs or Cores		
16. Assemble Flap Structure		
17. Fabricate Flap Leading and Trailing Edge		
18. Assemble Flap Leading and Trailing Edge		
19. Fabricate Flap Brackets and Fittings		
20. Install Flap Brackets and Fittings		
21. Fabricate Flap Covering or Skin		
22. Install Flap Covering or Skin		
23. Install and Rig Flap		
24. Fabricate Elevator Spars		
25. Fabricate Elevator Ribs or Cores		
26. Assemble Elevator Structure		
27. Fabricate Elevator Leading and Trailing Edge		
28. Assemble Elevator Leading and Trailing Edge		
29. Fabricate Elevator Brackets and Fittings		
30. Install Elevator Brackets and Fittings		
31. Fabricate Elevator Covering or Skin		
32. Install Elevator Covering or Skin		
33. Fabricate Elevator Trim Tab		
34. Install Elevator Trim Tab		
35. Install and Rig Elevator		
36. Fabricate Rudder Spar		
37. Fabricate Rudder Ribs or Cores		
38. Assemble Rudder Structure		
39. Fabricate Rudder Leading and Trailing Edge		
40. Assemble Rudder Leading and Trailing Edge		
41. Fabricate Rudder Brackets and Fittings		
42. Install Rudder Brackets and Fittings		
43. Fabricate Rudder Covering or Skin		
44. Install Rudder Covering or Skin		
45. Fabricate Rudder Trim Tab		
46. Install Rudder Trim Tab		
47. Install and Rig Rudder		

FAA Form 8000-38 (12-91)

Figure 4-8. Sample FAA Form 8000-38, Fabrication/Assembly Operation Checklist (Continued)

FABRICATION/ASSEMBLY OPERATION CHECKLIST (Continued)		
	Accomplished By	
	Kit Manufacturer	Amateur
EMPENNAGE		
1. Fabricate Special Tools of Fixtures		
2. Fabricate Spars		
3. Fabricate Ribs or Cores		
4. Fabricate Leading and Trailing Edges		
5. Fabricate Tips		
6. Fabricate Brackets and Fittings		
7. Assemble Empennage Structures		
8. Install Leading/Trailing Edges and Tips		
9. Install Fittings		
10. Fabricate Cables, Wires, and Lines		
11. Install Cables, Wires and Lines		
12. Fabricate Empennage Covering or Skin		
13. Install Empennage Covering or Skin		
CANARD		
1. Fabricate Canard		
2. Assemble Canard Structure		
3. Install and Rig Canard		
LANDING GEAR		
1. Fabricate Special Tools or Fixtures		
2. Fabricate Struts		
3. Fabricate Brakes System		
4. Fabricate Retraction System		
5. Fabricate Cables, Wires and Lines		
6. Assemble Wheels, Brakes, Tires, Landing Gear		
7. Install Landing Gear System Components		
PROPULSION		
1. Fabricate Special Tools of Fixtures		
2. Fabricate Engine Mount		
3. Fabricate Engine Cooling System/Baffles		
4. Fabricate Induction System		
5. Fabricate Exhaust System		
6. Fabricate Engine Controls		
7. Fabricate Brackets and Fittings		
8. Fabricate Cables, Wires and Lines		
9. Assemble Engine		
10. Install Engine and Items Listed Above		
11. Fabricate Engine Cowling		
12. Install Engine Cowling		
13. Fabricate Propeller		
14. Install Propeller		
15. Fabricate Fuel Tank		

FAA Form 8000-38 (12-91)

Figure 4-8. Sample FAA Form 8000-38, Fabrication/Assembly Operation Checklist (Continued)

FABRICATION/ASSEMBLY OPERATION CHECKLIST (Continued)		
	Accomplished By	
	Kit Manufacturer	Amateur
PROPULSION (Continued)		
16. Install Fuel Tank		
17. Fabricate Fuel System Components		
18. Install Fuel System Components		
MAIN ROTOR DRIVE SYSTEMS AND CONTROL MECHANISM(S)		
1. Fabricate Special Static and Dynamic Main Rotor Rigging Tools		
2. Fabricate/Assemble Main Rotor Drive Train		
3. Install Main Rotor Drive Train Assembly		
4. Fabricate/Assemble Main Rotor Shaft and Hub Assembly		
5. Install Main Rotor Shaft and Hub Assembly		
6. Align Main Rotor Shaft-Drive Train, Shaft and Hub Assembly		
7. Fabricate Main Rotor Rotating Controls		
8. Install Main Rotor Rotating Controls		
9. Fabricate Main Rotor Non-Rotating Controls		
10. Rig Main Rotor Rotating and Non-Rotating Controls		
11. Fabricate Main Rotor Blades		
12. Install Main Rotor Blades on Rotor Hub		
13. Statically Balance and Rig Main Rotor System		
14. Dynamically Track and Balance Main Rotor System		
TAIL ROTOR DRIVE SYSTEMS AND CONTROL MECHANISM(S)		
1. Fabricate Special Static Tail Rotor Rigging Tools		
2. Fabricate Vertical Trim Fin		
3. Install Vertical Trim Fin		
4. Fabricate Horizontal Stabilizer		
5. Install Horizontal Stabilizer		
6. Fabricate Tail Rotor Drive System		
7. Install Tail Rotor Drive System		
8. Fabricate Tail Cone or Frame		
9. Install and Rig Tail Cone or Frame		
10. Rig Vertical Trim Fin		
11. Fabricate Tail Rotor Shaft and Hub Assembly		
12. Install Tail Rotor Shaft and Hub Assembly		
13. Fabricate Tail Rotor Rotating and Non-Rotating Controls		
14. Rig Tail Rotor Rotating and Non-Rotating Controls		
15. Fabricate/Assemble Tail Rotor Blades		
16. Install Tail Rotor Blades		
17. Statically Balance and Rig Tail Rotor System		
18. Dynamically Track and Balance Tail Rotor System		

FAA Form 8000-38 (12-91)

Figure 4-8. Sample FAA Form 8000-38, Fabrication/Assembly Operation Checklist (Continued)

FABRICATION/ASSEMBLY OPERATION CHECKLIST (Continued)		
	Accomplished By	
	Kit Manufacturer	Amateur
COCKPIT/INTERIOR		
1. Fabricate Instrument Panel		
2. Install Instrument Panel and Instruments		
3. Fabricate Seats		
4. Install Seats		
5. Fabricate Electrical Wiring, Controls/Switches		
6. Install Electrical System Controls/Switches		
TOTAL		

Comments

Printed Name	Signature	Date

FAA Form 8000-38 (12-91)

Figure 4-9. Sample FAA Form 8130-7, Unlimited

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Restricted		
	PURPOSE AGRICULTURAL		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	~~FROM~~ SEE ATTACHED OPERATING LIMITATIONS	
		~~TO~~ SEE ITEM D, REVERSE SIDE OF THIS CERTIFICATE	
D	N- 32104		SERIAL NO. 2245
	BUILDER BELL		MODEL 47G-4
E	DATE OF ISSUANCE 15 Apr 2015		EXPIRY Unlimited
	OPERATING LIMITATIONS DATED 15 Apr 2015 ARE PART OF THIS CERTIFICATE		
	SIGNATURE OF FAA REPRESENTATIVE Bart J. Johnson *Bart J. Johnson*		DESIGNATION OR OFFICE NO. NW-XX

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-10. Sample FAA Form 8130-7, Special Flight Permit

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Special Flight Permit		
	PURPOSE Production Flight Testing or Customer Demonstration		
B	MANU-FACTURER	NAME The Boeing Company	
		ADDRESS P.O. Box 767, Renton WA 13567	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- N/A		SERIAL NO. N/A
	BUILDER N/A		MODEL N/A
E	DATE OF ISSUANCE 31 Oct 2014		EXPIRY 30 Nov 2014
	OPERATING LIMITATIONS DATED 31 Oct 2014 ARE PART OF THIS CERTIFICATE		
	SIGNATURE OF FAA REPRESENTATIVE Sam T. Smith *Sam T. Smith*		DESIGNATION OR OFFICE NO. NM-XX

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-11. Sample FAA Form 337, Major Repair and Alteration

US Department of Transportation Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No. 2120-0020 2/28/2011 | Electronic Tracking Number | For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark: N93142	Serial No.: 4312	
	Make: Beech	Model: D50A	Series:
2. Owner	Name *(As shown on registration certificate)*: Ted K. Bauer	Address *(As shown on registration certificate)*: Address 1496 Oak Lane; City Vienna; State VA; Zip 21666; County USA	

3. For FAA Use Only

No person may operate this aircraft, as altered herein, unless it has within it an appropriate and current Special Flight Permit issued under the provisions of 14 CFR part 21.

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☐	AIRFRAME	———	*(As described in Item 1 above)*	———
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address: Name Flight Inc.; Address 419 Harford Road; City Windsor Locks; State CT; Zip 06066; County USA

B. Kind of Agency:
- ☐ U. S. Certificated Mechanic
- ☐ Manufacturer
- ☐ Foreign Certificated Mechanic
- C. Certificate No.
- ✓ Certificated Repair Station — 1234
- ☐ Certificated Maintenance Organization — Airframe Class 3

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B ☐

Signature/Date of Authorized Individual: S.J. Wilborn/ 11/16/2009

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☐ Approved ☐ Rejected

BY:
- ✓ FAA Flt. Standards Inspector
- ☐ Manufacturer
- ☐ Maintenance Organization
- ☐ Persons Approved by Canadian Department of Transport
- ☐ FAA Designee
- ☐ Repair Station
- ☐ Inspection Authorization
- Other *(Specify)*

Certificate or Designation No.

Signature/Date of Authorized Individual: A.W. Reed/ 11/18/2009

FAA Form 337 (10-06)

Figure 4-12. Sample FAA Form 8130-7, Special Flight Permit LSA

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Special Flight Permit		
	PURPOSE Production Flight Testing LSA		
B	MANU-FACTURER	NAME The Acme Company	
		ADDRESS 420 W Jackson, Mexico MO 65265	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 1234LS		SERIAL NO. 0007
	BUILDER Acme Co.		MODEL Pegasus
E	DATE OF ISSUANCE 11 Sep 2015		EXPIRY 30 Sep 2015
	OPERATING LIMITATIONS DATED 11 Sep 2015 ARE PART OF THIS CERTIFICATE		
	SIGNATURE OF FAA REPRESENTATIVE Sam T. Smith *Sam T. Smith*		DESIGNATION OR OFFICE NO. CE-XX

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-13. Sample Special Flight Permit
Operating Limitations for LSA Category Production Flight Testing

U.S. Department
of Transportation

Federal Aviation
Administration

SPECIAL FLIGHT PERMIT
OPERATING LIMITATIONS

MAKE: ACME MODEL: Flyer I

S/N: 00002 REG. NUMBER: NXXXX

1. No person may operate this aircraft for other than the purpose of meeting the requirements of Title 14 of the Code of Federal Regulations (14 CFR) 21.190(c)(7) during flight testing. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of 14 CFR part 91 and all additional limitations herein prescribed. These operating limitations are a part of a special flight permit and are to be carried in the aircraft at all times and be available to the pilot in command of the aircraft.

2. All flights must be conducted within the geographical area described as follows. The area must be described by radius, coordinates, and/or landmarks. The designated area must be over open water or sparsely populated areas having light air traffic. The size of area must be that required to safely conduct the anticipated maneuvers and tests.

3. All flights must be conducted and recorded in accordance with the manufacturer's production acceptance test procedure that meets the applicable consensus standard.

4. This aircraft is to be operated under Visual Flight Rules, day only.

5. The production test pilot is to be the sole occupant.

_____ _____

Date FAA Representative Designation

Figure 4-14. Sample FAA Form 8130-7, Special Airworthiness Certificate for LSA Category Aircraft Certificated Under § 21.190

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Light-sport		
	PURPOSE Airplane		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 2LSA		SERIAL NO. 00002
	BUILDER ACME Co.		MODEL Flyer I
E	DATE OF ISSUANCE 15 Nov 2014		EXPIRY Unlimited
	OPERATING LIMITATIONS DATED 15 Nov 2014 ARE PART OF THIS CERTIFICATE		
	SIGNATURE OF FAA REPRESENTATIVE Steven Zahrt *Steven Zahrt*		DESIGNATION OR OFFICE NO. CE43

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-15. Sample FAA Form 8130-7, Special Airworthiness Certificate for Experimental LSA Certificated Under § 21.191

Front

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

SPECIAL AIRWORTHINESS CERTIFICATE

A	CATEGORY/DESIGNATION Experimental		
	PURPOSE Operating Light-Sport Aircraft (PPC)		
B	MANU-FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 9777		SERIAL NO. 0022
	BUILDER Powrachute		MODEL Pegasus
E	DATE OF ISSUANCE 30 Dec 2014		EXPIRY Unlimited
	OPERATING LIMITATIONS DATED 30 Dec 2014 ARE PART OF THIS CERTIFICATE		
	SIGNATURE OF FAA REPRESENTATIVE Johnnie Mulsow *J.S. Mulsow*		DESIGNATION OR OFFICE NO. CE34

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding $1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE TITLE 14, CODE OF FEDERAL REGULATIONS (CFR).

FAA Form 8130-7 (04-11) Previous Edition 07/04 May be Used until Depleted *SEE REVERSE SIDE* *NSN: 0052-00-693-4000*

Back

A	This airworthiness certificate is issued under the authority of Public Law 104-6, 49 United States Code (USC) 44704 and Title 14 Code of Federal Regulations (CFR).
B	The airworthiness certificate authorizes the manufacturer named on the reverse side to conduct production fight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests under this certificate: (1) Carrying persons or property for compensation or hire: and/or (2) Carrying persons not essential to the purpose of the flight.
C	This airworthiness certificate authorizes the flight specified on the reverse side for the purpose shown in Block A.
D	This airworthiness certificate certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable CFR. The aircraft does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention On International Civil Aviation. No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the FAA as part of this certificate; (2) over any foreign country without the special permission of that country.
E	Unless sooner surrendered, suspended, or revoked, this airworthiness certificate is effective for the duration and under the conditions prescribed in 14 CFR, Part 21, Section 21.181 or 21.217.

Figure 4-16. Sample FAA Form 8130-15, Light-Sport Aircraft Statement of Compliance

Form Approved
O.M.B. No. 2120-0690

U.S. Department of Transportation
Federal Aviation Administration

Light-Sport Aircraft / Kit Statement of Compliance

INSTRUCTIONS - Print or type. If additional space is required, use an attachment. Present original to an authorized FAA Representative. Retain this form in the aircraft's permanent records.

1. Manufacturer Name	2. Manufacturer Address *(street, city, state, zip)*	
ACME Company LLC.	420 W Jackson, Mexico, MO 65265	
3. Country of Manufacture	4. Date of Manufacture *(mm/dd/yyyy)*	5. Aircraft Serial No.
USA	10/23/2011	0001

6. Aircraft Make	7. Aircraft Model	8. Max. Take-off Weight	9. V_H	10. V_{S1}
ACME	Flyer I	1430 lbs	120 KCAS	45 KCAS

Check applicable items: ☒ First of Make or Model ☒ Aircraft (§21.190) ☐ Kit (§21.191(i)(2)) ☒ Operation on Water

☒ Airplane ☐ Powered Parachute ☐ Weight-Shift-Control ☐ Glider ☐ Lighter-Than-Air ☐ Gyroplane

FAA Applicable Accepted Standard(s) *(with Dash Number)*	**Manufacturer's Documentation** *(with Revision and Issue Date)*
11. Design and Performance ASTM Standard F2245-10C ASTM Standard F2626-07	12. Design and Performance ACME-D&P-Rev.A, 09/17/2010
13. Required Equipment ASTM Standard F2245-10C	14. Required Equipment Listing ACME-Flyer I Listing-Rev C., 10/17/2010
15. Quality Assurance ASTM Standard F2279-06	16. Manufacturer's Quality Assurance System ACME-QCS.01, 08/10/2011
17. Production Acceptance Tests ASTM Standard F2279-06 ASTM Standard F2506-10	18. Manufacturer's Production Acceptance Tests ACME-QCS.02-ATP, 04/28/2011 ACME-QCS.03-ATP, 05/15/2011
19. Maintenance & Inspection Procedures ASTM Standard F2483-05	20. Aircraft Maintenance and Inspection Procedures ACME-MM 1st Edition, 08/15/2011
21. Continued Airworthiness ASTM Standard F2295-06	22. Manufacturer's Continued Airworthiness System ACME-QCS.04-CAS, 04/28/2011
23. Manufacturer's Assembly Instructions N/A	24. Manufacturer's Assembly Instructions (LSA Kit) N/A
25. Powerplant or Motor System ASTM Standard F2339-06	26. Powerplant or Motor System ACME-QCS.05-D&M, 06/02/2011 ACME-MFG.02-Rev C, 08/12/2011
27. Flight Training Supplement ASTM Standard F2245-10C	28.Aircraft Flight Training Supplement ACME-FTS 1st Edition, 08/19/2011
29. Pilot's Operating Handbook/Aircraft Operating Instructions ASTM Standard F2746-09	30. Pilot's Operating Handbook/Aircraft Operating Instructions ACME-AOI 1st Edition, 08/20/2011

Comments *(additional statements may be stated here or attached)*
The aircraft flight test is recorded in the aircraft records per 14 CFR section 91.417, and an airframe time of 5 hours is attributed to flight testing. All applicable service directives to date have been incorporated and annotated in the aircraft records.

CERTIFICATION: CERTIFICATION: I hereby certify that aircraft/kit serial number 0001 as equipped, complies with the Title 14 of the Code of Federal Regulations part 1, Definitions and Abbreviations, § 1.1 definition for light-sport aircraft, and the applicable portions of the consensus standards identified on this statement of compliance for U.S. airworthiness certification. The manufacturer will monitor and correct safety-of-flight issues through the issuance of safety directives and the manufacturer's continued airworthiness system to support the aircraft throughout its life. This aircraft/kit (1) was manufactured following the consensus standards procedures and manufacturer's quality assurance system identified on this statement, (2) conforms to the manufacturer's design data, (3) was ground and flight tested successfully [N/A for kit], and (4) is in a condition for safe operation [N/A for kit]. Additionally, at the request of the FAA the manufacturer will provide unrestricted access to its facilities, and will make available to any interested person the aircraft's operating instructions, maintenance and inspection procedures, and flight training supplement.

I hereby certify that all statements and answers provided by me on this form are complete and true to the best of my knowledge, and I agree that they are to be considered part of the basis for issuance of any FAA certificate.

Name: : Irving M Himm	Signature: *I. M. Himm*	
Title: President ACME Co. LLC		Date 09/10/2011
Name: Joseph Doaks	Signature: *Joe Doaks*	
Title: U.S. Distributor, Authorized Manufacturer's Flight Testing		Date 10/23/2011

FAA Form 8130-15 (XX-XXXX)

Figure 4-17. Sample FAA Form 8130-15, Light-Sport Kit-Built Aircraft Statement of Compliance

Form Approved
O.M.B. No. 2120-0690

U.S. Department of Transportation
Federal Aviation Administration

Light-Sport Aircraft / Kit Statement of Compliance

INSTRUCTIONS - Print or type. If additional space is required, use an attachment. Present original to an authorized FAA Representative. Retain this form in the aircraft's permanent records.

1. Manufacturer Name	2. Manufacturer Address *(street, city, state, zip)*			
Express Works Ltd.	22 Twain, Goofballia, Lahlah Prefecture, 0U812			
3. Country of Manufacture	4. Date of Manufacture *(mm/dd/yyyy)*	5. Aircraft Serial No.		
Czech Republic	10/23/2011	EALSA-0102		
6. Aircraft Make	7. Aircraft Model	8. Max. Take-off Weight	9. V_H	10. V_{S1}
Express	Terradon Plus	780 lbs	80 KCAS	30 KCAS

Check applicable items: ☐ First of Make or Model ☐ Aircraft (§21.190) ☒ Kit (§21.191(i)(2)) ☐ Operation on Water

☐ Airplane ☐ Powered Parachute ☒ Weight-Shift-Control ☐ Glider ☐ Lighter-Than-Air ☐ Gyroplane

FAA Applicable Accepted Standard(s) *(with Dash Number)*	**Manufacturer's Documentation** *(with Revision and Issue Date)*
11. Design and Performance ASTM Standard F2317/F2317M-10 ASTM Standard F2626-07	12. Design and Performance EW Design Package 01082009-1, N/C, 02/14/2010
13. Required Equipment ASTM Standard F2457-05	14. Required Equipment Listing Terradon Plus Listing-Rev C2., 03/17/2010
15. Quality Assurance ASTM Standard F2448-04	16. Manufacturer's Quality Assurance System Express Works QA manual, Rev H, 04/01/2010
17. Production Acceptance Tests ASTM Standard F2447-05 ASTM Standard F2506-10	18. Manufacturer's Production Acceptance Tests PWATP.001, 05/05/2011
19. Maintenance & Inspection Procedures ASTM Standard F2483-05	20. Aircraft Maintenance and Inspection Procedures Terradon Plus Maintenance Manual, Rev 10, 06/14/2011
21. Continued Airworthiness ASTM Standard F2425-05a	22. Manufacturer's Continued Airworthiness System Terradon Plus QA Manual, Rev 10, 06/14/2011
23. Manufacturer's Assembly Instructions ASTM Standard F2563-06 ASTM Standard F2447-05	24. Manufacturer's Assembly instructions (LSA Kit) Terradon Plus Assembly and Test Procedures, 07/04/2011 Terradon Plus Break-in & Inspection Checklist, 07/04/2011
25. Powerplant or Motor System ASTM Standard F2339-06	26. Powerplant or Motor System EW Design Package 01082009-1, N/C, 02/14/2010 EW Manufacturing PCS.02, Rev C, 09/05/2011
27. Flight Training Supplement ASTM Standard F2457-05	28.Aircraft Flight Training Supplement EW Flying Book, 8th English Edition,09/11/2011
29. Pilot's Operating Handbook/Aircraft Operating Instructions ASTM Standard F2457-05	30. Pilot's Operating Handbook/Aircraft Operating Instructions EW Flying Book, 8th English Edition,09/11/2011

Comments *(additional statements may be stated here or attached)*
Express Works Ltd.Terradon Plus aircraft serial number EALSA-0003, N45EW was certificated in U.S. special light sport category on 09/28/2011. The aircraft / Kit was manufactured in a country that the United States has a bilateral airworthiness agreement concerning airplanes and is eligible for an flight authorization, or similar certification in its country of manufacturer.

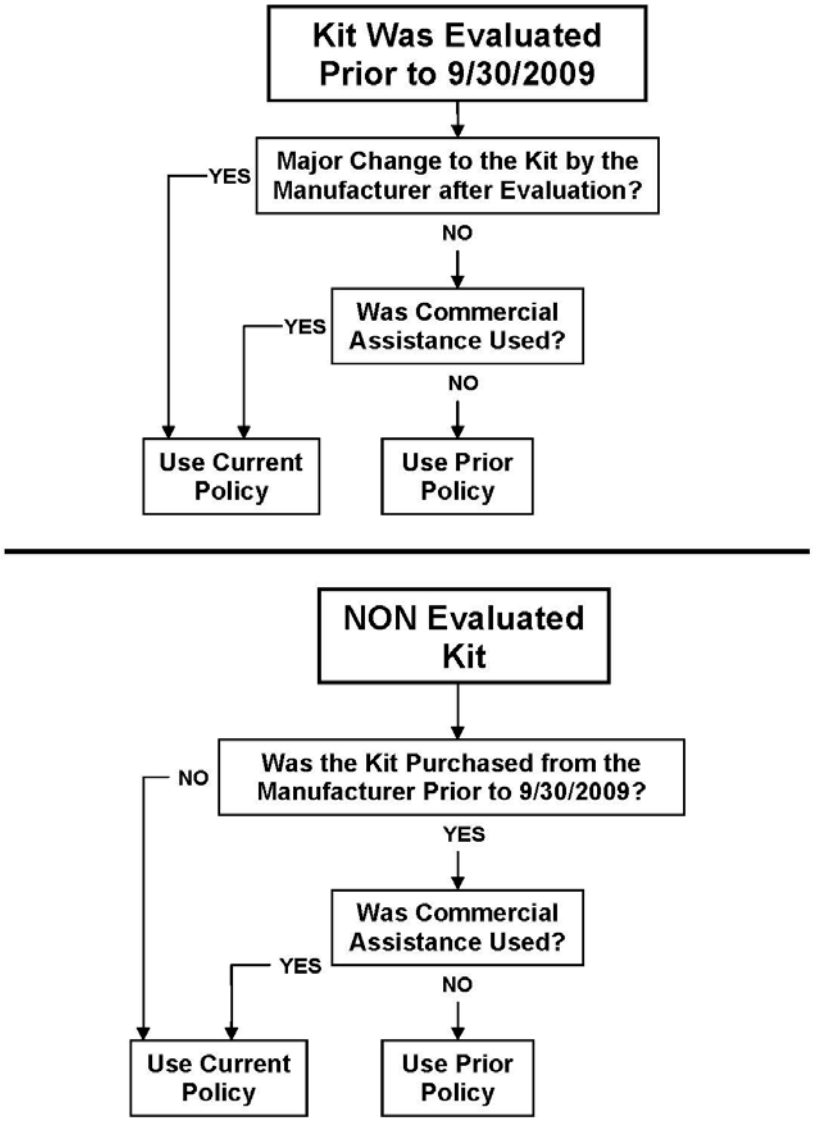
CERTIFICATION: CERTIFICATION: I hereby certify that aircraft/kit serial number EALSA-0102 as equipped, complies with the Title 14 of the Code of Federal Regulations part 1, Definitions and Abbreviations, § 1.1 definition for light-sport aircraft, and the applicable portions of the consensus standards identified on this statement of compliance for U.S. airworthiness certification. The manufacturer will monitor and correct safety-of-flight issues through the issuance of safety directives and the manufacturer's continued airworthiness system to support the aircraft throughout its life. This aircraft/kit (1) was manufactured following the consensus standards procedures and manufacturer's quality assurance system identified on this statement, (2) conforms to the manufacturer's design data, (3) was ground and flight tested successfully [N/A for kit], and (4) is in a condition for safe operation [N/A for kit]. Additionally, at the request of the FAA the manufacturer will provide unrestricted access to its facilities, and will make available to any interested person the aircraft's operating instructions, maintenance and inspection procedures, and flight training supplement.

I hereby certify that all statements and answers provided by me on this form are complete and true to the best of my knowledge, and I agree that they are to be considered part of the basis for issuance of any FAA certificate.

Name: Igor Lubner	Signature: Igor Lubner	
Title: Director of Quality, Express Works Ltd.		Date 10/23/2011
Name:	Signature:	
Title:		Date

FAA Form 8130-15 (XX-XXXX)

Figure 4-18. Use of Prior Policy



Notes for figure 4-18:

1. An "evaluated kit" means an FAA-evaluated kit, which may allow an amateur builder to meet the major portion requirement for a Special Airworthiness Certificate in the Experimental Amateur Built category, and be placed on the FAA List of Amateur-Built Aircraft Kits.

2. "Prior policy" means the policy, AC, or checklist in effect before 9/30/2009 (for example, FAA Order 8130.2, AC 20-27, and FAA Form 8000-38). AIR-100 will maintain these documents as part of the web-based reference materials section concerning amateur-built aircraft.

3. "Current policy" means the policy contained in FAA Order 8130.2F (change 4) or later, AC 20-27G or latest revision, and the Amateur-Built Aircraft Fabrication and Assembly Checklist.

4. "Major Change to Kit by Manufacturer" means any change that would affect the allocation of task credit.

5. "Commercial assistance" means to provide assistance with fabricating or assembling amateur-built aircraft for cash, services, or other tender. This does not include one builder helping another without compensation.

6. The manufacturer of a previously evaluated kit that was placed on the FAA List of Amateur-Built Aircraft Kits may request to have the kit reevaluated under the current policy.

Chapter 5. Export Approval Procedures

Section 1. General Information

500. General. This chapter provides policy and procedures for the issuance of export approvals under the provisions of part 21, subpart L, Export Airworthiness Approvals.

a. The requirements of importing countries/jurisdictions (hereafter referred to as "countries") must be met when exporting products or articles from the United States to them. The requirements for a specific country may be found in either a bilateral agreement or a specific document submitted to the FAA for publication that contains import requirements. The FAA website contains a listing of the bilateral agreements as well as a listing of requirements that have been submitted to the FAA by importing countries.

b. "Special requirements" are those administrative requirements that must be satisfied as a condition of shipment at the time of export, for example, the requirement for FAA Form 8130-4, as well as copies of logbooks, flight manuals, and other materials. When a product or article does not meet the requirements of an importing country, the exporter should first prepare a technical description of the specific nonconformities. The FAA should then prepare an accompanying cover letter for direct transmittal to the importing CAA requesting the CAA's acceptance of the nonconformities and a return reply to the FAA before export. The reply from the importing CAA accepting the nonconformities must accompany each application for an Export C of A.

c. It is the responsibility of the exporter, with the assistance of the FAA if needed, to determine whether an importing country's requirements have been met before export. The exporter should indicate whether the import requirements have or have not been met on FAA Form 8130-1. Refer to paragraph 806 of this order for detailed instructions on reviewing and completing FAA Form 8130-1. When an exporter notifies the FAA that a product or article does not meet the requirements of the importing country, the FAA must then obtain a written statement signifying its acceptance from the CAA of the importing country. Requests for acceptance of these products or articles to the CAA of the importing country should be transmitted to and received from authority to authority. The FAA must receive a written statement of acceptance from the CAA of the importing country before export.

d. In addition to a written statement of acceptance from the importing CAA, the items not complied with must be identified in the Exceptions block of the Export C of A. A copy of the written statement of acceptance from the importing CAA must be included with the Export C of A.

e. An FAA export airworthiness approval is not necessary for products or articles being exported to countries for which there is no bilateral agreement or definitive import requirements that have been formally notified to the FAA. A business or contractual agreement between the seller and the purchaser does not constitute or qualify as an authority-to-authority request for an export airworthiness approval. However, the FAA will issue an export airworthiness approval for a product found to conform to its FAA-approved design and in a condition for safe operation. Such an approval would certify compliance with U.S. airworthiness standards only.

f. FAA Form 8130-4 certifies compliance with applicable requirements but *does not constitute authority to operate an aircraft*.

501.-504. Reserved.

Section 2. Export Approvals

505. Eligibility. Any person may apply for an export airworthiness approval. Aircraft are eligible for an Export C of A if they meet the requirements of § 21.329. Aircraft engines, propellers, and articles are eligible for an export airworthiness approval if they meet the requirements of § 21.331.

506. Section 21.325, Export Airworthiness Approvals. This section covers the manner in which aircraft, aircraft engines, propellers and articles are exported. A sample FAA Form 8130-4, Export Certificate of Airworthiness, is shown in figure 5-1 of this order.

a. Unassembled Aircraft. All new aircraft presented for export approval must be completely assembled and flight tested. Because compliance with the PC rules ensures conformity with the approved type design, aircraft manufactured under a PC are exempt from this requirement. If these aircraft are shipped unassembled, the exporter must furnish to the importer the manufacturer's assembly instructions and the FAA-approved flight test checkoff form. Care should be taken to ensure the importing country/jurisdiction has no special requirements that prohibit importing unassembled aircraft.

b. Products Located in Countries Other Than the United States. Section 21.325(c) permits the issuance of export approvals for used aircraft, aircraft engines, and propellers located in other countries. The applicable field office is responsible for determining whether conducting any necessary FAA inspections and issuing these approvals would create an undue burden on the FAA.

c. Date of Issuance of an Export Airworthiness Approval. The date of issuance of an export airworthiness approval is the date the product was inspected by the FAA, found to comply with the applicable requirements, and determined to be airworthy.

507. Section 21.327, Application. Chapter 8 of this order provides instructions for filling out FAA Form 8130-1, Application for an Export Certificate of Airworthiness. Part I of the form must be completed for aircraft. Aircraft engines, propellers, and articles do not require a written application. In this case, an oral application or request should be made to the FAA.

508. Issuance of FAA Form 8130-4, Export Certificate of Airworthiness, for Aircraft (§ 21.329).

a. An Export C of A may be issued only for *complete* aircraft shown by the applicant to meet the applicable requirements specified under § 21.329. Aircraft that are exported disassembled are considered complete aircraft.

Note: Section 21.329 permits the issuance of an Export C of A for new or used aircraft. A used U.S.-manufactured aircraft that is foreign-owned and located in the United States would be eligible for an Export C of A subject to compliance with the other requirements of part 21, subpart L.

b. Under the provisions of this section, new or used aircraft manufactured under a TC or PC do not require a standard airworthiness certificate or a special airworthiness certificate in the restricted or primary category to be issued before export, but are required to meet the requirements for such a certificate. Aircraft not manufactured under a TC or PC are required to possess a valid standard airworthiness certificate, or a special airworthiness certificate in the restricted or primary category. Aircraft not meeting the requirements for a standard airworthiness certificate, or a special airworthiness certificate in the restricted or primary category, are not eligible to receive an Export C of A unless the importing country accepts the aircraft in accordance with § 21.329(b).

509. Issuance of FAA Form 8130-3, Airworthiness Approval Tag, for Engines, Propellers, and Articles (§ 21.331). Export airworthiness approvals for aircraft engines, propellers, and articles are issued using FAA Form 8130-3. Instructions for completing FAA Form 8130-3 are found in FAA Order 8130.21, *Procedures for Completion and Use of the Authorized Release Certificate, FAA Form 8130-3, Airworthiness Approval Tag*.

510. Responsibilities of Exporters. Remind the exporter that they must comply with § 21.335. Although not specifically described in the regulations, when exporting an unassembled aircraft, advise the exporter that they should forward the manufacturer's assembly instructions and an FAA-approved flight test checkoff form to the importer.

511. Determination of "New" and "Used" Products or Articles.

a. The regulations do not define "new" or "used" products or articles. There should be no problem in making this determination with uninstalled aircraft engines, propellers, or articles, because any time-in-service makes them used.

b. An aircraft may be considered new as long as ownership is retained by the manufacturer, distributor, dealer, or their trustee; if there is no intervening private owner, lease, or time-sharing arrangements; and if the aircraft has not been used in any pilot school and/or air taxi operation. An aircraft is still considered new regardless of the operating time logged by the manufacturer, distributor, or dealer when the following apply:

(1) The aircraft is built from spare and/or surplus articles, even though the articles may be used as well as new, and has been operated under a special airworthiness certificate only for the purpose of conducting production flight tests.

(2) The aircraft has been maintained in accordance with the overhaul provisions of part 43, as applicable.

(3) The aircraft has remained under the operational control of the manufacturer, distributer, or dealer.

512. Preparation of Export C of A. Upon determining that the product is satisfactory, FAA Form 8130-4 (Government Printing Office (GPO) pad only) will be prepared in duplicate. The make, model, and serial number of all installed engines and propellers must be included on the form.

a. If the aircraft has been examined and found to be nonconforming with the FAA type design or the import type design, or if the special import requirements have not been met, the Export C of A should not be issued until either—

(1) The applicant corrects the nonconformities, or

(2) The FAA obtains a written statement from the CAA of the importing country signifying its acceptance of the product with the nonconformities as listed. Requests for acceptance of nonconformities to the importing country CAA should be transmitted to and received from authority to authority. The U.S. exporter should first prepare a technical description of the nonconformities to the type design or specific nonconformities related to other special importing requirements. The FAA should then prepare an accompanying cover letter for direct transmittal to the importing CAA requesting the CAA's acceptance of the nonconformities and a return reply to the FAA before export. Electronic mail may be used to expedite this process as long as the FAA can confirm that the required statement is sent by authorized personnel within the importing CAA.

> **Note:** For countries with which the United States has a BASA, instructions for transmittal of requests for acceptance of nonconformities are contained in the IPA section titled "Export Certificate for Airworthiness Exceptions." For BAA countries, the requests for acceptance of nonconformities should be directed to the importing CAA's appropriate contact identified on the AIR-40 "Certification Authorities Contact List." For all non-bilateral countries, if an appropriate recipient and address is unknown, AIR-40 should be contacted directly for assistance.

(3) If a written statement of acceptance is received by the FAA from the importing CAA, the nonconformities should be listed on the Export C of A under "Exceptions," with a reference to the importing CAA's written statement of acceptance (for example, letter by subject and date, facsimile). A copy of the written statement of acceptance from the importing CAA must then be attached to the Export C of A. Other items not related to the type design but failing to meet the importing country's requirements will be attached to the Export C of A. The completed Export C of A and a copy of the importing CAA's letter, facsimile, or other such document, should be provided to the exporter, and the product may then be released for export. The original statement of acceptance (for example, letter or facsimile) from the importing CAA should be submitted to AFS-750 with the appropriate export certification documentation required by paragraph 807 of this order.

b. When other than a domestic U.S.-manufactured product is being exported to a third-party country with which a bilateral agreement is in effect, the following statement will be inserted on the Export C of A under Exceptions: "This [insert product] was not manufactured in the United States and this certificate is not issued pursuant to the bilateral agreement providing

for the reciprocal recognition of airworthiness certificates between the United States and the government of [name of country] which has stated its willingness to accept this certificate under these conditions, as indicated in their communication, reference _____, dated _____."

> **Note:** The above statement is not applicable if the bilateral agreement provides for "third-party" acceptance of airworthiness from an importing country/jurisdiction that is not the State of Manufacture.

c. The Export C of A is an official U.S. Government document issued to other countries. All entries must be typewritten and no erasures or strikeovers are permitted. The original and duplicate copy of the certificate must be signed. The original will be given to the applicant or applicant's representative, together with those documents required with the aircraft. Provisions should be made to preclude the Export C of A from becoming mutilated in transit.

d. The following instructions apply to preparation of the Export C of A when temporary installations, such as provisions for extra fuel or navigational equipment, have been made for the purpose of export delivery:

(1) If the Export C of A is issued *after* the installation has been made, either by the manufacturer or by other persons, the following statement or equivalent should be inserted under Exceptions: "A temporary [insert type of installation] has been installed in this aircraft in conformity with [insert drawing numbers, or other data to which conformity was shown] to facilitate its delivery flight. This certificate is valid when the temporary installation is removed." Copies of all referenced drawings and data should accompany the original Export C of A when it is submitted to the applicant or the applicant's representative.

(2) If the Export C of A is issued *before* making the temporary installation, such as at the manufacturer's plant, and the aircraft is then flown to another location for installation of the temporary equipment, the Export C of A should reflect the configuration of the aircraft at the time the certificate was issued. It then becomes the responsibility of the exporter and importer to secure the installation documents or data required by the CAA of the country of import. The U.S. Export C of A may not be amended, reissued, or revalidated after original issuance.

e. If there are no exceptions, type the word "None" in the Exceptions block. If additional information is to be provided, it is permissible to type in the words "Additional Information" in the Exceptions block. If the importing country has notified the FAA that it wishes to have a conforming statement to its approved design, a statement similar to the following example must be included: "This aircraft conforms to [insert importing country/jurisdiction] approved type certificate number [insert number]." The applicable IPA may have specific instructions for the conforming statement.

f. The entries at the bottom of the form must be completed as follows:

(1) Signature of Authorized Representative. The name and FAA authority of the person signing the form should be typed adjacent to or under the signature with the signature signed in permanent blue or black ink on the original and copy(s).

(2) Date. Enter the date the inspection of the aircraft was completed.

(3) District Office or Designee Number.

(a) An ASI must enter the district office designation.

(b) An individual designee must enter the letters DMIR/DAR and the designation number.

(c) An ODA must enter the name of the company, "ODA," and their ODA number.

513. Approval of Modifications. In many instances, an aircraft that conforms to the type design may be modified before export, in accordance with the purchaser's requirements. The responsibility for approval and recording of such modifications primarily would be dependent upon the registration status of the aircraft. The following guidelines should be used in issuing Export C of A for modified aircraft:

a. If the aircraft is modified while under U.S. registry, the applicable rules in part 21 or part 43 may apply. Depending on whether any airworthiness certificate had been issued, any necessary test flying would require the issuance of an experimental certificate. The Export C of A would not require any listing of exceptions, because the aircraft would meet the appropriate FAA standards, whether the Export C of A is issued before or after the FAA-approved modifications.

b. If the aircraft is modified after it has been removed from the U.S. registry, approval of the modifications becomes the responsibility of the CAA of the country of registry or intended registry. The applicant or exporter is responsible for obtaining the approval. Any test flying that may be necessary would require the issuance of an SFA. The Export C of A would require no listing of exceptions if the aircraft conformed to the type design before the modifications. However, if the Export C of A is issued after the aircraft is modified, reference to the documentary evidence of non-U.S. approval should be shown under Exceptions.

514. Export Certificate Number Assignment Card.

a. Aeronautical Center Form 8050-72, Export Certificate Number Assignment Card (figure 5-3 of this order), is a serial-numbered card used to facilitate the identification and recording of the official export files in Oklahoma City and must be controlled. These cards will be furnished by AFS-750 when requested by the regional or directorate offices. The cards will be distributed to, and controlled at, the district offices.

b. This card is to be completed by the FAA from the information submitted in the application, ensuring the identity of the aircraft and the application agree. Insert the card serial number on the application, FAA Form 8130-1, and on FAA Form 8130-4.

c. Corrections may be made and information erased on this card if necessary. For example, if the card is completed for an aircraft to be exported, and the aircraft is then not exported, the information on the card may be erased and the card used for another aircraft.

Note: District offices will provide FAA designees with a supply of these cards as required. Regional/district offices must establish a control system and internal audit procedures to track and ensure accountability of these forms.

515. Routing and Processing of Export Files. After the issuance of FAA Form 8130-4, the ASI or designee must complete part III of FAA Form 8130-1. All files, including those processed by designees must be spot checked by the geographically responsible district office before sending them to AFS-750. A spot check will be indicated by the signature of the supervising ASI in permanent blue or black ink above the typed name. The district or regional office number and date must be entered in the boxes. The documents specified in paragraph 807 of this order, including special export files processed under § 21.339, are to be forwarded promptly to AFS-750 as the final step in the certification process.

516. Issuance of Export C of A for Aircraft Type Certificated in Multiple Categories. To retain eligibility for issuance of an Export C of A as a standard aircraft after having been operated in the restricted category, the following items apply:

a. While being operated in the restricted category, any changes made to the aircraft that are to be retained when in normal category operation, or any operations that are outside of the standard category operating limitations, must be approved in accordance with the regulations and procedures applicable to an aircraft having a standard airworthiness certificate.

b. If the TCDS for an aircraft includes both standard and restricted category, and the maximum gross weight and/or other operating limitations for the restricted category are higher than that for standard category, the aircraft is *not* eligible for issuance of an Export C of A as a standard aircraft, after having been operated in the restricted category, unless—

(1) The TCDS specifically states that the aircraft is eligible for operation in the standard category after having been operated at the limitations applicable to the restricted category; or

(2) If the TCDS does not have such a note or other reference, the operations outside of the standard category operating limitations, including increased gross weight, had been approved as appropriate for an aircraft having a standard airworthiness certificate.

517. Issuance of Export C of A for Restricted Category Aircraft. The following comment will be included under Exceptions: "The above is a restricted category aircraft. This aircraft has not been determined to meet the international standards concerning the airworthiness of aircraft as provided for in Annex 8 to the Convention on International Civil Aviation."

518. Controversial Information. If, for any reason, the previously listed information results in a controversy or is contrary to existing requirements, the exporter should be advised that the issue is to be settled between the exporter, the importer, and the CAA of the importing country.

Figure 5-1. Sample FAA Form 8130-4,
Export Certificate of Airworthiness

The United States of America
Department of Transportation
Federal Aviation Administration
Washington, D.C.

No. _____

Export Certificate of Airworthiness

This certifies that the product identified below and particularly described in Specification(s)[1] of the Federal Aviation Administration, Numbered _____ _____has been examined as of the date of this certificate, is considered airworthy in accordance with a comprehensive and detailed airworthiness code of the United States Government, and is in compliance with those special requirements of the importing country filed with the United States Government, except as noted below. The certificate in no way attests to compliance with any agreements or contracts between the vendor and purchaser, nor does it constitute authority to operate an aircraft.

Product:

Manufacturer:

Model:

Serial No:

New: Used:

Country to which exported:

Exceptions:

_____
Signature of Authorized Representative

_____ _____
Date *District Office or Designee Number*

[1] For complete aircraft, list applicable specification or type certificate data sheet for the aircraft, engine, and propeller. Applicable specification or type certificate data sheet, If not attached to this export certificate, will have been forwarded to the appropriate governmental office of the importing country.

FAA Form 8130-4 (04-11) Supersedes Previous Edition

Figure 5-2. Sample FAA Form 8130-1, Application for Export Airworthiness Approval (Face Side)

Form Approval OMB No. 2120-0018 XX/XX/XX

U.S. Department of Transportation Federal Aviation Administration	**Application for Export Certificate of Airworthiness**	Export Certificate No.

INSTRUCTIONS – This application is to be submitted to an authorized FAA representative (one copy) when the product(s) and/or article(s) to be exported is (are) presented for inspection. Use Part I for products and Part II for articles. For complete aircraft, execute items 1 through 11, as applicable. For engines and propellers, omit item 5A. Part III is for FAA use only.

Part I – Application for Export Certificate of Airworthiness (Complete items 1-11)

1. Application is made for an export certificate of airworthiness to cover the product(s) described below which (are):
☐ *NEW* ☐ *USED*

2. Name and address of exporter	3. Name and address of foreign purchaser	4. Country of destination

5. Description of product(s)

Type (a)	Make and Model (b)	Identification No.	Serial Nos. (c)	FAA TC or Spec. No. (d)	Operating Time (Hours) (e)	
					Since Overhaul	Total
A. AIRCRAFT						
B. ENGINES						
C. PROPELLERS						

6. Does the product comply with all applicable Federal Aviation Regulations, Airworthiness Directives, and other FAA requirements?
☐ **YES** ☐ **NO *(Explain in "Remarks")***

7. Have applicable special requirements of the importing country been complied with?
☐ **YES** ☐ **NO *(Explain in "Remarks")***

8. Date title passed or is expected to pass to foreign purchaser:

9. For overseas shipment, preservation and packaging methods used to protect product(s) against corrosion and damage *(List Spec. No. or Title)*:

Effective duration of above methods:

10. Remarks

11. EXPORTER'S CERTIFICATION – The undersigned certifies that the above statements are true and that the product(s) described herein is (are) airworthy and in a condition for safe operation except as may be noted under item 10 "Remarks" above.

Signature of applicant or authorized representative	Title	Date

FAA Form 8130-1 (04-11) Supersedes Previous Edition NSN: 0052-00-024-9005

Figure 5-2. Sample FAA Form 8130-1, Application for Export Airworthiness Approval (Reverse Side)

Part II – Application for Approval of Articles (Complete items 12-20)

12. Name and address of exporter	13. Name and address of foreign purchaser	14. Country of destination

15. Articles are eligible for installation on _____	Make and model of product	FAA Spec. No. or TC

16. The articles are *(Check One)* → ☐ ***NEW*** ☐ ***USED***

17. The articles are described *(Check One)*

☐ Below by name, part number, and quantity ☐ On the attached invoice or packing sheet by name, part number and quantity

Invoicing/packing sheet No.

Name (a)	Part number (b)	Quantity (c)

18. Have applicable special requirements of the importing country been complied with? ☐ ***YES*** ☐ ***NO (Explain in item 10 "Remarks")***

19. Preservation and packaging methods used to protect articles against corrosion and damage *(List Spec. No. or Title)*:

Effective duration of above methods:

20. Exporters Certification – I certify that the foregoing statements are true and that the articles described herein are airworthy, conform to FAA approved design data, and are in a condition for safe operation except as may be noted in item 10, "Remarks".

Signature of applicant or authorized representative	Title	Date

Part III – Approval *(FOR FAA USE ONLY)*

21. It is considered that the product(s) and/or articles described in Part I or Part II is (are) airworthy and conform(s) to pertinent requirements except as noted in item 10. *(Check One)* → ☐ Part I ☐ Part II

Signature	Number	Date

(Check one) → ☐ ODA ☐ DMIR ☐ DAR ☐ FAA Inspector

22. Give quantity of approval tags, FAA Form 8130-3, issued for the articles described in Part II. →	Quantity

23. EXPORT FILE SPOT-CHECKED BY:

FAA Supervising Inspector	D.O. No.	Date

FAA Form 8130-1 (04-11) Supersedes Previous Edition *U.S. Government Printing Office: 1996 – 405-552/45303 NSN: 0052-00-024-9005

Figure 5-3. Aeronautical Center Form 8050-72, Export Certificate Number Assignment Card

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION **EXPORT CERTIFICATE NUMBER ASSIGNMENT CARD**		**CERTIFICATE** **Nº E 244100** DATE ISSUED	
PRODUCT	MANUFACTURER	EXPORT C OF A TYPE DESIGN CONFORMITY ☐ EXCEPTIONS LISTED ☐ NO EXCEPTIONS CHECK ONE	
MODEL	SERIAL NO.*f		
EXPORTER			
FOREIGN PURCHASER			
ADDRESS			
IDENTIFICATION MARK DISPLAYED-U.S.-FOREIGN			
EXPORT PROCESSED BY	SIGNATURE-AUTHORIZED REP.	AGENCY REPRESENTED	AGENCY OR DESIGNEE NO.

AC Form 8050-72 (10-78)

* Indicate additional serial numbers on reverse side.

Chapter 6. Import Procedures

Section 1. General Information

600. General. This chapter provides guidance and procedures relating to U.S. airworthiness certification and approval of imported products. This includes aircraft, aircraft engines, propellers, and articles imported from other countries/jurisdictions with which the United States has a bilateral agreement.

a. Non-U.S.-manufactured aircraft and related products must be accompanied by one of the following when being imported to the United States for FAA airworthiness acceptance:

(1) An Export C of A, or

(2) A certifying statement issued by the CAA of the State of Manufacture, or by the exporting CAA in the case of a third country, as addressed in paragraph 605 of this order.

b. Any deviations from the FAA-approved design must be noted on the certifying statement. Any deviations must be resolved by the installer before the product is eligible for installation on any U.S.-registered aircraft or product thereof.

c. The importing document for products or articles issued from another country will contain essentially the same information as FAA Form 8130-3, and will be signed by a person or organization authorized by the CAA of the exporting country.

d. FAA airworthiness approvals for civil aeronautical products imported to the United States are processed in the following manner:

(1) Issuance of U.S. airworthiness certificates for completed aircraft are processed in accordance with paragraph 603 of this order.

(2) Aircraft engines, propellers, and articles are considered to meet the requirements of 14 CFR when accompanied by certification from the appropriate CAA. Certification confirms the products are of FAA-approved design and are in a condition for safe operation as outlined in paragraph 610 of this order.

e. The FAA requirements for the approval of civil aeronautical products imported to the United States are set forth in the following regulations:

(1) Part 21, subpart H, §§ 21.183(c) and 21.185(c) establish the regulatory requirements for U.S. airworthiness certification of new imported aircraft. The primary basis for airworthiness certification of used imported aircraft is § 21.183(d). New imported aircraft, type certificated under a § 21.21 TC and manufactured under license by a PAH in a country with which the United States has a bilateral agreement, are no longer entitled to a standard airworthiness certificate under the provision of § 21.183(d). The basis for airworthiness certification of these aircraft is § 21.183(a) or (b).

(2) Part 21, subpart N, Acceptance of Aircraft Engines, Propellers, and Articles for Import, establishes the procedural requirements for acceptance of aircraft engines, propellers, and articles manufactured outside the United States.

(3) Part 21, subpart O, Technical Standard Order Approvals, establishes procedures for TSO products. Section 21.621 covers "letter of TSO design approval" for import articles.

f. An Export C of A, or another certifying statement, issued by a CAA, assists in FAA airworthiness certification of imported products. This export certificate does not constitute an "airworthiness certificate" within the meaning of 49 U.S.C. 44704(d) or 49 U.S.C. 44711(a)(1). However, issuance of an Export C of A or other certifying statement does constitute original certification.

g. Modifications or repairs made to an aircraft or related product subsequent to export certification by another CAA may invalidate that certification unless the modifications or repairs are approved by the FAA.

601.-602. Reserved.

Section 2. Import Aircraft

603. Requirements for U.S. Airworthiness Certification. The FAA regulations concerning issuance of airworthiness certificates for U.S.-registered aircraft (new or used) are contained in 14 CFR part 21, subpart H. Most of the requirements apply equally to aircraft that were manufactured outside the United States. Any additional requirements called out in parts 36, 39, 45, 47, 91, and 49 also must be met before an airworthiness certificate may be issued. These include the following:

a. U.S. Registration. The aircraft must be U.S. registered, and the nationality and registration markings applied, before a U.S. airworthiness certificate may be issued. Because these are statutory requirements, the FAA cannot issue an exemption from this requirement. U.S. registration and evidence of deregistration from the exporting country are required before the issuance of a U.S. airworthiness certificate.

b. Product Identification. Before the issuance of a U.S. airworthiness certificate, the aircraft must have an ID plate in accordance with § 21.182, and must meet the requirements of part 45, subpart B, Identification of Aircraft and Related Products.

c. Noise and Emissions Requirements. In addition to meeting the airworthiness standards, an aircraft must meet the noise standards of § 21.183(e) or § 21.185(d); or part 36, Special Federal Aviation Regulation (SFAR) 41, or part 91, subpart I, Operating Noise Limits, as applicable.

d. Approved Flight Manuals, Markings, and Placards. The aircraft must be accompanied by an approved flight manual in the English language as identified on the FAA TCDS. Also, the aircraft must have the flight manual, the appropriate markings and placards in the English language as specified in the FAA TCDS, or other approved data, as required by § 91.9.

e. Logbooks and Maintenance Records. Aircraft must be accompanied by the logbooks and maintenance records as specified in § 91.417 to determine the status of required inspections, life limits, and AD compliance for the airframe, engine(s), propeller(s), rotor(s), and articles of an aircraft.

f. Aircraft Location. A U.S. airworthiness certificate will not be issued to an aircraft located outside the United States unless the FAA finds no undue burden in administering the applicable regulations. Procedures have been established to use the services of the CAA of the State of Manufacture. For issuance of a U.S. standard airworthiness certificate for new aircraft manufactured outside the United States, refer to appendix D to this order. Applicants for airworthiness certification should consult with the FAA before making any firm commitments to determine if certification is possible.

604. Application.

a. Application for a U.S. airworthiness certificate must be made on FAA Form 8130-6 by the registered owner, or an agent who has an LOA from the registered owner.

b. When the applicant has completed and signed the application, it should be submitted to the certification office, along with the CAA's Export C of A.

c. Approved flight manuals, logbooks, and maintenance records will be made available for examination by the FAA, upon request.

605. Airworthiness Determination.

a. In all cases, the FAA is required by 49 U.S.C. to make a finding that the aircraft conforms to an FAA-approved type design and that it is in a condition for safe operation before the FAA issues an airworthiness certificate for that aircraft. The FAA may base its findings, wholly or partially, on the export certification document (for example, an Export C of A) issued by another CAA, provided a bilateral agreement exists that covers the aircraft type (for example, rotorcraft).

b. 14 CFR 21.183(c), 21.184(b) and 21.185(c) provide that an import aircraft type-certificated under the procedures of § 21.29 is entitled to a U.S. airworthiness certificate if the CAA of the State of Manufacture certifies, and the FAA finds, that the aircraft conforms to its FAA-approved type design and is found to be in a condition for safe operation.

c. A CAA certification must be made by issuance of an export certification document that contains the certification statement noted on the corresponding FAA TCDS, or that certifies that the aircraft meets its FAA-approved type design and is in a condition for safe operation.

d. The United States has bilateral agreements with certain countries which provide for the import of products from a country other than the State of Manufacture. This is known as a "third-country provision." In these instances, the applicant for a U.S. airworthiness certificate may show compliance with the requirements of § 21.183(c) by submitting a statement from the CAA that certifies that the aircraft conforms to the U.S. type design and that it is in a condition for safe operation. The statement must be accompanied by the original or a certified copy of the

Export C of A issued by the CAA of the State of Manufacture. Configuration variations, modifications, and major repairs that are not FAA-approved must be identified and approved, or the differences resolved, before the aircraft is accepted by the FAA. The application for a U.S. airworthiness certificate should cite § 21.183(d) or § 21.185(b) as the basis for certification. The procedures outlined in this paragraph also may apply where the bilateral agreement with the exporting country does not contain a third-country provision when the Export C of A issued by the exporting CAA is endorsed by the CAA of the State of Manufacture.

e. The bilateral agreements are summarized on the FAA website at http://www.faa.gov/aircraft/air_cert/international/import_aw_approval/.

f. Applicants should be cautioned that it may be impracticable to obtain a U.S. airworthiness certificate for an aircraft operated under the registry of another country. Applicants must be able to identify repairs and modifications to the aircraft from the date the export certificate was issued until the date of application for the U.S. airworthiness certificate, as well as be able to document the equipment installed and any maintenance accomplished during that period. The applicant must show that the aircraft has remained in or has been returned to its FAA-approved type design and is in a condition for safe operation. This may involve extensive inspections accomplished by designees, the CAA of the State of Manufacture, the aircraft manufacturer, repair stations, etc., before a U.S. airworthiness certificate can be issued.

g. A non-U.S.-manufactured aircraft originally exported to another country may have an Export C of A issued by the CAA of the State of Manufacture that attests conformance to a design not approved by the FAA. This certificate may be useful in establishing a baseline for showing conformity to the FAA-approved design after modification. In this case, or when the Export C of A may not be available, it is helpful if the applicant obtains a statement from the CAA of the State of Manufacture that certifies that when originally exported from that country, the aircraft met its FAA-approved design and/or notes any differences between the configuration identified in their original export certification and the FAA-approved design. The applicant must obtain the necessary technical data needed to convert the aircraft to its FAA-approved design configuration. This method may involve extensive inspections to be accomplished by designees, the CAA of the State of Manufacture, the aircraft manufacturer, persons authorized under part 43, etc., before the applicant can show conformity to the FAA-approved design. Attempts to obtain a U.S. airworthiness certificate using this method may be in vain; in some instances the applicant ultimately may be unable to obtain the desired U.S. airworthiness certificate.

h. The FAA normally will not issue a U.S. airworthiness certificate for an aircraft manufactured outside the United States when no export certification is available. To be acceptable, aircraft manufactured outside the United States must be controlled under bilateral procedures with assurance of conformity and condition provided by the CAA of the State of Manufacture. Without assurance in the form of an export certificate or a certifying statement from the CAA of the State of Manufacture, there is no practical way for an applicant to show, or for the FAA to find, that the aircraft conforms to the FAA-approved design and is in a condition for safe operation.

i. Inspections by the FAA should be conducted to determine that no changes or modifications have been made, and that the condition of the aircraft has not deteriorated subsequent to export certification by the CAA. Flight testing may be required before issuance of a U.S. airworthiness certificate if the aircraft has been disassembled and reassembled subsequent to export certification by the CAA.

j. When an imported product's export certification document lists exceptions to the FAA type design (for example, modifications, alterations, and major repairs that have had no prior FAA approval), the U.S. importer must resolve the exceptions before final airworthiness certification by either having the exceptions formally approved by the FAA or removing the nonconforming items to establish full conformity to the FAA type design. All exceptions on imported aircraft for which the importer is seeking a standard airworthiness certificate, or a special airworthiness certificate in the primary or restricted category, as applicable, must be resolved by the applicant before final airworthiness certification. For products being imported from a country with which the United States has a bilateral agreement, any exceptions must be coordinated and resolved with the FAA by the exporting CAA before export. This will usually involve coordination between the CAA and the FAA in accordance with the procedures found in the export airworthiness section of the bilateral agreement's implementation procedures. In addition, the FAA should obtain a letter of commitment from the importer to clear the nonconformities before FAA acceptance of any export certification documentation. These coordination actions are necessary to ensure the exceptions are understood and will be resolved before the final U.S. airworthiness certification of the aircraft as applicable. For aircraft engines and propellers, the exceptions are resolved before their subsequent installation and use. However, when no prior coordination between authorities has been undertaken, the MIO of the product-cognizant directorate for the imported product will normally be contacted by the importer for guidance and assistance in processing the exceptions for FAA approval.

606. Airworthiness Certification of Aircraft With Mandatory Continuing Airworthiness Information (MCAI).

a. When an unsafe condition is found to exist in a U.S. type-certificated product that is not currently on the U.S. registry, ACOs may use an alternate procedure concerning the issuance of ADs. Under this alternate procedure each MCAI received will be reviewed to determine whether it meets established criteria for required corrective action. No further action will be taken for an MCAI that does not meet these criteria. An AD will be issued for an MCAI that meets these criteria if there is one or more aircraft of the affected design currently registered in the United States. If no aircraft of the affected design are currently registered in the United States, the geographically responsible directorate may elect to defer publishing any ADs on the MCAIs that meet those criteria until an aircraft of that design becomes U.S.-registered. A list of each MCAI that is deferred will be maintained by the geographically responsible directorate. A statement similar to the following will be found in the Serial Nos. Eligible Product section of the TCDS for an aircraft design on which ADs have not been issued for some or all of the required MCAIs:

> "For issuance of an airworthiness certificate the [airworthiness authority of the State of Design] must certify that the aircraft conforms to the U.S. type design and is in a condition for safe operation. In that regard, [airworthiness authority of the

State of Design] will certify that the aircraft complies with all applicable MCAIs it has issued. Also, the FAA must find that the product conforms to its U.S. type design and is in a condition for safe operation. To make that finding, all actions required by deferred MCAIs must be accomplished in accordance with each MCAI-required compliance time, except as noted on the TCDS. Deferred MCAIs must be included in the operator's airplane maintenance or inspection program to ensure they will be accomplished within the required compliance time. All inspections or modifications required by a MCAI that have surpassed the initial compliance time must be accomplished before issuance of the airworthiness certificate."

b. In some instances, the TCDS also will indicate that certain ADs have been issued for the affected model. Compliance with any applicable AD is required, in addition to compliance with the MCAI.

c. After the first aircraft is U.S. certificated, the geographically responsible directorate will amend the TCDS to list the required MCAIs (formerly found on the responsible directorate's listing). Compliance must be shown before subsequent aircraft can be found to be in a condition for safe operation and issued an airworthiness certificate. The directorate will issue ADs for any subsequent MCAIs that meet the required criteria for corrective action and will not issue any retroactive ADs for any MCAIs listed as effective before the first aircraft being certificated.

d. This alternative procedure also may be used when an aircraft of the affected model previously was registered in the United States, but currently is not.

Note: This procedure is not considered appropriate at this time for other products, for example, engines and propellers, because presently there is no reliable means to ensure none of these products has been imported and installed in U.S.-registered aircraft.

607. Certification Procedures. The procedures identified above generally are common to issuance of all classifications of airworthiness certificates and are consistent with the procedures identified in chapters 3 and 4 of this order. Refer to appendix A to this order for additional guidance on airworthiness certification of used aircraft.

608-609. Reserved.

Section 3. Aircraft Engines, Propellers, and Articles

610. Airworthiness Determination.

a. Section 21.500 provides for the acceptance of aircraft engines or propellers manufactured outside the United States for which a U.S. TC has been issued. These aircraft engines and propellers are considered approved for installation on a U.S.-registered aircraft when a current Export C of A has been issued by the CAA of the State of Manufacture. The Export C of A certifies that the engine or propeller—

(1) Conforms to its U.S. TC and is found to be in a condition for safe operation.

(2) Has been subjected to a final operational check by the manufacturer.

b. Section 21.502 provides for the airworthiness acceptance of articles (essentially replacement/modification articles) manufactured outside the United States under the terms of the specific bilateral agreement. The United States will consider articles imported to the United States for installation on U.S.-registered aircraft to meet all applicable approval requirements when—

(1) The imported articles are covered under the scope of the agreement with that country;

(2) The articles are accompanied by a completed airworthiness document (for example, EASA Form 1) from the exporting CAA;

(3) The airworthiness document certifies that the articles meet the requirements of 14 CFR (for example, § 21.29 or § 21.621); and

(4) The airworthiness document certifies that the articles are eligible for installation on the bilateral country's product exported to the United States.

c. Section 21.621 addresses articles that are covered by an FAA letter of TSO design approval for imports. Neither the FAA letter of TSO design approval, nor the Export C of A issued by the CAA of the State of Manufacture, conveys installation approval. If not already accomplished, installation approval for a TSO article must be obtained, in a manner acceptable to the FAA, at the time of installation. Approval for return to service must be performed by a person authorized in part 43.

d. The various types of export certification documents used by the CAAs include official CAA certificates or authorized release tags, and forms that may be signed by private persons, when so authorized by the CAA. The FAA will accept the various types of certifications, provided they represent a certification from the appropriate CAA attesting that the aircraft engine, propeller, or article being exported conforms to the U.S. type design and is in a condition for safe operation, and they are appropriately endorsed by the CAA or an authorized designee. The CAA of the exporting country must confirm a designee's scope of authority when so requested by the FAA. These certifications serve to comply with the requirements for an export airworthiness approval for the purpose of § 21.500 or § 21.502. In those instances in which the certifying language differs from that stated in this paragraph, the FAA should request a letter from the CAA stating that the language used meets the intent of § 21.500 or § 21.502, as appropriate. The CAA's airworthiness certification documentation is essential for the FAA to determine that the aircraft engine, propeller, or article is acceptable for installation on U.S.-registered aircraft.

611. Identification and Marking.

a. Aircraft engines or propellers to be installed on U.S.-registered aircraft must be identified in a manner specified in § 45.11 with the information specified in § 45.13.

b. Critical articles to be used as spare, replacement, or modification articles on U.S.-registered aircraft, or on engines or propellers to be installed on U.S.-registered aircraft, must be identified with a part number and serial number.

c. Articles approved by an FAA letter of TSO design approval must be marked in accordance with § 45.15, and any additional marking requirements specified in the particular TSO.

d. Articles to be used as spare, replacement, or modification articles on U.S.-registered aircraft must be identified by a part number and the manufacturer's name or trademark. Products manufactured pursuant to part 21, subpart O are not subject to this requirement, because model eligibility is established at the time of installation.

e. Products must be accompanied by maintenance records equivalent to those specified in § 91.417 that reflect the status of required inspections, life limits, etc.

612. Return to Service. Regardless of the existence of an export airworthiness approval, the person authorized to return to service the aircraft, airframe, engine, propeller, or article in accordance with § 43.5 is responsible for determining that the imported product—

a. Has not been modified, changed, or damaged subsequent to the time of export airworthiness approval.

b. Complies with all applicable ADs issued under part 39.

c. Is installed in accordance with FAA-approved design data.

d. Is in a condition for safe operation.

e. Has all of the necessary maintenance documentation available.

613. Special Maintenance Records Consideration. U.S. operators, such as air carriers, air travel clubs, and operators for compensation or hire, certificated by the FAA for operation under parts 121, 125, and 135, are required to have sufficient maintenance data on the aircraft or related product. This enables the operator to integrate the aircraft or related product into its own FAA-approved maintenance program. U.S. operators will have difficulty doing this unless the records are complete and are in the English language, or can be translated into the English language. It is vitally important for operators and potential U.S. operators of imported aircraft, including U.S.-manufactured aircraft, to realize that an FAA airworthiness certificate does not automatically render the aircraft or product eligible for operation. FAA operating requirements may specify the need for maintenance records, additional inspections, tests, and installation of instruments and equipment which are over and above the basic airworthiness certification requirements.

Chapter 7. Special Flight Authorizations (SFA) for Foreign Civil Aircraft

700. General.

a. The navigation of foreign-registered civil aircraft in the United States is permitted under 49 U.S.C. 41703(a). This section is implemented by 14 CFR part 375, Navigation of Foreign Civil Aircraft Within the United States, which sets forth the rules, conditions, and limitations governing the navigation of foreign civil aircraft in the United States. Part 375 also specifies that foreign civil aircraft being operated in the United States must carry current and effective airworthiness and registration certificates issued or rendered valid by the State of Registry. Part 375 also allows the operation of foreign aircraft that do not carry current airworthiness certificates, but that have been issued an SFA by the FAA.

b. Foreign civil aircraft that do not have a current airworthiness certificate issued by the State of Registry require an SFA issued by the FAA in accordance with § 91.715(a). An aircraft registered in a country that is not a member of the ICAO *always* requires an authorization from the Department of Transportation (DOT) and an SFA issued by the FAA before operating in the United States. Inquiries regarding DOT authorization may be referred to—

Department of Transportation
Office of International Aviation
Foreign Carrier Licensing Division
1200 New Jersey Avenue SE.
Washington, DC 20590

Note: A listing of ICAO Member States is contained on the ICAO website at http://www.icao.int/about-icao/Pages/member-states.aspx.

701. Eligibility.

a. General. Section 91.715 is applicable to foreign aircraft that do not have a current airworthiness certificate, or an equivalent to a U.S. standard airworthiness certificate, that indicates that the aircraft complies with a detailed and comprehensive airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation. An SFA is required for an aircraft carrying an airworthiness certificate, flight permit, or similar document issued by the State of Registry that is equivalent to a U.S. special airworthiness certificate.

b. Basic Eligibility. An SFA is required when the following conditions exist:

(1) The aircraft is registered in an ICAO member state but does not have an airworthiness certificate attesting that the aircraft complies with Annex 8 to the Convention on International Civil Aviation requirements, or it has an invalid airworthiness certificate.

(2) The aircraft is registered in a non-ICAO member state regardless of the type of airworthiness certificate issued or its planned operation.

c. Basic Ineligibility. An SFA must not be issued when the following conditions exist:

(1) If the aircraft is of foreign military registry (non-civil) and an SFA is requested, the applicant should be referred to the U.S. Department of State. Such aircraft may enter the United States only with a diplomatic clearance that would be issued solely on a government-to-government, non-commercial basis.

(2) The aircraft is registered in a country that has special overflight approval requirements under the U.S. Department of State Special Interest Flight (SIF) program. For requests involving aircraft identified under the SIF program, the non-U.S. owner/operator, or a U.S. individual or firm acting on behalf of the owner/operator, must request overflight clearance from the U.S. Department of State. The request must include the complete itinerary, schedule, and proposed routing through U.S. airspace. For further information, contact FAA, Air Traffic System Operation, AJR-2.

(3) The aircraft is a Canadian Owner–Maintenance category aircraft. For additional information, refer to FAA Order 8900.1, volume 12, chapter 11, section 1, paragraph 12-648.

702. Blanket SFAs. An SFA may be requested for an operation that will be conducted many times during a given period or for a number of aircraft engaged in the same operation, for example, an export delivery flight. A blanket SFA may be issued when deemed appropriate by the issuing office manager.

703. Application.

a. General. The application for an SFA may be in the form of a letter, email, or fax from the owner or operator. The application should be addressed to the AFS division manager or AIR directorate manager of the FAA region in which the applicant is located, or the region within which the U.S. point of entry is located.

b. Aviation Events. The application may be made to the AFS division manager or AIR directorate manager of the FAA region in which the event is located. Aviation events encompass many different activities. Refer to FAA Order 8900.1 for additional information.

c. SFA for Operation of Canadian-Registered Recreational Aircraft in the United States. Operation in the United States of Canadian-registered amateur-built aircraft or advanced ultralight aeroplanes is permitted by the issuance of an SFA under § 91.715. The SFA must be obtained before operation in the United States is permitted. An SFA may be obtained from the FAA for operation of these aircraft in U.S. airspace by following the instructions on the FAA website at www.faa.gov/aircraft/gen_av/ultralights/sfa.

d. Individual Aircraft Authorizations. An application for an SFA must contain the following information, as applicable, and any other information deemed appropriate by the cognizant FAA field office:

(1) The name and address of the applicant.

(2) The name and address of the aircraft owner.

(3) The purpose for which the SFA is requested, including—

(a) Whether the aircraft will be used as a test aircraft in the development of a U.S. STC and will require flight testing for the purpose of showing compliance with the regulations; and

(b) If flying the aircraft to a base where repairs or maintenance are to be performed, a description of the needed repairs and the operating limitations, if any, assigned by the State of Registry.

(4) The type of airworthiness document, if any, issued for the aircraft by the State of Registry.

(5) Information such as total aircraft time, maintenance status, date of last inspection, type of inspection, and the name and title of the person performing the inspection. This information is necessary to establish that the requested flight(s) will not adversely affect safety.

(6) The make, model, and serial number of the aircraft.

(7) The assigned nationality and registration marks. If applicable, include a valid copy of the registration document issued by the State of Registry and translated into the English language.

(8) The base of operations for the proposed flights and the areas where the flights will be conducted.

(9) The proposed U.S. port of entry and the itinerary while operating in the United States.

(10) The proposed U.S. port of departure and the ultimate destination.

(11) The duration for which the SFA is requested.

e. Blanket Authorizations. An application for a blanket SFA should contain the following information:

(1) The name and address of the promotion sponsor; or the name and address of the manufacturer, when the purpose is for export.

(2) The purpose(s) for which the blanket SFA is requested and the number of signed copies required to meet operating needs.

(3) Enough information to establish that the flights will not adversely affect safety.

(4) For aviation events, the name and address of the owner or operator, make, model, serial number, registration number, type of airworthiness certificate carried, reason why the aircraft does not comply with standard airworthiness requirements, and aircraft maintenance provisions. The listing of owners, pilots, and aircraft participating may be provided separately.

(5) Any other information deemed appropriate by the ASI.

704. Issuance.

a. General. If the aircraft is located in the United States, the local FAA office is responsible for processing the SFA. If the aircraft is not in the United States, the region or directorate having jurisdiction over FAA matters in that country is the office responsible for processing the application.

b. Format. The various formats shown in figures 7-1 through 7-7 of this order must be followed during the preparation of an SFA.

c. Numbering. Each SFA issued must be assigned a number beginning with "01" and prefixed by the appropriate location identifier code of the FAA office, for example, AGL-MKE-FSDO-13-01 or ASW-OKC-MIDO-41-01. If an SFA is extended, based on valid reasons provided by the applicant, a new SFA must be issued using the number assigned to the original followed by the letter "A," for example, AGL-MKE-FSDO-13-01A. In some cases an SFA may require extension more than once. The second extension would still use the original number followed by the letter "B."

d. Control. The FAA issuing office must establish a permanent file for record and must keep at least one copy of each SFA issued. This file serves as a control in assigning sequential numbers to new issuances. An alternate system for control may be used at the office's discretion. The transmittal letter should advise that the applicant is accountable for each signed copy. When authorized to make copies for export purposes, add a limitation requiring the applicant to maintain the following information:

(1) Name and address of the aircraft owner;

(2) Nationality and registration marks displayed on the aircraft;

(3) Make, model, and serial number of the aircraft;

(4) Date the copy is issued for the aircraft; and

(5) Signature of authorized representative.

e. Aircraft Inspection. The aircraft may need to be inspected before issuance of the SFA to ensure it is capable of safe flight. The ASI may make, or require the applicant to make, appropriate inspections or tests considered necessary for safety.

705. Duration. Discretion should be used by the issuing office when determining the duration of an SFA issued for an individual aircraft. For example, if the purpose is one for which delays may be expected, such as in STC projects or extended ferry flights, the office may establish a longer duration than was requested to preclude the need for extensions. In general, the duration of the SFA is as requested by the applicant.

706. Operating Limitations. Because an SFA is issued to cover operation of an aircraft that may not meet the airworthiness standards established by ICAO, appropriate limitations may need to be prescribed to minimize hazards to persons or property. Certain limitations would be applicable for all SFAs issued under § 91.715(b). The special operating limitations for specific operations shown in the examples are not intended to be prescriptive or all-inclusive, and the issuing office may prescribe any limitations deemed necessary in the interest of safety. In certain circumstances, such as a flight for export delivery, no additional limitations may be necessary. The following provides examples of minimum and special limitations for specific operations:

a. Minimum Operating Limitations. The following are applicable to all SFAs issued unless otherwise noted:

(1) A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

(2) You must comply with all limitations imposed by the State of Registry and this authorization.

(3) Persons or property must not be carried for compensation or hire.

(4) This authorization is valid in the United States only.

(5) Upon request, this authorization must be made available to an FAA inspector.

(6) This authorization is valid until [insert expiration date] unless superseded or rescinded.

b. Damaged Aircraft. The minimum operating limitations apply to any aircraft operated under this section. Additional limitations may be prescribed as individual conditions warrant.

(1) Aircraft Located in the United States. The determination that the aircraft has been damaged to the extent that the airworthiness certificate is invalid is the responsibility of the State of Registry. Under Annex 8 to the Convention on International Civil Aviation, the State of Registry may either prohibit further flights of the aircraft until it is restored to an airworthy condition, or may prescribe limitations under which the aircraft would be safe to fly to a base where repairs can be made. In the event the State of Registry requests the FAA to inspect the aircraft on its behalf, the regional office or directorate should arrange for inspection of the aircraft by personnel from the nearest FSDO or MIDO. Any limitations considered necessary because of the inspection must be prescribed as special limitations in addition to the minimum limitations.

(2) Aircraft Located Outside the United States. An applicant with a foreign-registered aircraft needing repair, who wants the repair to be accomplished at a manufacturer or repair facility in the United States, may do so regardless of the country in which the damage was sustained. The State of Registry remains responsible for inspection of the aircraft and for establishing any necessary special operating conditions and limitations.

c. Change in Nationality. This paragraph applies when the C of A for an aircraft has been invalidated by the new State of Registry. If the aircraft complies with U.S. and/or ICAO airworthiness requirements, except for the invalid airworthiness certificate, it may not be necessary to prescribe additional operating limitations. It should be noted that a aircraft need not have a registration certificate issued by the country of the non-U.S. buyer, but must bear the ID marks issued by the State of Registry or intended registry.

d. Flight Testing. The ASI must evaluate the reasons the flight test must be conducted in the United States, the qualifications of the individual or company in the United States who will be primarily responsible for the flight test operations, and the nature of the flight tests. The conclusions reached from that evaluation are an important factor in determining the special operating limitations that must be prescribed in addition to the minimum limitations. The following special operating limitations generally would be applicable, but may be altered or added to as deemed appropriate:

(1) All flight tests must be conducted in compliance with § 91.305. (If the flight tests involve the dropping of materials, for example, water drops to test a new forest fire suppression system, § 91.15 also must be cited in this limitation.)

(2) All maintenance and inspection of the aircraft must be conducted under the direct supervision of qualified personnel holding appropriate licenses issued or rendered valid by the [insert State of Registry] CAA and according to [insert State of Registry] aircraft maintenance requirements.

(3) Except for flight tests conducted according to the terms of this authorization, additional flights within the United States must be limited to those necessary to proceed from [specify origin] to [insert the name of the airport or other area from which the flight test will be conducted], and return to [specify destination] by the most practical direct route.

e. Flight Training of Customers, Employees, or Designees. In most cases, an SFA issued for this purpose would be a blanket authorization issued to an aircraft manufacturer. The following special operating limitations, in addition to the required standard limitations, are worded to indicate that more than one aircraft is involved. If an SFA under this paragraph is issued for a single aircraft, an appropriate change must be made.

(1) Each aircraft operated for customer crew training flights must carry this SFA attached to a statement that includes the name and address of the aircraft owner, the aircraft's assigned nationality and registration marks, and the dates on which the customer crew training flights are scheduled to begin and end. This limitation applies only if a blanket authorization has been issued.

(2) All customer crew training and aircraft maintenance must be conducted under the direct supervision of [insert name of manufacturer] personnel.

f. Ferrying an Aircraft for Export Delivery.

(1) Individual Aircraft Authorizations. The limitations below may be omitted if the aircraft has a valid FAA Export C of A with no major exceptions listed, and is not carrying extra fuel or navigational equipment. If temporary fuel system(s)/equipment are installed and/or the aircraft is to be operated in excess of its maximum certificated takeoff weight, the limitations below must be included as applicable:

(a) Operation in the overweight condition must be conducted to avoid cities, towns, villages, and congested areas, or any other areas where the flights might create hazards to persons or property.

(b) The aircraft must not be operated with temporary fuel system(s) or temporary navigation equipment installed, or at a weight in excess of its maximum certificated takeoff weight, unless approved in writing by the CAA of the State of Registry.

(2) Blanket Authorization. The limitations applicable to an individual aircraft authorization generally apply to a blanket authorization. Because the manufacturer is authorized to issue copies without individual FAA review, the blanket authorization must be worded so any possible situation will be covered by each copy issued. A sample blanket authorization has been developed to show all of the operating limitations that should be prescribed (refer to figure 7-6 of this order).

g. Demonstration or Test. The issuing office should determine that the applicant for an SFA for demonstration has satisfied, as applicable, the items listed in part 91. Persons having an interest in the demonstration, for example, customers, may be carried in an aircraft issued an SFA for demonstration.

Figure 7-1. Sample SFA for the Flight of an Aircraft to a Place Where Repairs or Alterations Are To Be Made

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.:	NE-03-09
Aircraft Make:	Cessna
Aircraft Model:	180H
Serial No.:	18051515
Nationality and Registration Marks:	CF-ABC
Name and address of Registered Owner:	Mr. Richard A. Roe 777 Quebec Street Smithton, Ontario, Canada

Pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715, Mr. Richard A. Roe is hereby authorized to operate the aircraft identified above for the purpose of flying it from Hartford, Connecticut, to Ontario, Canada, for permanent repair of damage incurred during a landing accident at Hartford. A representative of Transport Canada Civil Aviation has inspected the aircraft and found it safe for the intended flight provided that the airspeed does not exceed 130 knots and no passengers are carried aboard the aircraft. All operations must be in accordance with the following restrictions and limitations.

1. A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

2. You must comply with all limitations imposed by the State of Registry and this authorization.

3. Persons or property must not be carried for compensation or hire.

4. This authorization is valid in the United States only.

5. Upon request, this authorization must be made available to an FAA inspector.

6. All flights must be conducted under visual flight rules, day only.

.

Figure 7-1. Sample SFA for the Flight of an Aircraft to a Place Where Repairs or Alterations Are To Be Made (Continued)

7. All flights must be conducted at airspeeds not to exceed 130 knots.

8. This SFA is valid until March 16, 2015, unless superseded or rescinded.

J.A. Smith, Manager
Flight Standards District Office

Issued in Windsor Locks, Connecticut, on March 4, 2015.

Figure 7-2. Sample SFA for the Flight of an Aircraft to a New State of Registry (This Format is Generally Applicable to a Single Aircraft Authorization for Ferry Flights)

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.:	SO-11-01
Aircraft Make:	Beech
Aircraft Model:	D185
Serial No.:	A-23456
Nationality and Registration Marks:	HK-ABC
Name and address of Registered Owner:	Mr. Hernando Restrepo 22 Calle de Presidente Fusagasuga, Colombia

Pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715, Mr. Hernando Restrepo is hereby authorized to operate the aircraft identified above for the purpose of flying from Quebec, QC, Canada, to Fusagasuga, Colombia. The aircraft identified above was under Canadian registry and held a current and valid Canadian airworthiness certificate before its sale to Mr. Restrepo. A current and valid Colombian airworthiness certificate will not be issued until after its entry into Colombia. All operations of the aircraft must be in accordance with the following restrictions and limitations.

1. A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

2. You must comply with all limitations imposed by the State of Registry and this authorization.

3. Persons or property must not be carried for compensation or hire.

4. This authorization is valid in the United States only.

5. Upon request, this authorization must be made available to an FAA inspector.

6. The identification markings assigned to the aircraft by the State of Colombia must be displayed on the aircraft according to that country's applicable requirements.

Figure 7-2. Sample SFA for the Flight of an Aircraft to a New State of Registry (This Format is Generally Applicable to a Single Aircraft Authorization for Ferry Flights) (Continued)

7. This SFA is valid until March 15, 2015, or unless superseded or rescinded.

J.A. Smith, Manager
Portland Flight Standards District Office

Issued in Portland, Maine, on March 2, 2015.

Figure 7-3. Sample SFA for the Purpose of Flight Testing

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.:	ASW-1
Aircraft Make:	McDonnell Douglas
Aircraft Model:	DC-9-11
Serial No.:	12345
Nationality and Registration Marks:	CF-POH
Name and address of Registered Owner:	Canada Air, Montreal, Canada
Name and Address of Agent:	John Doe Company, 21 Blackfoot Drive San Antonio, Texas 78216

Pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715, the John Doe Company is hereby authorized to operate the aircraft identified above for the purpose of conducting flight test(s) required to obtain a supplemental type certificate (STC) covering the installation in the aircraft of General Electric CGY2 turbofan engines. All operations of the aircraft must be in accordance with the following restrictions and limitations.

1. A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

2. You must comply with all limitations imposed by the State of Registry and this authorization.

3. Persons or property must not be carried for compensation or hire.

4. This authorization is valid in the United States only.

5. Upon request, this authorization must be made available to an FAA inspector.

6.. No person may be carried in the aircraft during flight unless that person is essential to the purpose of the flight and has been advised of the contents of this SFA and of the airworthiness status of the aircraft.

Figure 7-3. Sample SFA for the Purpose of Flight Testing (Continued)

7. All flight tests must be conducted in compliance with § 91.305.

8. All flights must be conducted under visual flight rules, day only.

9. All maintenance and inspection of the aircraft must be conducted under the direct supervision of qualified personnel holding appropriate licenses issued or rendered valid by the Canadian Department of Transportation and according to Canadian aircraft maintenance requirements.

10. This SFA is valid until October 4, 2015, or unless superseded or rescinded.

J.A. Smith, Manager
Manufacturing Inspection Office
Rotorcraft Directorate

Issued in Fort Worth, Texas, on September 29, 2015.

Figure 7-4. Sample Blanket SFA for Customer Crew Training

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.: NE-02-43

Pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715 to the Yankee Airplane Company, John Hancock Airport, Boston, Massachusetts 02111, this constitutes authority in lieu of an airworthiness certificate. For the purpose of giving customer crew training to the buyer, its employees, or designees in any aircraft manufactured by the Yankee Airplane Company when the aircraft has been placed under non-U.S. registry, each aircraft operated under this SFA must be operated according to the following restrictions and limitations.

1. Each aircraft operated for customer crew training flights must carry this SFA attached with a statement including the name and address of the aircraft owner, the aircraft's assigned nationality and registration marks, and the dates on which the customer crew training flights are scheduled to begin and end.

2. All customer crew training and aircraft maintenance must be conducted under the direct supervision of qualified Yankee Airplane Company personnel.

3. Customer crew training flights on any one aircraft must be conducted during an interval not to exceed 30 days.

4. Before beginning customer crew training flights with any one aircraft, the Yankee Airplane Company must submit to the local FAA Manufacturing Inspector the information specified in paragraph 1 of this authorization pertaining to that aircraft.

5. The identification markings assigned to the aircraft by the State of Registry must be displayed on the aircraft according to that country's applicable requirements.

6. Persons or property must not be carried for compensation or hire.

7. No person may be carried in the aircraft during flight unless that person is essential to the purpose of the flight and has been advised of the contents of this SFA and of the airworthiness status of the aircraft.

Figure 7-4. Sample Blanket SFA for Customer Crew Training (Continued)

8. This authorization is valid in the United States only.

9. This SFA is valid until superseded or rescinded.

J.A. Smith, Manager
Flight Standards Division
New England Region

Issued in Burlington, Massachusetts, on February 29, 2000.

Figure 7-5. Sample SFA for Export Delivery

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.:	NE-03-59
Aircraft Make:	Piper
Model:	PA 84
Serial No.:	1334
Nationality and Registration Marks:	I-JAB
Registered Owner:	Joseph A. Banco, Via Banco, Rome, Italy

Pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715, Mr. Joseph A. Banco is hereby authorized to operate the aircraft identified above for the purpose of export and delivery from Westfield, Massachusetts, to Rome, Italy. This aircraft is on Italian registry and an airworthiness certificate has not yet been issued.

1. A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

2. You must comply with all limitations imposed by the State of Registry and this authorization.

3. Persons or property must not be carried for compensation or hire.

4. This authorization is valid in the United States only.

5. Upon request, this authorization must be made available to an FAA inspector.

6. No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight and has been advised of the content of this SFA and of the airworthiness status of the aircraft.

7. The aircraft must not be operated with temporary fuel system(s) or temporary navigation equipment installed or at a weight in excess of its maximum certificated takeoff weight, unless approved, by the civil aviation authority (CAA) State of Registry in writing.

Figure 7-5. Sample SFA for Export Delivery (Continued)

8. The kinds of operations authorized are visual flight rules, instrument flight rules, day, and night.

9. This SFA is valid until May 30, 2015, unless superseded or rescinded.

J.A. Smith, Manager
Flight Standards Division
New England Region

Issued in Burlington, Massachusetts, on May 4, 2015.

Figure 7-6. Sample Blanket SFA for Delivering Aircraft for the Purpose of Export Delivery

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.: WP-26-22

This SFA is issued to the John Smith Airplane Company, 711 Water Boulevard, San Diego, California 82101, pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715. A copy of this SFA furnished by the above constitutes authority in lieu of an airworthiness certificate for the purpose of export delivery of aircraft manufactured by that Company. This SFA is applicable to aircraft that are on a non-U.S. registry and have no airworthiness certificate.

1. A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

2. No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight and has been advised of the content of this SFA and of the airworthiness status of the aircraft.

3. The aircraft must not be operated with temporary fuel system(s) or temporary equipment installed, or at a weight in excess of its maximum certificated takeoff weight, unless approved by the civil aviation authority (CAA) of the State of Registry in writing.

4. Persons or property may not be carried in the aircraft for compensation or hire.

5. This authorization is valid in the United States only.

6. The kinds of operations authorized are visual flight rules, instrument flight rules, day, and night.

7. This SFA is valid until December 31, 2015.

J.A. Smith, Manager
Flight Standards Division
Western-Pacific Region

Issued in Los Angeles, California, on January 4, 2014.

Figure 7-7. Sample SFA for the Purpose of Demonstration

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.:	NE-01-31
Aircraft Make:	Hansa
Model:	HFB-320
Serial No.:	1024
Nationality and Registration Marks:	D-CARO
Name and Address of Registered Owner:	Hamburger Flugzeugbau G.M.B.H. 2103 Hamburg Finkenwerder Postfact 109, Germany

Pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715, Hamburger Flugzeugbau G.M.B.H. is hereby authorized to operate the aircraft identified above for the purpose of conducting demonstration flights in the United States. The aircraft has been issued a provisional certificate of airworthiness by the Luftfahrt-Bundesamt and has been shown to meet standards equivalent to those required for provisional certification of a U.S.-registered civil aircraft. All operations of the aircraft must be in accordance with the following restrictions and limitations.

1. A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

2. You must comply with all limitations imposed by the State of Registry and this authorization.

3. Persons or property must not be carried for compensation or hire.

4. This authorization is valid in the United States only.

5. Upon request, this authorization must be made available to an FAA inspector.

6. The identification markings assigned to the aircraft by the State of Registry must be displayed on the aircraft according to that country's applicable requirements.

7. Persons or property must not be carried for compensation or hire.

8. No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight and has been advised of the content of this SFA and of the airworthiness status of the aircraft.

Figure 7-7. Sample SFA for the Purpose of Demonstration (Continued)

9. All flights must be conducted under visual flight rules, day only.

10. This SFA is valid until April 14, 2015, unless superseded or rescinded.

J.A. Smith, Manager
Flight Standards Division
New England Region

Issued in Burlington, Massachusetts, on February 16, 2015.

Figure 7-8. Sample SFA for Participating in Aviation Events

U.S. Department
of Transportation

**Federal Aviation
Administration**

FOREIGN CIVIL AIRCRAFT SPECIAL FLIGHT AUTHORIZATION (SFA)

Authorization No.:	NE-01-31
Aircraft Make:	Aero Vodochody
Model:	L-39C
Serial No.:	1024
Nationality and Registration Marks:	ES-XXX
Name and Address of Registered Owner:	Hamburger Flugzeugbau G.M.B.H. 2103 Hamburg Finkenwerder Postfact 109, Germany

Pursuant to Title 14 of the Code of Federal Regulations (14 CFR) 91.715, Hamburger Flugzeugbau G.M.B.H. is hereby authorized to operate the aircraft identified above for the purpose of participating in aviation events. The aircraft does not meet the airworthiness requirements specified in Annex 8 to the Convention on International Civil Aviation and has been issued an Estonian permit to fly. The airplane will enter the United States on or about May 10, 2015, from Canada and will exit to Mexico approximately September 15, 2015. The intended aviation events include—

- Rhode Island National Guard Open House & Air Show, North Kingstown, RI
- Bethpage Air Show at Jones Beach, Wantagh, NY
- Virginia Beach Patriotic Festival, Virginia Beach, VA
- Westmoreland County Air Show, Latrobe, PA
- Denton Air Show, Denton, TX
- Spectacle Aerien International Bagotville, Bagotville, QC, Canada
- Battle Creek Field of Flight Air Show & Balloon Festival, Battle Creek, MI
- EAA AirVenture, Oshkosh, WI
- National Championship Air Races, Reno, NV

All operations of the aircraft must be in accordance with the following restrictions and limitations.

1. A copy of this authorization must be available to the pilot in command when operating under the terms of this SFA.

2. You must comply with all limitations imposed by the State of Registry and this authorization.

3. Persons or property must not be carried for compensation or hire.

4. This authorization is valid in the United States only.

5. Upon request, this authorization must be made available to an FAA inspector.

Figure 7-7. Sample SFA for Participating in Aviation Events (Continued)

6. Operation is restricted to airports that are within airspace class C, D, E, or G, except in the case of a declared emergency or authorized operations under an airshow waiver.

7. Kinds of operations authorized by the State of Registry are authorized, with the following restriction. If instrument flight operations are authorized, the pilot in command must have a method to avoid operating over densely populated areas or in congested airways.

8. Flight over densely populated areas is authorized only for the purpose of takeoff or landing.

9. Flight in Reduced Vertical Separation Minimum (RVSM) designated airspace is prohibited.

10. Flight with any externally mounted equipment is prohibited.

11. Preflight planning runway length requirements:

a. Takeoff is prohibited unless takeoff planning determines that it is possible to stop the airplane safely on the runway, as shown by the accelerate-stop distance data. In addition, the aircraft must be able to clear all obstacles by at least 50 feet vertically.

b. Landing will not be attempted unless landing planning determines that a full stop landing can be made within 60 percent of the effective length of the runway from a point 50 feet above the runway.

c. When calculating takeoff or landing performance, corrections must be made for any runway gradient. Performance data based on still air may be corrected by taking into account not more than 50 percent of any reported headwind component and not less than 150 percent of any reported tailwind component. Calculations may not include the use of reverse thrust or drag chute.

12. This authorization is valid until September 30, 2015, unless superseded or rescinded, or the Estonian permit to fly becomes invalid.

A.A. Smith, Manager
New York International Field Unit

Issued in Jamaica, New York, on May 1, 2015.

Chapter 8. Processing Forms, Reports, and Certification Files

800. General.

a. This chapter describes the requirements for completion and processing of the various forms and certificates used for airworthiness certification. Information entered on these documents should be typewritten when possible. The use of pencil, erasures, strikeovers, etc., on airworthiness forms other than applications and Aeronautical Center Form 8050-72 is not permitted. Application forms may be corrected by the applicant or the FAA, provided the person making the changes initials beside the area of correction.

b. The signature of the ASI or designee on any FAA certificate or form must be made on the original and required copies. The signature may be in blue or black ink. A digital signature that meets the requirements of FAA Order 1370.104, *Digital Signature Policy,* is also acceptable. When the reverse side of the certificate is used, the statement "See Reverse Side" must be typed on the face of the certificate and the word "-END-" must be typed in the center of the page below the last line of information on the reverse side. Dates on certificates should be in DD MMM YYYY format, for example, "25 DEC 2015."

801. Review and Completion of FAA Form 8130-6. FAA Form 8130-6 is required whenever an airworthiness certificate is requested, including any request for amendment or modification to a current airworthiness certificate, including operating limitations. AC 21-12 provides instructions to applicants for completion of FAA Form 8130-6.

a. The applicant or authorized agent must complete the following sections:

Note: An authorized agent is someone who has a notarized LOA from the registered owner.

(1) For a standard airworthiness certificate, complete sections I, II, and III. Also, complete section IV if the application is for a standard airworthiness certificate—

(a) In accordance with § 21.183(d), or

(b) In accordance with §§ 21.183(h) and 21.6(b)).

(2) For a special airworthiness certificate, complete sections I, II, and III.

(3) For a special flight permit only, complete—

(a) Sections II and VI for production flight testing or for both production flight testing and customer demonstration, or

(b) Sections II and VII for purposes other than production flight testing or for both production flight testing and customer demonstration.

(4) For production flight testing of light-sport category aircraft, complete sections I and II, and items A and C of section VI.

(5) For unmanned aircraft, complete sections I, II, and III (blocks A, B (when applicable), C, and D).

b. Instruction for Verifying Applicant Entries and Completing FAA Form 8130-6 (Figure 8-1 of This Order).

(1) Section I. Aircraft Description. The FAA must verify the applicant's entries from the aircraft registration certificate, aircraft ID plate, TCDS, and/or aircraft specification sheet.

> **Note:** This section is completed when an application is being made for a special flight permit for production flight testing of light-sport category aircraft.

(a) #1 Registration Mark. The U.S. nationality designator (the letter "N"), followed by the registration marks, is entered.

(b) #2 Aircraft Builder's Name (Make). The name of the builder or manufacturer as it appears on the aircraft ID plate in accordance with § 45.13(a)(1) is entered.

1 For amateur-built aircraft, the aircraft make is the name of the builder. Only the name of the individual listed first on the aircraft ID plate is entered.

2 For LSA assembled from an LSA manufacturer's kit, the builder's name is that of the manufacturer identified on FAA Form 8130-15.

3 For aircraft built from spare and/or surplus articles, the builder's name is the person who assembled the aircraft, not the TC owner/manufacturer that builds the same model of aircraft. When two or more persons are involved, only the name of the individual listed first on the aircraft ID plate is entered.

4 For former aircraft of the U.S. Armed Forces (U.S. military aircraft) (not assembled from spare and/or surplus articles), the builder's name must be as listed on the TCDS.

5 For unmanned aircraft, the builder's name is the manufacturer's company name.

(c) #3 Aircraft Model Designation. The model designation as shown on the aircraft ID plate in accordance with § 45.13(a)(2) is entered. Trade names must not be used.

1 If the application is for a surplus U.S. military aircraft, the civil model designation is entered and the military model designation is entered in parentheses. If the TC was issued under § 21.27, the military model designation becomes the civil model designation.

2 For aircraft built from spare and/or surplus articles, the model designation is the aircraft type design to which the applicant shows conformity.

3 For surplus U.S. military aircraft type certificated under § 21.25(a)(2) in the restricted category, only the military designation will be used.

4 For amateur-built aircraft, the model may be any arbitrary designation as selected by the builder. If the aircraft was purchased as a kit, the model designation assigned by the kit manufacturer should be used.

5 For unmanned aircraft, the model may be any designation selected by the manufacturer.

(d) #4 Year of Manufacture. The year of manufacture if shown on the aircraft ID plate or as reflected in the aircraft's records is entered.

1 For aircraft eligible for standard airworthiness certificates, the year of manufacture is the date (entered by the manufacturer) in the inspection records that reflect when the aircraft was completed and met the FAA-approved type design data.

2 For aircraft other than those in paragraph 801b(1)(d)*1* of this order, the year of manufacture is the date entered by the builder in the inspection records or logbook establishing evidence that the aircraft is airworthy and eligible for the requested certificate.

3 For LSA, the year of manufacture is the date entered by the manufacturer in the SOC or by the builder in the inspection records or logbook establishing evidence that the aircraft is eligible for the requested certificate.

(e) #5 Aircraft Serial Number. The serial number as shown on the aircraft ID plate in accordance with § 45.13(a)(3) is entered.

1 For surplus U.S. military aircraft, the manufacturer's civil serial number is entered. The military serial number must be placed in parentheses following the civil serial number. If no civil serial number exists, the military number is used.

2 For aircraft built from spare and/or surplus articles, the serial number may be assigned by the builder. That number should not be confused with the serial number assigned by an original manufacturer who builds the same type of aircraft under a PC. It is suggested that a letter prefix or suffix, such as the builder's name or initials, be used with the serial number to provide for positive ID.

3 For amateur-built aircraft, fabricated and assembled from plans or the builder's own design, the serial number may be any arbitrary number assigned by the builder. For any aircraft fabricated and assembled from a kit, the aircraft should be identified by the serial number assigned by the kit manufacturer or supplier.

(f) #6 Engine Builder's Name (Make). For type-certificated engines, the engine make is the name of the manufacturer as it appears on the engine ID plate in accordance with § 45.13(a)(1). Abbreviations may be used, for example, "P&W," "GE," or "CMC." For non-TC engines, enter the engine manufacturer's name as it is known. "N/A" is entered when no engines are installed, as in the case of a glider or balloon.

(g) #7 Engine Model Designation. The complete designation as shown on the engine ID plate is entered; for example, "O-320-A1B," "PT6A-20A," or "CFM-56-3C-1," in accordance with § 45.13(a)(2). For non-TC engines, enter the engine manufacturer's engine model designation as it is known. Enter "N/A" for aircraft with no engines.

Note: For LSA, the engine serial number is required in block #7.

(h) #8 Number of Engines. When applicable, the number of engines installed on the aircraft is entered.

(i) #9 Propeller Builder's Name (Make). The name of the manufacturer as shown on the propeller identification marking is entered. "N/A" is entered if propellers are not installed. (Refer to § 45.13(a)(1).)

(j) #10 Propeller Model Designation. The model designation as shown on the propeller identification marking is entered. Enter "N/A" for aircraft with no propellers.

(k) #11 Aircraft Is Import. This block must be checked only if the aircraft was manufactured outside the United States and certificated under § 21.29, and the applicant is seeking airworthiness certification under § 21.183(c).

(2) Section II. Certification Requested. The following paragraphs list the applicable 14 CFR references for standard and special airworthiness certificates and aid in the completion of FAA Form 8130-6:

(a) Item A. Standard Airworthiness Certificate. This certificate is issued to type-certificated aircraft in the normal, utility, acrobatic, transport, commuter, and manned free balloon categories; and for special classes of aircraft. Special class aircraft include gliders, airships, and other non-conventional aircraft. Special class application would be indicated by marking the "Standard" and Other blocks (section II A), and entering the type, (for example, glider, VLA, or airship) in the blank space directly above the category blocks. For aircraft type certificated before the adoption of categories, in the open space above the category blocks the basis is entered for certification as shown in that aircraft's aircraft listing, specification sheet, or TCDS (for example, Category "N/A"-Certification basis CAR 04 A (Civil Air Regulations part 4a)). Applicable regulations are as follows:

1 Section 21.183(a), New aircraft manufactured under a production certificate;

2 Section 21.183(b), New aircraft manufactured under a type certificate;

3 Section 21.183(c), Import aircraft;

4 Section 21.183(d), Used aircraft and surplus aircraft of the U.S. Armed Forces; and

5 Section 21.183(h), New aircraft manufactured under the provisions of § 21.6(b).

(b) Item B. Special Airworthiness Certificate. This certificate is issued to aircraft that do not meet the requirements for a standard airworthiness certificate. Special airworthiness certificates are identified as primary, limited, provisional, restricted, experimental, special flight permit, and light-sport. Applicable regulations are as follows:

1 Primary Airworthiness Certificate.

(aa) Section 21.184(a), New primary category aircraft manufactured under a production certificate;

(bb) Section 21.184(b), Imported aircraft;

(cc) Section 21.184(c), Aircraft having a current standard airworthiness certificate; and

(dd) Section 21.184(d), Other aircraft.

2 Light-Sport Airworthiness Certificate. Section 21.190, Issue of airworthiness certificate for LSA category.

3 Limited Airworthiness Certificate. Section 21.189, Issue of airworthiness certificate for limited category aircraft.

4 Provisional Airworthiness Certificate.

(aa) Section 21.221, Class I provisional airworthiness certificates (may be issued for all categories); and

(bb) Section 21.223, Class II provisional airworthiness certificates (transport category only).

5 Restricted Airworthiness Certificate.

(aa) Section 21.185(a), Aircraft manufactured under a production certificate or type certificate;

(bb) Section 21.185(b), Other aircraft (surplus U.S. military aircraft or one previously type certificated in another category); and

(cc) Section 21.185(c), Import aircraft (type certificated in the restricted category in accordance with § 21.29).

6 Experimental Certificate.

(aa) Section 21.191(a), Research and development;

(bb) Section 21.191(b), Showing compliance with regulations;

(cc) Section 21.191(c), Crew training;

(dd) Section 21.191(d), Exhibition;

(ee) Section 21.191(e), Air racing;

(ff) Section 21.191(f), Market surveys;

(gg) Section 21.191(g), Operating amateur-built aircraft;

(hh) Section 21.191(h), Operating kit-built aircraft (primary category aircraft assembled by a person(s) without the supervision and quality system of the PC holder);

(ii) Section 21.191(i), Operating LSA purpose under § 21.191(i)(1), (2), or (3); and

(jj) Unmanned aircraft—Research and development, crew training, and/or market survey.

7 Special Flight Permit.

(aa) Section 21.197(a)(1), Flying the aircraft to a base where repairs, alterations, or maintenance are to be performed, or to a point of storage;

(bb) Section 21.197(a)(2), Delivering or exporting the aircraft;

(cc) Section 21.197(a)(3), Production flight testing new production aircraft;

(dd) Section 21.197(a)(4), Evacuating aircraft from areas of impending danger;

(ee) Section 21.197 (a)(5), Conducting customer demonstration flights in new production aircraft that have satisfactorily completed production flight tests; and

(ff) Section 21.197(b), Operation of an aircraft at a weight in excess of its maximum certificated takeoff weight.

(c) Item C. Multiple Airworthiness Certificates. These certificates are issued to an applicant in the restricted category and one or more other categories except the primary category. Section 21.187 identifies the requirements an applicant must comply with before multiple airworthiness certificates are issued.

(3) Section III. Owner's Certification.

Note: This section is not completed when application is being made for a special flight permit.

(a) Registered Owner. The name and address is entered exactly as shown on the aircraft registration certificate. Part 47 prescribes the requirements for registering aircraft.

(b) If Dealer, this block is checked. This block must be checked *only* if the aircraft is registered under a dealer's aircraft registration certificate.

(c) Aircraft Certification Basis (Aircraft Specification or TCDS and/or Aircraft Listing Block, or Applicable Consensus Standard). This item must be completed when application is being made for a standard, primary, light-sport, provisional, limited, restricted, or multiple airworthiness certificate.

1 When application is being made for a multiple airworthiness certificate, the certification basis for each certificate being requested is entered.

2 If the TCDS or specification for a new aircraft or model has been approved, but not yet published, the date of approval, the TC or specification number, and the word "Preliminary" is entered.

3 When application is being made for a special airworthiness certificate in light-sport category, the applicable consensus standard for design and performance from the SOC is entered. If no SOC exists for the aircraft, enter "N/A."

4 "N/A" is entered when the application is being made for an experimental certificate.

(d) Airworthiness Directives (AD). This block must be completed to indicate compliance with all applicable ADs in accordance with part 39 and § 21.99, regardless of the type of airworthiness certificate being requested.

1 The number of the last biweekly supplement to the summary of ADs available as of the date of application is entered, for example, "2014-09, 04/21/2014-05/04/2014." When a special LSA category or experimental LSA is equipped with certificated equipment or appliances, use the applicable ADs for the certificated equipment and/or appliances. Compliance also applies to all LSA make- and model-specific ADs.

2 Applicable manufacturer safety directives for all LSA designed and manufactured to consensus standards must be entered. If there are not any manufacturer safety directives, "NONE" is entered.

(e) Aircraft Listing. This may apply to older aircraft listing ID is entered as appropriate. If no listing ID exists, "N/A" is entered.

(f) Supplemental Type Certificate (STC). This block is applicable to all standard airworthiness certifications and special airworthiness certifications in the restricted, limited, provisional, and primary categories for aircraft with one or more STCs installed, and must be filled out at the time of application. The STC number of each STC installed must be entered. An attachment may be used if more space is required by the applicant.

> **Note:** "N/A" is entered when the application is being made for a special airworthiness certificate in experimental or light-sport categories.

(g) Aircraft Operation and Maintenance Records.

1 Check If Records Are in Compliance With § 91.417. This block applies to all aircraft covered by this section and must be checked to indicate that the recordkeeping requirements of § 91.417 have been met. For example, to comply with § 91.417(a)(2)(i), the aircraft maintenance record must include the total time-in-service of the airframe, engines, propellers, and rotor; and to comply with § 91.417(a)(2)(ii), the record must include the current status of the life-limited articles of the airframe, engines, propellers, rotor, appliances, and articles. All record entries must be in English.

2 Total Airframe Hours. This block applies to all aircraft covered by this section. The total time-in-service of the aircraft, including production flight test time, should be entered.

3 Experimental Only. When submitting an application for the renewal of an experimental certificate, when requesting a change back to a standard certificate, or when requesting a change back to special LSA category certificate, the hours flown since the previous certificate was issued or renewed must be entered. If the application is for an original issuance of an experimental certificate and the aircraft has no previous operating time, "0" is entered.

(h) Certification. If the signature is by the owner's agent, a notarized letter from the registered owner authorizing the agent to act on the owner's behalf is required.

(4) Section IV. Inspection Agency Verification. This section must be completed only if application is being made for a standard airworthiness certificate in accordance with § 21.183(d). This section must be left blank for all other certification actions.

> **Note:** Section 21.183(d)(2) states that an experimentally certificated aircraft that previously had been issued a different airworthiness certificate under § 21.183, and is being returned to the standard airworthiness category, is exempt from the 100-hour inspection set forth in § 43.15. For used aircraft and surplus aircraft of the U.S. Armed Forces, the FAA may accept a previously performed inspection instead of a 100-hour inspection that meets the requirements set forth in appendix A to this order. Refer to paragraph 321 of this order for further information.

(5) Section V. FAA Representative Certification. This section must be completed by the ASI or designee that inspects the aircraft and issues the certificate. For unmanned aircraft, *only* an FAA ASI may complete section V. Representatives of the FAA authorized under part 183 are not permitted to issue experimental airworthiness certificates for unmanned aircraft.

(a) Check all applicable blocks in items A and B.

(b) MIDO/FSDO. An ASI must enter the appropriate MIDO or FSDO office designation (that is, the current MIDO/FSDO or branch identifier). Designees and ODA manufacturers must enter the designation of the MIDO or FSDO office geographically responsible for monitoring their activities.

(c) FAA Inspector's Signature or Designee's Signature and Number. The FAA inspector, designee, or ODA unit member who issued the certificate must sign here.

For ODA manufacturers, enter "ODA" followed by the ODA number. The DMIR, DAR, or ODA unit member signature must be signed above the typed or printed name on the original and copy(ies). The ASI's name must be typed or printed with the signature; the typed name and signature must be legible and must not obliterate preprinted information on FAA Form 8130-6.

(d) ASI's Certification File Review Signature. After the ASI has completed a final examination and review of the certification file and it is ready to be submitted to AFS-750, the ASI will sign the ASI certification file review block. The ASI's name must be typed or printed in this box with the signature above.

(6) Section VI. Production Flight Testing (or for both production flight testing and customer demonstration). This section must be completed only by a manufacturer applying for a special flight permit for the purpose of flight testing production aircraft under the provisions of § 21.197(a)(3). All required entries are self-explanatory.

> **Note:** The requirements in this section for LSA production flight testing are only items A and C, with item B remaining blank.

(7) Section VII. Special Flight Permit Purposes Other Than Production Flight Test (or for both production flight testing and customer demonstration).

(a) Item A. Description of Aircraft. The entries in this section must be the same as the corresponding data recorded on the aircraft's registration certificate and, as applicable, on the aircraft's ID plate.

(b) Item B. Description of Flight. The present location of the aircraft is entered in the "From" box and the aircraft's intended destination in the "To" box.

1 The "Via" entry must contain the name of an airport or city at some intermediate point in the flight to provide a general description of the route flown. For example, a flight from Kansas City, Missouri, to Dallas, Texas, may be via Wichita, Kansas, and Oklahoma City, Oklahoma, in accordance with § 21.199(a)(2).

2 The "Duration" entry must reflect the overall duration of the special flight permit and need not be the same as the planned duration of the actual flight. Factors such as fueling stops, weather conditions, overnight stops, or any other reasonable condition must be given consideration when establishing the duration.

(c) Item D. The Aircraft Does Not Meet the Applicable Airworthiness Requirements As Follows. This entry must specifically detail the conditions in which the aircraft does not comply with the applicable airworthiness requirements in accordance with § 21.199(a)(4).

(d) Item E. The Following Restrictions Are Considered Necessary for Safe Operation. This entry must contain in detail the restrictions the applicant considers necessary for safe operation of the aircraft; for example, reduced airspeed or weight, turbulence avoidance, and flightcrew member limitations or qualifications. This item must be carefully reviewed by the FAA to determine that the restriction would ensure safe operation of the aircraft.

Any deficiencies must be resolved before issuance of the special flight permit. The FAA also may prescribe additional conditions and limitations deemed necessary for safe operation.

(8) Section VIII. Airworthiness Documentation. This section must be completed by the ASI or designee who inspects the aircraft and issues the airworthiness certificate. However, this section is not applicable when a special flight permit is being issued.

(a) Item A. Operating Limitations and Markings in Compliance With 14 CFR Section 91.9, As Applicable. This block applies to all aircraft covered by this section. The FAA should check this block when an FAA-approved aircraft flight manual, listing of operation limitation, placards, etc., as applicable to the category of certificate requested, are in the aircraft in accordance with § 91.9.

(b) Item B. Current Operating Limitations Attached. Check this block when operating limitations have been issued and a copy is attached for retention in the permanent record. (This applies to aircraft certificated in categories other than standard.)

(c) Items C, D, and E. Self-explanatory. Check all blocks that are applicable.

(d) Item F. This Inspection Recorded in Aircraft Records. The following is considered a satisfactory statement for the aircraft record entry: "I find that the aircraft meets the requirements for the certification requested and have issued a (standard) (special) airworthiness certificate dated _____. The next inspection is due _____. Signed: John Smith, Aviation Safety Inspector, SW-41."

> **Note 1:** The next inspection date is not necessary when the aircraft is under a continuous maintenance program.
>
> **Note 2:** In the case of aircraft that had a previous due date, the date entered is the same. The aircraft gains no additional time because it was not in the standard category.

(e) Item G. Statement of Conformity, FAA Form 8130-9 (Attach When Required). Check the block to indicate FAA Form 8130-9 or, when LSA, Statement of Compliance, FAA Form 8130-15, and attach when required.

(f) Item H. Foreign Airworthiness Certification for Import Aircraft (Attach When Required). Check the block to indicate that certification of another country is required for the certification action and that a copy is attached for retention in the aircraft's permanent record.

(g) Item I. Previous Airworthiness Certificate Issued in Accordance With 14 CFR or CAR. If applicable, enter the appropriate CFR or CAR under which the last airworthiness certificate was issued, and check the block to indicate that the original of that certificate is attached. If the previously issued certificate is not available, the FAA should state the reason on an attachment. This block does not apply to certificates issued under paragraph 474, Temporarily Suspending an Airworthiness Certificate, of this order.

(h) Item J. Current Airworthiness Certificate Issuance in Accordance With 14 CFR. Check the box and enter the applicable section of part 21, subpart H, except that a manufacturer with an ODA must—

1 Enter § 21.183(a) or (b) for a standard airworthiness certificate, depending on whether the aircraft had been added to the PC under § 21.267, or under § 21.185 for a restricted category airworthiness certificate.

2 Add "per 14 CFR 183.49," to indicate the delegation authority.

(i) Item K. Light-Sport Aircraft SOC, FAA Form 8130-15 (Attach When Required). Check the block to indicate that a completed applicable copy of the manufacturer's SOC, FAA Form 8130-15, is attached for retention in the aircraft's permanent record.

c. Instructions for Reviewing Completed FAA Form 8130-6. The FAA must review the form to determine that all applicable entries have been made, and on issuance of the airworthiness certificate, must complete section V. In the event that an airworthiness certificate is denied, sections V and VIII must not be completed. A letter of denial, or a statement of the reason for denial, must be attached to the form and forwarded to AFS-750 as part of the aircraft records.

802. Completion of FAA Form 8100-2. The blocks on FAA Form 8100-2 must be completed using the information obtained with completed FAA Form 8130-6.

a. Nationality and Registration Marks. Enter the capital letter "N" followed by the registration number assigned to the aircraft.

b. Manufacturer and Model. Example: Beech-C33.

c. Aircraft Serial Number. Self-explanatory.

d. Category. Enter the appropriate category as defined in paragraph 801 of this order. If there is no category, as in the case of aircraft certificated before adoption of the regulations that established categories, enter the aircraft specification, TCDS, or listing number as applicable. For example, "CAR 4a" for a Bellanca 14-13; "ATC 614" for an Aeronca LC.

e. Authority and Basis for Issuance. Under Exceptions, enter the exemption number and a brief description of any exemptions from the applicable airworthiness standards (CAR 3, 4b, 5, 6, 7, or equivalent CFR) that have been granted for the aircraft (refer to aircraft specification or TCDS). If no exemptions exist, enter "None."

f. Date of Issuance. For an original or recurrent certificate, enter the date the certificate is issued. For a replacement or exchanged certificate, enter the date of the original certificate and insert the letter "R" or "E," respectively, before this date. When the certificate is being amended, insert the letter "A" before the new issuance date, which is the current date. (Refer to paragraph 217 of this order for additional information.)

g. FAA Representative. The typed name and signature of the ASI or designee issuing the certificate must be legible. The signature must be on the original and copies.

h. Designation Number. Depending on who issues the certificate, enter the following applicable information:

(1) ASI. The office identifier can be the current MIDO/FSDO or branch identifier, for example, SW-MIDO-41 or ANM-108;

(2) DMIR or DAR. The designee's number (for example, DMIR-123456-SW or DARF-123456-NM);

(3) ODA. The letters "ODA" followed by the ODA number.

803. Completion of FAA Form 8130-7. The blocks on FAA Form 8130-7 must be completed using all applicable information obtained from completed FAA Form 8130-6.

a. Section A. This section applies to all categories of special airworthiness certificates.

(1) Category/Designation. Enter the category of special airworthiness certificate being issued, as outlined under paragraph 801 of this order, for example, restricted, limited, or light-sport. For experimentally certificated manned free balloons or gliders, the words "Manned Free Balloon" or "Glider" are to be put in parentheses after the word "Experimental" for the respective type of aircraft. For experimentally certificated LSA, put in "Experimental."

(2) Purpose. Enter the operating purpose for which the special airworthiness certificate is being issued, as shown by the blocks checked by the applicant under section II, block B, on FAA Form 8130-6. If the application is for a limited category airworthiness certificate, the Purpose entry must be "N/A." For LSA category aircraft, enter one of the five classes of LSA: airplanes, gliders, powered parachutes, weight-shift control aircraft, and lighter-than-air aircraft (balloons and airships). There are six classes of LSA experimental purposes: airplanes, gliders, powered parachutes, weight-shift control aircraft, lighter-than-air aircraft (balloons and airships), and gyroplanes. For example, an LSA glider will be listed in the purpose as "light-sport (glider)." Because of the limited space available on the purpose line, the following abbreviations may be used: "PPC" for powered parachute, "WSC" for weight-shift control, "R&D" for research and development, and "show compliance" for showing compliance with regulations.

b. Section B. Enter the name and address of the manufacturer only if the application is for a special flight permit for the purpose of production flight testing. In all other cases, enter "N/A" in both spaces under this section.

c. Section C.

(1) This section is applicable for a special flight permit for purposes other than production flight testing or customer demonstration flights.

(a) For purposes other than production flight testing, the flight "From" and flight "To" spaces must be the same as that shown on FAA Form 8130-6, section VII, item B.

(b) For production flight testing, enter "N/A" in both spaces.

(c) For all purposes listed in § 21.25(b)(1) through (7), refer to paragraph 411 of this order.

(d) For all other special categories, enter "N/A" in both spaces.

(2) When the aircraft is to be flown outside the United States, enter "Subject to D(2) on reverse side" in section C on the face side of the special airworthiness certificate.

d. Section D. This section is applicable to all categories and purposes except production flight testing or customer demonstration flights. If the purpose is production flight testing of other than light-sport category aircraft, enter "N/A" in all spaces. For production flight testing of light-sport category aircraft, section D should include the registration number, aircraft serial number, and aircraft model. For all other categories and purposes, information to complete the entries in this section would be contained in section I of the application for airworthiness certificate.

e. Section E.

(1) Date of Issuance. Enter the date the certificate is issued. However, in those cases where a certificate is being exchanged or replaced, enter the date of the original certificate and insert the letter "E" or "R" before the date.

(2) Expiry. Enter the date of expiry if the application is for an experimental or special flight permit. An experimental certificate for R&D, showing compliance with regulations, crew training, or market surveys is effective for 1 year after the date of issue or renewal, unless a shorter period is deemed necessary. The duration of light-sport, amateur-built, exhibition, and air racing experimental certificates is unlimited unless good cause exists to establish a specific period. Additionally, LSA that have been grandfathered into LSA experimental purpose by rule exception and that have preexisting exemptions have an expiration date. For a provisional certificate, the entry should be in accordance with § 21.217.

(3) Operating Limitations Dated _____ Are a Part of This Certificate. Enter the date of the operating limitations. Do not repeat or paraphrase limitations printed on the back of the certificate. Enter "N/A" if the limitations on the reverse side of the certificate are adequate for the purpose.

(4) Signature of FAA Representative: Designation or Office No. Complete this space for *all* categories and purposes. Entries are the same as those explained in paragraphs 802g and h of this order.

804. Instructions for Reviewing a Completed FAA Form 8130-15, Light-Sport Statement of Compliance. This form is used for manufactured LSA including kit LSA. All information listed below applies to both, unless otherwise indicated. Figure 4-16 shows an example of a completed FAA Form 8130-15 for a special LSA. Figure 4-17 shows an example of a completed FAA Form 8130-15 for an experimental LSA kit.

a. Blocks 1 through 10, Aircraft Identification. These blocks must contain the aircraft information as shown on the aircraft ID plate, and the aircraft or kit documentation and records. All data must be consistent throughout and match the accompanying aircraft.

(1) Block 1, Manufacturer Name. (Official legal name.)

(2) Block 2, Manufacturer Address. (Physical location.)

(3) Block 3, Country of Manufacture. If located outside the United States, the country must have a BAA concerning airplanes or BASA with associated IPA concerning airplanes, or an equivalent airworthiness agreement, with the United States.

(4) Block 4, Date of Aircraft or Aircraft Kit Manufacture. (Formatted "mm/dd/yyyy.") For experimental LSA kits, the date of manufacture is the date the light-sport kit was completed by the manufacturer.

(5) Block 5, Aircraft Serial Number.

(6) Block 6, Aircraft Make.

(7) Block 7, Aircraft Model.

(8) Block 8, Maximum Takeoff Weight. (Specify in pounds or kilograms.)

(9) Block 9, V_H. Indicate the maximum airspeed in level flight with maximum continuous power under standard atmospheric conditions at sea level (knots calibrated airspeed).

(10) Block 10, V_{S1}. Indicate the maximum stalling speed or minimum steady flight speed without the use of lift-enhancing devices at the aircraft's maximum certificated takeoff weight and most critical center of gravity (knots calibrated airspeed).

> **Note 1:** This section also contains boxes that must be completed for class and type of LSA as manufactured.
>
> **Note 2:** Check all applicable items. Checking the box for "First of Make/Model" indicates that this make/model combination has not previously been issued a special LSA airworthiness certificate. Do not check this box for experimental LSA kits.

b. Blocks 11 through 30, Standards and Documentation.

(1) FAA Applicable Accepted Standard(s). Each standard identified should contain the standard source, standard number, and standard revision, for example, "ASTM Standard F2506-05." Identify all appropriate standards in each block for which compliance has been validated. More than one consensus standard may apply and some consensus standards can cover more than one topic and may be listed more than once.

Note 1: The standard revision identified must be the current FAA-accepted revision at the time of the date of manufacture identified in Block 4. For current and historical FAA-accepted consensus standards with effective dates, refer to the FAA Accepted ASTM Consensus Standards and the Light-Sport Aircraft Accepted Standards, FAA Notice of Availability (NOA) Information documents (both available on the FAA's Light-Sport Aircraft web page). These documents identify consensus standards by FAA acceptance date and those time periods where more than one revision of a standard may be used to allow manufacturers to transition the production line from a previous revision to a new revision.

Note 2: CAUTION: Standards identified in these instructions are samples only and not necessarily the latest revision accepted by the FAA. Always refer to the FAA Accepted ASTM Consensus Standards document listing when completing FAA Form 8130-15.

(a) Block 11, Design and Performance. The FAA-accepted consensus standard for the design and performance of the aircraft/kit should be listed in this block. For example, the entry would be "ASTM Standard F2317/F2317M 10 for a weight-shift control (WSC) aircraft/kit." Include in this block any other design and performance standard or optional standard not identified elsewhere on this form. The title of the standard also may be included. For example—

1 If the propeller requires a standard, the entry would be "ASTM Standard F2506-10 (propeller)."

2 If an airframe emergency parachute is installed, the entry would be "ASTM Standard F2316-08 (airframe emergency parachute)."

3 If declaring compliance to audit requirements, the entry would be "ASTM Standard F2839-11 (compliance audits)."

4 For powered parachute only include "ASTM Standard F2426-05a (wing interface)" in this block.

(b) Block 13, Required Equipment. The FAA-accepted consensus standard for required equipment should be listed in this block. For example, the entry would be "ASTM Standard F2317/F2317M 10 for a weight-shift control (WSC) aircraft/kit."

(c) Block 15, Quality Assurance. The FAA-accepted consensus standard for quality assurance should be listed in this block. For example, the entry would be "ASTM Standard F2972-12 for a weight-shift control (WSC) aircraft/kit."

(d) Block 17, Production Acceptance Tests. The FAA-accepted consensus standard for production acceptance tests for any class of special LSA should be listed in this block. For example, the entry would be "ASTM Standard F2447-05 for a weight-shift control (WSC) aircraft."

Note 1: For any class of experimental LSA kit, enter "N/A" in this block.

Note 2: Experimental LSA kit manufacturers are not required to meet a production acceptance test procedure for the kit. Instead, the experimental LSA kit manufacturer must make a statement of compliance to the applicable consensus standard identifying assembly instructions for the aircraft. (Refer to block 23 of this form.)

(e) Block 19, Maintenance & Inspection Procedures. The FAA-accepted consensus standard for maintenance and inspection procedures should be listed in this block. For example, the entry would be "ASTM Standard F2483-05 for any class of special LSA or any class of experimental LSA kit."

(f) Block 21, Continued Airworthiness. The FAA-accepted consensus standard for continued airworthiness should be listed in this block. For example, the entry would be "ASTM Standard F2425-05a for a weight-shift control (WSC) aircraft/kit."

Note: Aircraft assembled from experimental LSA kits are not required to be maintained in compliance with the manufacturer's continued airworthiness system; however, experimental LSA kit manufacturers are still required to comply with the requirements of the consensus standard for a continued airworthiness system.

(g) Block 23, Manufacturer's Assembly Instructions (Experimental LSA Kits Only). The FAA-accepted consensus standard for manufacturer's assembly instructions should be listed in this block. For example, the entry would be "ASTM Standard F2563-06 for any class of experimental LSA kit."

Note: For any class of special LSA, enter "N/A" in this block.

(h) Block 25, Powerplant or Motor System. The FAA-accepted consensus standard for powerplant or motor system should be listed in this block. For example, the entry would be "ASTM Standard F2339-06 for a reciprocating spark ignition engine installation on any class of special LSA or any class of experimental LSA kit."

(i) Block 27, Flight Training Supplement. The FAA-accepted consensus standard for the flight training supplement should be listed in this block. For example, the entry would be "ASTM Standard F2457-05 for a weight-shift control (WSC) aircraft/kit."

(j) Block 29, Pilot's Operating Handbook/Aircraft Operating Instructions. The FAA-accepted consensus standard for the POH/AOI should be listed in this block. For example, the entry would be "ASTM Standard F2457-05 for a weight-shift control (WSC) aircraft/kit."

(2) Manufacturer's Documentation. Each block should contain the specific manufacturer's document by title or company identifier with the revision and issue date that meets the identified consensus standard. For example, a proper entry would be "Express Works Design Package 01082009-1, N/C, 02/14/2010."

(a) Block 12, Design and Performance. The manufacturer's documentation for the design and performance of the aircraft should be listed in this block. For example, the entry would be "Express Works Design Package 01082009-1, N/C, 02/14/2010." (Refer to sample form.)

(b) Block 14, Required Equipment Listing. The manufacturer's documentation for the required equipment listing of the aircraft should be listed in this block. For example, the entry would be "Terradon Plus Listing-Rev C2., 03/17/2010." (Refer to sample form.)

(c) Block 16, Manufacturer's Quality Assurance System. The manufacturer's documentation for the quality assurance system of the aircraft should be listed in this block. For example, the entry would be "Express Works QA manual, Rev H, 04/01/2010." (Refer to sample form.)

(d) Block 18, Manufacturer's Production Acceptance Tests. The manufacturer's documentation for the production acceptance tests of any class of special LSA should be listed in this block. For example, the entry would be "Express Works ATP.001, N/C, 05/05/2011." (Refer to sample form.)

> **Note 1:** For any class of experimental LSA kit, enter "N/A" in this block.
>
> **Note 2:** Experimental LSA kit manufacturers are not required to meet a production acceptance test procedure for the kit. Instead, the experimental LSA kit manufacturer must provide assembly instructions for the aircraft. (Refer to block 24 of this form.)

(e) Block 20, Aircraft Maintenance and Inspection Procedures. The manufacturer's documentation for the aircraft maintenance and inspection procedures of the aircraft should be listed in this block. For example, the entry would be "Terradon Plus Maintenance Manual, Rev 10, 06/14/2011." (Refer to sample form.)

(f) Block 22, Manufacturer's Continued Airworthiness System. The manufacturer's documentation for the manufacturer's continued airworthiness system of the aircraft should be listed in this block. For example, the entry would be "Terradon Plus QA Manual, Rev 10, 06/14/2011." (Refer to sample form.)

> **Note:** Aircraft assembled from experimental LSA kits are not required to be maintained in compliance with the manufacturer's continued airworthiness system; however, experimental LSA kit manufacturers are still required to provide a continued airworthiness system for these aircraft.

(g) Block 24, Manufacturer's Assembly Instructions (Experimental LSA Kits Only). The manufacturer's documentation for the assembly instructions of the aircraft should be listed in this block. For example, the entry would be "Terradon Plus Assembly and Test Procedures, N/C, 07/04/2011, and Terradon Plus Break-in & Inspection Checklist, N/C, 07/04/2011." (Refer to sample form.)

Note: For any class of special LSA, enter "N/A" in this block.

(h) Block 26, Powerplant or Motor System. The manufacturer's documentation for the powerplant or motor system of the aircraft should be listed in this block. For example, the entry would be "Express Works Design Package 01082009-1, N/C, 02/14/2010, and Express Works Manufacturing PCS.02, Rev C 09/05/2011." (Refer to sample form.)

(i) Block 28, Aircraft Flight Training Supplement. The manufacturer's documentation for the aircraft flight training supplement of the aircraft should be listed in this block. For example, the entry would be "Express Works Flying Book, 8th English Edition, 09/11/2011." (Refer to sample form.)

(j) Block 30, Pilot's Operating Handbook/Aircraft Operating Instructions. The manufacturer's documentation for the POH/AOI of the aircraft should be listed in this block. For example, the entry would be "Express Works Flying Book, 8th English Edition, 09/11/2011." (Refer to sample form.)

c. Comments. This block and any attachment(s) should provide additional appropriate information not contained elsewhere on the form. It may be used to expand on the information contained in blocks 11 through 30 or to provide other information the manufacturer deems necessary. For all experimental LSA kit SOCs, this block should be used to provide evidence that an aircraft of the same make and model was manufactured and assembled by the aircraft kit manufacturer and issued a U.S. special airworthiness certificate in the light-sport category. Applicable standards for which the manufacturer is declaring compliance not referenced elsewhere on this form may also be listed in the comments section. Such standards may be listed whether they have been FAA-accepted or not. For example, standards related to the design, alteration, and certification of electrical wiring systems, inspection and maintenance of electrical wiring, or certification of personnel may be listed in this block.

d. Certification.

(1) Certification Statement. Provide the aircraft or kit serial number in the blank provided.

> **Note:** The experimental LSA kit manufacturer is not required to provide a certification statement for ground and flight testing the aircraft or to certify the aircraft is in a condition for safe operation. For this reason, these portions of the certification statement are marked as "N/A for kit." It is the responsibility of the person completing the assembly of the experimental LSA kit to ground and flight test the aircraft and make a determination that it is in a condition for safe operation. The kit LSA assembler cannot sign or amend FAA Form 8130-15.

(2) Primary Signature Block. In most cases, a single signature will meet the requirement for the issuance of an airworthiness certificate.

(a) Name. This block should provide the name of the manufacturer's representative (for example, the chief executive officer or chief quality officer) or the manufacturer's authorized agent.

(b) Signature. This block should provide the signature of the manufacturer's representative (for example, the chief executive officer or chief quality officer) or the manufacturer's authorized agent. The person(s) who signs in the manufacturer's certification section must be able to verify compliance to all applicable standards. Authorization for signature should be in writing from the manufacturer with all signatory names and titles specified within the manufacturer's quality system process documentation (for example, quality manual or other quality documentation), including any authorized agent(s).

(c) Title. This block should provide the title of the properly authorized individual.

(d) Date. This block should provide the date the form was signed.

(3) Additional Signature Block. In some cases, the manufacturer's quality assurance system may require two signatures, one at the production facility and one at an extension facility (that is, satellite manufacturing, assembly, and/or distribution facility) for any reassembly after transport or shipment, and/or flight testing, assembly, and installations as part of precertification work. FAA Form 8130-15 should never be signed by anyone except the manufacturer or its authorized agent(s).

(a) Name. This block should provide the name of the manufacturer's extension facility authorized quality person or the manufacturer's authorized agent.

(b) Signature. This block should provide the signature of the manufacturer's extension facility authorized quality person or the manufacturer's authorized agent. The person(s) who signs in the manufacturer's certification section must be able to verify compliance to all applicable standards. Authorization for signature should be in writing from the manufacturer with all signatory names and titles specified within the manufacturer's quality system process documentation (for example, quality manual or other quality documentation), including any authorized agent(s).

(c) Title. This block should provide the title of the properly authorized individual.

(d) Date. This block should provide the date the form was signed.

805. Completion of FAA Form 8130-4.

a. FAA Form 8130-4 must be filled out in duplicate. The original remains with the product and the duplicate is forwarded to AFS-750.

b. Place the Export Certificate Number Assignment Card number in the No. block at the top right corner of the form.

c. In the space provided in the certifying statement, enter the information identified in accordance with note (1) at the bottom of FAA Form 8130-4.

d. Product, manufacturer, model, etc., items are self-explanatory.

e. In the Exceptions block enter any noncompliance(s) to type design, requirements for the importing country, and the addition of any temporary installations required for delivery. If there are no exceptions, enter the word "None."

f. If other information is deemed necessary, enter "Additional Information" in the Exceptions block. For example, some importing countries want a statement that the product complies with a type design approved by their country's CAA.

g. The rest of the items are self-explanatory.

h. Lost FAA Form 8130-4.

(1) When FAA Form 8130-4 has been declared lost, the following information is required:

(a) A written statement from the importer stating the tag has been lost, and

(b) Evidence of previous export, traceable by invoice to model and serial number from the exporter.

(2) When these actions have been taken, a copy of the original form can be provided, if available. The replacement approval or a copy of the original lost approval must have an original signature and the same data as the lost FAA Form 8130-4.

806. Completion of FAA Form 8130-1. The applicant must complete part I of the application for aircraft. The applicant may complete part II of the application for aircraft engines, propellers, and articles but these applications may also be made orally. Part III is for FAA use only. All items are self-explanatory except as noted. Instructions for completion of parts I and II are used to help the FAA review the form as submitted by the applicant. Chapter 5 of this order contains further information on the use of this form.

a. Export Certificate No. This block is left blank by the applicant. The FAA must enter the serial number from Aeronautical Center Form 8050-72.

b. Part I (For Aircraft).

(1) Item Nos. 1-4. Self-explanatory.

(2) Item No. 5. Description of Product(s). Self-explanatory, except as follows:

(a) For an aircraft not under U.S. registry, insert in the Identification No. block the nationality and registration marks supplied by the State of Registry or intended registry that are displayed on the aircraft. For U.S.-registered aircraft, insert the ID marks as assigned under part 47. Any questions concerning the marking requirements of the importing country/jurisdiction must be resolved between the exporter/importer and the CAA of that country/jurisdiction.

(b) Under FAA Spec. No., enter the pertinent specification number or the TCDS number, as applicable.

(c) For new and used aircraft, in the Operating Time (Hours) Total block, enter the total time-in-service. Aircraft engines and propellers are not required to be new, as long as the importing country/jurisdiction accepts the aircraft with used engines and propellers. For aircraft, the blocks for engine(s) and propeller(s) must be completed to reflect the required information, as applicable.

(3) Item Nos. 6 and 7. These items are self-explanatory; however, if the No box is checked, explain the deviations in item No. 10 and attach the original or true copy of documents stating that the product will be acceptable with the deviations listed, as received from the CAA of the importing country/jurisdiction.

(4) Item No. 8. This item provides a means of establishing the date the ownership of the stated product is expected to pass to the purchaser.

(5) Item No. 9. This item provides a means of documenting the preservation and packaging methods used to protect against corrosion and damage. It is recommended that all products be appropriately treated for corrosion and damage prevention.

(6) Item No. 10. This space may be used to convey the information required under item Nos. 6 and 7. This space also may be used by the exporter to convey any other information pertinent to the issuance of the export airworthiness approval. Additional sheets may be attached, as necessary, and appropriately cross-referenced.

(7) Item No. 11. The authorized representative of the exporter must sign this certificate and ensure it is dated. The typed name, title, and signature must be legible.

c. Part II (For Aircraft Engines, Propellers, and Articles). If not making application orally, complete as follows:

(1) Item Nos. 12-14. These items are self-explanatory.

(2) Item No. 15. Use the instructions for entering eligibility information from FAA Order 8130.21.

Note: No entry is required in the FAA Spec No. box.

(3) Item No. 16. This item is self-explanatory.

(4) Item No. 17. This item provides for the description and listing of the aircraft engine, propellers, and articles being exported. Select the first check box and list the aircraft engine, propellers, and articles in the space provided. If the entire list of the aircraft engine, propellers, and articles cannot fit in the space provided, select the second check box and, on the line provided, specifically identify the exporter's shipping document covering the aircraft engine, propellers, and articles concerned. Attach a copy of this document to the form. In either case, if more than one type of aircraft engine, propeller, and article is involved, they are to be listed

according to the aircraft engine, propeller, or article for which they are eligible. List the name, part number (or equivalent means of identifying each physical aircraft engine, propeller, or article), and quantity of each article.

(5) Item No. 18. This item is self-explanatory. If the No box is checked, explain the noncompliance in item No. 10 and attach the original, or a true copy, of the documents stating that the product will be acceptable with the deviation(s) listed, as received from the CAA of the importing country/jurisdiction.

(6) Item No. 19. This item provides a means of documenting the preservation and packaging methods used to protect against corrosion and damage. It is recommended that all products be appropriately treated for corrosion and damage prevention.

(7) Item No. 20. The authorized representative of the exporter must date and sign this certification above the typed or printed name and title.

d. Part III. Approval (For FAA Use Only).

(1) Item No. 21. The ASI or designee's signature must be legible and in permanent blue or black ink (a copy, fax, or PDF copy with an original signature may be submitted). The number should be the office identifier or designee designation number. ODA manufacturers must use their authorization number as assigned by the FAA.

(2) Item No. 22. The ASI or authorized designee must enter the quantity of FAA Forms 8130-3 issued for the articles described in part II of the form.

(3) Item No. 23. A completed spot check of the file is indicated by the signature of the supervising ASI in permanent blue or black ink above the typed or printed name. The district or regional office number and date must be entered in the appropriate boxes.

807. Examination, Review, and Routing of Certification Files.

a. It is the responsibility of all ASIs and designees to examine in detail each certification file processed to ensure accuracy, completeness, legibility, and compliance with applicable requirements, including all necessary attachments. The following list represents the primary data that must be retained in the permanent files. For aircraft, these documents must be submitted to AFS-750 no later than 30 days after receipt by the field offices. Do not include any documentation that is not required in support of the certification action.

(1) Airworthiness Certificates.

(a) The original FAA Form 8130-6.

Note: The original notarized letter or a true copy of the original notarized letter authorizing an agent to sign for the registered owner, if applicable, must be included in the certification file forwarded to AFS-750.

(b) Applications for special flight permits for operation of overweight aircraft only in accordance with § 21.197(b).

(c) Applications for an experimental airworthiness certificate must include the data required by § 21.193, as applicable.

(d) The original FAA Form 8130-9.

(e) A copy of FAA Form 8130-31 or any other data, drawings, photographs, etc., as applicable.

(f) A copy of FAA Form 337, as applicable. Do not include referenced data forming the basis for approval of the repair or alteration.

(g) A copy of FAA Form 8100-2, or FAA Form 8130-7, as applicable. When FAA Form 8130-7 is issued as a special flight permit, submit only those copies which permit operation of overweight aircraft in accordance with § 21.197(b). Superseded, terminated, or canceled airworthiness certificates must be included if a recurrent certificate is issued. The superseded, terminated, or canceled airworthiness certificate should be marked accordingly.

(h) A copy of operating limitations, if issued.

(i) A copy of the checklist and inspection record for aircraft built from spare and surplus articles.

(j) The foreign airworthiness certificate for imported aircraft, as applicable.

(k) FAA Form 8130-15, SOC for special light-sport category and kit experimental LSA.

(l) A copy of the manufacturer's production flight test record(s) for special light-sport category.

(m) FAA Form 8130-12.

(n) A copy of the applicant's program letter, if required.

(2) Export of an Aircraft.

(a) The original FAA Form 8130-1.

(b) The statement of acceptance from an importing country/jurisdiction listing the specific noncompliance(s), as applicable.

(c) A copy of FAA Form 8130-4, GPO pad only.

(d) The original Aeronautical Center Form 8050-72.

(3) Export of Aircraft Engines, Propellers, and Articles. Retain the following in the district or regional office. DMIRs and ODAs may retain the records at their facility as long as their authorization is valid. DARs will retain a copy of the records at a location acceptable to the district or regional managing office.

(a) The original application (if made in writing for articles) along with any data showing acceptance of deviations from the CAA of the country/jurisdiction of import.

(b) A copy of FAA Form 8130-3.

(c) The original FAA Form 8100-1.

(4) Import of a Product Manufactured in a Bilateral Country. Retain the following in the district or regional office:

(a) Aircraft. The Export C of A issued by the CAA of the State of Manufacture that states the aircraft conforms to its type design and is in a condition for safe operation.

(b) Aircraft Engine and Propeller. The certification from the aircraft State of Manufacture for engines and propellers that was submitted when deemed they were a part of, or were to be installed on, an aircraft.

> **Note:** A certification may be accepted from a third-party country when the acceptance is permitted by the BAA or BASA IPA.

(c) The applicable documents listed in paragraph 807a(1) of this order.

b. In addition to the above-mentioned data, the district or regional offices must maintain copies of any other data they deem appropriate to substantiate the certification of the product and/or article. This includes FAA Form 8100-1, eligibility statements, program letters, etc. Tables 8-1 and 8-2 below may assist in identifying the required documents.

c. The appropriate district or regional office must ensure all airworthiness actions processed by FAA designees are submitted to the district or regional office for review before transmittal to AFS-750.

Table 8-1. Documents Required for New and Used Aircraft Certification (Standard)

R = Documents that must be sent with certification package to AFS-750.
A = Documents that must be made available during the certification process.

	Replace Certificate	Amend Certificate	Aircraft Manufactured Under a TC (Without an FAA Production Approval)	Aircraft Manufactured Under a PC	Aircraft Manufactured Under a PC ODA	Airworthiness Certification of Very Light Aircraft (VLA)	Aircraft Manufactured in a Bilateral Country	New Aircraft Manufactured Under the Provisions of § 21.6(b)	Used Aircraft	Surplus Aircraft of the U.S. Armed Forces	Aircraft Built from Spare and Surplus Articles
The original **FAA Form 8130-6**, Application for U.S. Airworthiness Certification.	*	R	R	R	R	R	R	R	R	R	R
The original notarized letter or a true copy of the original notarized letter authorizing an agent to sign for the registered owner (if required).	R	R	R	R	R	R	R	R	R	R	R
The original **FAA Form 8130-9**, Statement of Conformity.	*	*	R	*	*	R	R	R	*	*	R
Parts catalogs and maintenance manuals, technical data, TCDS, ADs, flight manuals, equipment lists, and other pertinent information necessary to support the certification process.	*	A	A	A	A	A	A	A	A	A	A
Aeronautical Center Form 8050-64, Assignment of Special Registration Numbers (only required for change to N-Number).	R	*	*	*	*	*	*	*	*	*	*
Registration Card **Aeronautical Center Form 8050-3**, Certificate of Aircraft Registration, or other acceptable evidence of registration.	A	A	A	A	A	A	A	A	A	A	A
A copy of **FAA Form 8100-2**, Standard Airworthiness Certificate.	R	R	R	R	R	R	R	R	R	R	R
Superseded, terminated, or canceled airworthiness certificates must be included if a recurrent certificate is issued.	R	R	*	*	*	*	*	*	*	*	*
FAA Form 8100-1, Conformity Inspection Record. *(Kept for Office File Only.)*	*	*	A	*	*	*	*	A	A	A	A
For any STC the applicant intends to incorporate into the aircraft during assembly, the applicant must own or have written permission from the STC holder/owner permitting the use of the STC.	*	A	A	A	A	A	A	A	A	A	A
Complete design package for the aircraft.	*	*	A	A	A	A	A	A	*	*	A

Table 8-1. Documents Required for New and Used Aircraft Certification (Standard)

R = Documents that must be sent with certification package to AFS-750.
A = Documents that must be made available during the certification process.

	Replace Certificate	Amend Certificate	Aircraft Manufactured Under a TC (Without an FAA Production Approval)	Aircraft Manufactured Under a PC	Aircraft Manufactured Under a PC with a PC ODA	Airworthiness Certification of Very Light Aircraft (VLA)	Aircraft Manufactured in a Bilateral Country	New Aircraft Manufactured Under the Provisions of § 21.6(b)	Used Aircraft	Surplus Aircraft of the U.S. Armed Forces	Aircraft Built from Spare and Surplus Articles
FAA Form 8130-11, Checklist and Inspection Record (only required for aircraft built from spare and surplus articles).	*	*	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Aircraft historical records, repairs, and modifications.	**A**	**A**	*	*	*	*	*	*	**A**	**A**	*
FAA-approved flight checkoff form to verify flight test completion.	*	*	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
FAA Form 8130-10, Surplus Military Aircraft Inspection Record.	*	*	*	*	*	*	*	*	*	**R**	*
DOD records.	*	*	*	*	*	*	*	*	*	**A**	*
FAA Form 8130-31, Statement of Conformity—Military.	*	*	*	*	*	*	*	*	*	**R**	*
Current weight and balance information.	*	*	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
The applicant must present acceptable evidence to substantiate conformance to the FAA-approved type design, including any modifications, for example, an STC or FAA field approval documented on FAA Form 337, and that the aircraft has been inspected in accordance with the performance rules for 100-hour inspections as set forth in § 43.15 and found to be airworthy.	*	*	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**

Table 8-2. Documents Required for New and Used Aircraft Certification (Special)

R = Documents that must be sent with certification package to AFS-750.
A = Documents that must be made available during the certification process.

								EXPERIMENTAL												
	Replacement Certificate	Amended Certificate	Primary	Light-Sport	Limited	Provisional	Restricted	R&D	Amateur-Built	Exhibition	Air Racing	Crew Training	Market Survey	Show Compliance	Primary Kit-Built	Light-Sport Kit-Built	Light-Sport Previous 21.190	Multiple Certificates	Special Flight Permit	Special Flight Authorization
The original **FAA Form 8130-6**, Application for U.S. Airworthiness Certification.	*	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**A**	**A**
The original notarized letter or a true copy of the original notarized letter authorizing an agent to sign for the registered owner (if required).	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	*	*
Aeronautical Center Form 8050-64, Assignment of Special Registration Numbers (only required for change N-Number).	**R**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Registration Card **Aeronautical Center Form 8050-3**, Certificate of Aircraft Registration.	**A**	**A**	**A**	**A**	**R**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
The original **FAA Form 8130-9**, Statement of Conformity. The TC holder for a restricted category aircraft manufactured in the United States must, on the initial transfer of ownership or application for an *original* airworthiness certificate. (§§ 21.130 and 21.183(b)).	*	*	*	*	*	**R**	**R**	*	*	*	*	*	*	*	*	*	*	**R**	*	*
Complete design/data package for the aircraft.	*	*	*	*	*	*	*	**A**	*	*	*	*	*	**A**	*	*	*	*	*	*

Table 8-2. Documents Required for New and Used Aircraft Certification (Special)

R = Documents that must be sent with certification package to AFS-750. *A = Documents that must be made available during the certification process.*																					
								EXPERIMENTAL													
	Replacement Certificate	Amended Certificate	Primary	Light-Sport	Limited	Provisional	Restricted	R&D	Amateur-Built	Exhibition	Air Racing	Crew Training	Market Survey	Show Compliance	Primary Kit-Built	Light-Sport Kit-Built	Light-Sport Previous 21.190	Multiple Certificates	Special Flight Permit	Special Flight Authorization
A copy of **FAA Form 337**, Major Repair and Alteration, as applicable. Do not include referenced data forming the basis for approval of the repair or alteration.	*	**A**	*	*	*	*	**R**	*	*	*	*	*	*	*	*	*	*	**R**	*	*
A copy of **FAA Form 8130-7**, Special Airworthiness Certificate.	**R**	**R**	**R**	**R**	**R**	**R**	*	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	*	*
FAA Form 8100-2, Standard Airworthiness Certificate. Held in suspension or *(if non-U.S.-manufactured aircraft type certificated) in any other category under § 21.29.*	*	*	*	*	*	*	*	**A**	*	*	*	*	*	**A**	*	*	*	*	*	*
Superseded, terminated, or canceled airworthiness certificates must be included if a recurrent certificate is issued.	**R**	**R**	**R**	**R**	*	**R**	**R**	*	*	*	*	*	*	*	*	*	**R**	*	*	*
Aircraft logbook, historical records, repairs, and modifications.	**A**	**A**	**A**	**A**	**R**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	*
A copy of operating limitations.	*	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**A**	**A**
A copy of the checklist and inspection record for aircraft built from spare and surplus articles.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Table 8-2. Documents Required for New and Used Aircraft Certification (Special)

R = Documents that must be sent with certification package to AFS-750.
A = Documents that must be made available during the certification process.

		Special Flight Authorization		*	*	*	*	*	*	*	*	*	*	*
		Special Flight Permit		*	*	*	*	*	*	*	*	*	*	*
		Multiple Certificates		*	*	*	*	*	*	*	*	*	*	*
	EXPERIMENTAL	*Light-Sport Previous 21.190*		R	A	*	*	R	*	*	*	*	*	*
		Light-Sport Kit-Built		R	*	*	*	R	*	*	*	*	*	*
		Primary Kit-Built		*	*	*	*	R	*	*	*	*	*	*
		Show Compliance		*	*	*	*	R	*	*	*	*	R	A
		Market Survey		*	*	*	*	R	*	*	*	*	R	A
		Crew Training		*	*	*	*	R	*	*	*	*	R	A
		Air Racing		*	*	*	*	R	*	*	*	*	R	A
		Exhibition		*	*	*	*	R	*	*	*	*	R	A
		Amateur-Built		*	*	R	R	R	A	*	*	*	R	A
		R&D		*	*	*	*	R	*	*	*	*	R	A
		Restricted		*	*	*	*	*	*	*	*	*	*	*
		Provisional		*	*	*	*	*	*	*	*	*	*	*
		Limited		*	*	*	*	*	*	*	*	*	*	*
		Light-Sport		R	R	*	*	*	*	*	*	*	*	*
		Primary		*	*	*	*	*	*	*	*	*	*	*
		Amended Certificate		*	*	*	*	*	*	*	*	*	*	*
		Replacement Certificate		*	*	*	*	*	*	*	*	*	*	*
				A copy of **FAA Form 8130-15**, Light-Sport Aircraft/Kit Statement of Compliance, for special light-sport category and kit experimental LSA.	A copy of the manufacturer's production flight test record(s) for special light-sport category.	**FAA Form 8130-12**, Eligibility Statement, Amateur-Built Aircraft.	Amateur-Built Aircraft **FAA Form 8000-38**, Fabrication/Assembly Operation Checklist, as appropriate.	A copy of the applicant's program letter.	Aircraft builder's log or equivalent.	Documentation of completed in-process and pre-cover inspections.	Photographs or three-view drawings (if required).	For turbine-powered aircraft, an inspection program selected, established, identified, and used as set forth in § 91.409(e) through (h).

Table 8-2. Documents Required for New and Used Aircraft Certification (Special)

R = Documents that must be sent with certification package to AFS-750. *A = Documents that must be made available during the certification process.*				FSDO-approved inspection program, to include ejection seat maintenance and jettisonable stores *(if fitted)* or required.	ATF Form 6, Application and Permit for Importation of Firearms, Ammunition, and Implements of War, proof of demilitarization.	The applicable documents listed in paragraph 807a(1) of this order.	The application for an SFA from the operator.	Applications for an experimental airworthiness certificate must include the data required by § 21.193, as applicable.	**FAA Form 8100-1**, Conformity Inspection Record.	Applications for special flight permits for operation of overweight aircraft only in accordance with § 21.197(b).	When **FAA Form 8130-7** is issued as a special flight permit, submit only those copies which permit operation of overweight aircraft in accordance with § 21.197(b).
		Special Flight Authorization		*	*	*	A	*	*	*	*
		Special Flight Permit		*	*	*	*	*	*	*	*
		Multiple Certificates		*	*	*	*	*	*	*	*
	EXPERIMENTAL	*Light-Sport Previous 21.190*		*	*	*	*	*	*	*	*
		Light-Sport Kit-Built		*	*	*	*	*	*	*	*
		Primary Kit-Built		*	*	*	*	*	*	*	*
		Show Compliance		*	*	*	*	*	*	*	*
		Market Survey		*	*	*	*	*	*	*	*
		Crew Training		A	*	*	*	*	*	*	*
		Air Racing		A	A	*	*	*	*	*	*
		Exhibition		A	A	*	*	*	*	*	*
		Amateur-Built		*	*	*	*	*	*	*	*
		R&D		A	*	*	*	*	*	*	*
		Restricted		*	*	*	*	*	*	*	*
		Provisional		*	*	*	*	*	*	*	*
		Limited		*	*	*	*	*	*	*	*
		Light-Sport		*	*	*	*	*	*	*	*
		Primary		*	*	*	*	*	*	*	*
		Amended Certificate		*	*	*	*	*	*	*	*
		Replacement Certificate		*	*	*	*	*	*	*	*

Table 8-2. Documents Required for New and Used Aircraft Certification (Special)

R = Documents that must be sent with certification package to AFS-750.
A = Documents that must be made available during the certification process.

								EXPERIMENTAL											
	Replacement Certificate	*Amended Certificate*	*Primary*	*Light-Sport*	*Limited*	*Provisional*	*Restricted*	*R & D*	*Amateur-Built*	*Exhibition*	*Air Racing*	*Crew Training*	*Market Survey*	*Show Compliance*	*Primary Kit-Built*	*Light-Sport Kit-Built*	*Light-Sport Previous 21.190*	*Multiple Certificates*	*Special Flight Permit*	*Special Flight Authorization*
Current weight and balance information.	*	*	**A**	**A**	**A**	*	**A**	*	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	*	*
Parts catalogs and maintenance manuals, technical data, TCDS, STCs CAR/CAM, ADs, flight manuals, equipment lists, and other pertinent information necessary to support the certification process.	*	*	**A**	*	**A**	**A**	**A**	*	**A**	**A**	**A**	**A**	**A**	**A**	**A**	*	*	**A**	*	*
Submittal of a special inspection and preventive maintenance program.	*	*	**A**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Written operating instructions for the aircraft in the English language, written maintenance and inspection procedures for the entire aircraft in the English language, and a flight training supplement in the English language.	*	*	*	**A**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
A finding and statement that the aircraft was not altered and/or modified without manufacturer approval. When the manufacturer's approval is given, it will be in written form and be serial number(s)-specific. *(Experimental LSA > LSA)*	*	*	*	**A**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Table 8-2. Documents Required for New and Used Aircraft Certification (Special)

R = Documents that must be sent with certification package to AFS-750. *A = Documents that must be made available during the certification process.*		*Special Flight Authorization*		*	*
		Special Flight Permit		*	*
		Multiple Certificates		*	*
	EXPERIMENTAL	*Light-Sport Previous 21.190*		*	A
		Light-Sport Kit-Built		*	A
		Primary Kit-Built		*	*
		Show Compliance		*	*
		Market Survey		*	*
		Crew Training		*	*
		Air Racing		*	*
		Exhibition		*	*
		Amateur-Built		*	*
		R & D		*	*
		Restricted		*	*
		Provisional		*	*
		Limited		*	*
		Light-Sport		A	A
		Primary		*	*
		Amended Certificate		*	*
		Replacement Certificate		*	*
				Evidence that the required maintenance and inspections were accomplished and documented in the aircraft's records in accordance with part 43. If not, the aircraft is not eligible for return to the special light-sport category configuration. Proof the aircraft was inspected and is in a condition for safe operation. *(Experimental LSA > LSA)*	AOI/POH, maintenance and inspection procedures, flight training supplement supporting documentation, the manufacturer's assembly instructions and approved flight test procedures, and the final inspection acceptance record(s).

Figure 8-1. Sample FAA Form 8130-6, Application for U.S. Airworthiness Certificate (Front Side)

Form Approved
O.M.B. No. 2120-0018

U.S. Department of Transportation
Federal Aviation Administration

APPLICATION FOR U.S. AIRWORTHINESS CERTIFICATE

INSTRUCTIONS - Print or type. Do not write in shaded areas; these are for FAA use only. Submit original only to an authorized FAA Representative. If additional space is required, use attachment. For special flight permits, complete Sections II, VI, and VII as applicable.

I. AIRCRAFT DESCRIPTION

1. REGISTRATION MARK	2. AIRCRAFT BUILDER'S NAME *(Make)*	3. AIRCRAFT MODEL DESIGNATION	4. YR. MFR.	FAA CODING
5. AIRCRAFT SERIAL NO.	6. ENGINE BUILDER'S NAME *(Make)*	7. ENGINE MODEL DESIGNATION		
8. NUMBER OF ENGINES	9. PROPELLER BUILDER'S NAME *(Make)*	10. PROPELLER MODEL DESIGNATION	11. AIRCRAFT IS *(Check if applicable)* IMPORT	

II. CERTIFICATION REQUESTED

APPLICATION IS HEREBY MADE FOR: *(Check applicable items)*

- A 1 ☐ STANDARD AIRWORTHINESS CERTIFICATE *(Indicate category)* ☐ NORMAL ☐ UTILITY ☐ ACROBATIC ☐ TRANSPORT ☐ COMMUTER ☐ BALLOON ☐ OTHER
- B ☐ SPECIAL AIRWORTHINESS CERTIFICATE *(Check appropriate items)*
  - 7 ☐ PRIMARY
  - 9 ☐ LIGHT-SPORT *(Indicate Class)* ☐ Airplane ☐ Power-Parachute ☐ Weight-Shift-Control ☐ Glider ☐ Lighter than Air
  - 2 ☐ LIMITED
  - 5 ☐ PROVISIONAL *(Indicate class)*
    - 1 ☐ CLASS I
    - 2 ☐ CLASS II
  - 3 ☐ RESTRICTED *(Indicate operation(s) to be conducted)*
    - 1 ☐ AGRICULTURE AND PEST CONTROL; 2 ☐ AERIAL SURVEY; 3 ☐ AERIAL ADVERTISING
    - 4 ☐ FOREST *(Wildlife conservation)*; 5 ☐ PATROLLING; 6 ☐ WEATHER CONTROL
    - 0 ☐ OTHER *(Specify)*
  - 4 ☐ EXPERIMENTAL *(Indicate operation(s) to be conducted)*
    - 1 ☐ RESEARCH AND DEVELOPMENT; 2 ☐ AMATEUR BUILT; 3 ☐ EXHIBITION
    - 4 ☐ AIR RACING; 5 ☐ CREW TRAINING; 6 ☐ MARKET SURVEY
    - 0 ☐ TO SHOW COMPLIANCE WITH THE CFR; 7 ☐ OPERATING *(Primary Category)* KIT BUILT AIRCRAFT
    - 8 ☐ OPERATING LIGHT-SPORT
      - 8A ☐ Existing aircraft without an airworthiness certificate & do not meet § 103.1
      - 8B ☐ Operating Light-Sport Kit-built
      - 8C ☐ Operating light-sport previously issued special light-sport category airworthiness certificate under § 21.190
    - 9 ☐ UNMANNED AIRCRAFT
      - 9A ☐ RESEARCH AND DEVELOPMENT; 9C ☐ CREW TRAINING
      - 9B ☐ MARKET SURVEY
  - 8 ☐ SPECIAL FLIGHT PERMIT *(Indicate operation to be conducted, then complete Section VI or VII as applicable on reverse side)*
    - 1 ☐ FERRY FLIGHT FOR REPAIRS, ALTERATIONS, MAINTENANCE, OR STORAGE
    - 2 ☐ EVACUATE FROM AREA OF IMPENDING DANGER
    - 3 ☐ OPERATION IN EXCESS OF MAXIMUM CERTIFICATED TAKE-OFF WEIGHT
    - 4 ☐ DELIVERING OR EXPORTING; 5 ☐ PRODUCTION FLIGHT TESTING
    - 6 ☐ CUSTOMER DEMONSTRATION FLIGHTS
- C 6 ☐ MULTIPLE AIRWORTHINESS CERTIFICATE *(Check ABOVE "Restricted Operation" and "Standard" or "Limited" as applicable)*

III. OWNER'S CERTIFICATION

A. REGISTERED OWNER *(As shown on certificate of aircraft registration)* — IF DEALER, CHECK HERE →

NAME	ADDRESS

B. AIRCRAFT CERTIFICATION BASIS *(Check applicable blocks and complete items as indicated)*

☐ AIRCRAFT SPECIFICATION OR TYPE CERTIFICATE DATA SHEET *(Give No. and Revision No.)*	☐ AIRWORTHINESS DIRECTIVES *(Check if all applicable ADs are complied with and give the number of the last AD SUPPLEMENT available in the biweekly series as of the date of application)*
☐ AIRCRAFT LISTING *(Give page number(s))*	☐ SUPPLEMENTAL TYPE CERTIFICATE *(List number of each STC incorporated)*

C. AIRCRAFT OPERATION AND MAINTENANCE RECORDS

☐ CHECK IF RECORDS IN COMPLIANCE WITH 14 CFR section 91.417	TOTAL AIRFRAME HOURS	3 ☐ EXPERIMENTAL ONLY *(Enter hours flown since last certificate issued or renewed)*

D. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above, that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations, and that the aircraft has been inspected and is airworthy and eligible for the airworthiness certificate requested.

DATE OF APPLICATION	NAME AND TITLE *(Print or type)*	SIGNATURE

IV. INSPECTION AGENCY VERIFICATION

A. THE AIRCRAFT DESCRIBED ABOVE HAS BEEN INSPECTED AND FOUND AIRWORTHY BY: *(Complete the section only if 14 CFR part 21.183(d) applies)*

- 2 ☐ 14 CFR part 121 CERTIFICATE HOLDER *(Give Certificate No.)*
- 3 ☐ CERTIFICATED MECHANIC *(Give Certificate No.)*
- 6 ☐ CERTIFICATED REPAIR STATION *(Give Certificate No.)*
- 5 ☐ AIRCRAFT MANUFACTURER *(Give name or firm)*

DATE	TITLE	SIGNATURE

V. FAA REPRESENTATIVE CERTIFICATION

(Check ALL applicable block items A and B)

A. I find that the aircraft described in Section I or VII meets requirements for
- ☐ THE CERTIFICATE REQUESTED
- 4 ☐ AMENDMENT OR MODIFICATION OF CURRENT AIRWORTHINESS CERTIFICATE

B. Inspection for a special flight permit under Section VII was conducted by:
- ☐ FAA INSPECTOR
- ☐ FAA DESIGNEE
- ☐ CERTIFICATE HOLDER UNDER
  - 14 CFR part 65
  - 14 CFR part 121 OR 135
  - 14 CFR part 145

DATE	MIDO/FSDO OFFICE	4 FAA INSPECTOR'S SIGNATURE or DESIGNEE'S SIGNATURE AND NO.	1 FAA INSPECTOR'S CERTIFICATION FILE REVIEW SIGNATURE

FAA Form 8130-6 (04-11) All Previous Editions Superseded

Figure 8-1. Sample FAA Form 8130-6, Application for U.S. Airworthiness Certificate (Back Side)

VI. PRODUCTION FLIGHT TESTING

A. MANUFACTURER

NAME | ADDRESS

B. PRODUCTION BASIS *(Check applicable item)*

- ☐ PRODUCTION CERTIFICATE *(Give production certificate number)* ⟶
- ☐ TYPE CERTIFICATE
- ☐ OTHER:

C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS

DATE OF APPLICATION | NAME AND TITLE *(Print or type)* | SIGNATURE

VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST

A. DESCRIPTION OF AIRCRAFT

REGISTERED OWNER | ADDRESS

BUILDER *(Make)* | MODEL

SERIAL NUMBER | REGISTRATION MARK

B. DESCRIPTION OF FLIGHT — CUSTOMER DEMONSTRATION FLIGHTS ☐ *(Check if applicable)*

FROM | TO

VIA | DEPARTURE DATE | DURATION

C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT

☐ PILOT ☐ CO-PILOT ☐ FLIGHT ENGINEER ☐ OTHER *(Specify)*

D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS:

E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION: *(Use attachment if necessary)*

F. CERTIFICATION - I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered with the Federal Aviation Administration in accordance with Title 49 of the United States Code 44101 et seq. and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is safe for the flight described.

DATE | NAME AND TITLE *(Print or type)* | SIGNATURE

VIII. AIRWORTHINESS DOCUMENTATION (FAA/DESIGNEE use only)

- ☐ A. Operating Limitations and Markings in Compliance With 14 CFR Section 91.9, As Applicable
- ☐ B. Current Operating Limitations Attached
- ☐ C. Data, Drawings, Photographs, etc. *(Attach when required)*
- ☐ D. Current Weight and Balance Information Available in Aircraft
- ☐ E. Major Repair and Alteration, FAA Form 337 *(Attach when required)*
- ☐ F. This inspection Recorded in Aircraft Records
- ☐ G. Statement of Conformity, FAA Form 8130-9 *(Attach when required)*
- ☐ H. Foreign Airworthiness Certification for Import Aircraft *(Attach when required)*
- ☐ I. Previous Airworthiness Certificate Issued in Accordance With 14 CFR Section _____ CAR _____ *(Original attached)*
- ☐ J. Current Airworthiness Certificate Issued in Accordance With 14 CFR Section _____ *(Copy attached)*
- ☐ K. Light-Sport Aircraft Statement of Compliance, FAA Form 8130-15 *(Attach when required)*

FAA Form 8130-6 (04-11) All Previous Editions Superseded

Appendix A. Acceptance of an Export Certificate of Airworthiness for Used Aircraft Under a Bilateral Agreement

1. Purpose. This appendix describes the concept of a 100-hour inspection requirement under an Export Certificate of Airworthiness (C of A).

2. Responsibilities of Aviation Safety Inspectors (ASI) and Designees.

a. All Federal Aviation Administration (FAA) ASIs and designees should be aware that not all bilateral agreements provide for U.S. acceptance of a bilateral country's Export C of A on a used U.S.- or third country-manufactured aircraft. (The term "third country" is used to indicate that an aircraft is being exported to the United States from a country that is not the State of Manufacture.) However, an Export C of A from a bilateral country for its own used aircraft is always acceptable under a bilateral agreement.

b. Table A-1, Example of Bilateral Agreements that Provide for Acceptance of an Export C of A for Used Aircraft (Information Is Not Current), lists agreements that contain provisions for used aircraft (example only). These agreements are largely the Bilateral Aviation Safety Agreement (BASA) with Implementation Procedures for Airworthiness (IPA). Updates to these bilateral agreements take place periodically. The most current information can be found on the FAA's website at http://www.faa.gov. When working with bilateral agreements, all FAA ASIs and designees must review the FAA's website to ensure they are using the most current information.

c. It is expected that an ASI or designee must give the maximum credit possible to the validity of a bilateral country's Export C of A when determining an aircraft's conformity to its FAA-approved type design. As a minimum, a bilateral country's Export C of A can be used as evidence that at the time of export—

(1) The aircraft's configuration conformed to its FAA-approved type design, as stated on the aircraft's FAA type certificate data sheet (TCDS);

(2) The aircraft was determined to be in a condition for safe operation;

(3) The aircraft's configuration conformed to any incorporated FAA-approved design changes under an STC; and

(4) The aircraft was in compliance with all FAA-issued airworthiness directives (AD) known by the bilateral civil airworthiness authority (CAA) to be in effect.

3. One Hundred-Hour Inspection Requirement.

a. When the conditions stated below are met, credit for a previously performed aircraft inspection can be given to meet the 100-hour inspection required by Title 14 of the Code of Federal Regulations (14 CFR) part 21, Certification Procedures for Products and Parts, § 21.183(d)(2). In addition to the method stated in paragraph 321a(5) of this order, credit for a

previously performed aircraft inspection can be given when the following five conditions are met:

(1) The United States has a BASA IPA in force with the exporting country;

(2) The aircraft is of a type of category included within the scope of section II of the BASA IPA;

(3) The inspection was performed while the aircraft was operated on the bilateral country's national registry;

(4) The inspection was performed by a repair facility approved by the bilateral country; and

(5) The aircraft's inspection records can demonstrate that the scope of the performed inspection meets the applicable performance rules stated in part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration, § 43.15.

b. Each ASI or designee should keep in mind that an Export C of A is only as good as the information on which is it based. Countries with which the United States has a bilateral agreement do not issue an Export C of A without first conducting an adequate airworthiness investigation of the aircraft and its historical records. However, the ASI or designee is still required to follow the airworthiness procedures contained in this order, specifically, chapter 3, Standard Airworthiness Certification, and chapter 6, Import Procedures.

c. The ASI or designee should conduct a review of the applicant's evidence (for example, Export C of A, maintenance records, and historical records) used to show the aircraft is entitled to the airworthiness certificate requested. Particular attention should be placed on verifying AD compliance, that any repair data are FAA-approved/accepted, and that all incorporated supplemental type certificates (STC) are FAA-approved/validated.

4. Special Bilateral Provisions.

a. As stated above, the level of credit that can be given to a bilateral country's Export C of A is associated with the provisions specified within the scope of an individual bilateral agreement. Table A-1 is an example that illustrates how these provisions apply from one bilateral country to another. Of a particular note, the Canadian agreements contain more extensive airworthiness provisions than other bilateral agreements regarding airworthiness and maintenance.

b. In addition to the regulatory provisions stated in § 43.17, the U.S./Canada bilateral agreement includes—

(1) U.S. acceptance of a Canadian Export C of A on a used U.S.- or third country-manufactured aircraft;

(2) U.S. acceptance of a Canadian-approved STC on any aircraft, after the FAA has validated the STC;

(3) U.S. acceptance of the incorporation of the FAA-validated STC, on a U.S.-registered aircraft when accomplished by a Canadian-approved repair facility;

(4) U.S. acceptance of the article(s) associated with an FAA-validated STC, for installation on a U.S.-registered aircraft, when fabricated by a manufacturer holding a production approval issued by Transport Canada Civil Aviation (TCCA);

(5) U.S. acceptance of Canadian-approved repair data on a U.S. aircraft; and

(6) U.S. acceptance of a 100-hour inspection on a U.S.-registered aircraft when accomplished by a Canadian-approved maintenance facility.

> **Note:** The term "validated" used in paragraphs 4b(2) through (4) of this appendix simply mean that the FAA has conducted an engineering review of the TCCA-approved STC and has issued a corresponding FAA STC. A Canadian STC alone is not adequate.

c. The FAA's approval/validation of a bilateral country's approved STC, in accordance with the provisions of a BASA IPA, may not be readily apparent while reviewing the aircraft's records. The aircraft's records may at times only reference the bilateral country's STC. Therefore, the ASI or designee should verify any incorporated STC modifications are traceable to an FAA-approved STC.

d. When the FAA-validated STC is incorporated on a U.S.-registered aircraft, it must have been done in accordance with the applicable 14 CFR. When the FAA-validated STC is incorporated on a non-U.S.-registered aircraft, the incorporation would only be considered acceptable when the following three conditions are met:

(1) The modification was incorporated while an aircraft was operated on the bilateral country's national registry;

(2) The article(s) associated with the FAA-validated STC were fabricated by a manufacturer holding a production approval issued by the bilateral CAA; and

(3) The modification was incorporated by a repair facility approved by the bilateral country.

e. The amount of credit that may be given to any specific bilateral country's Export C of A is governed by the airworthiness provisions contained in that country's bilateral agreement with the United States. All airworthiness-related bilateral agreements can be found on the FAA's website.

Table A-1. Example of Bilateral Agreements That Provide for Acceptance of an Export C of A for Used Aircraft (Information Is Not Current)

Bilateral Countries	Bilateral Airworthiness Agreement (BAA) or BASA IPA	Acceptance of Export C of A for Used U.S. Aircraft (*See notes 1 & 2.*)	Acceptance of Repair Data on Used U.S. Products	Acceptance of Maintenance Activities on U.S.-Registered Aircraft Performed in a Non-FAA-Approved Repair Facility (*See notes 4 & 5.*)	Acceptance of an Export C of A for Third Country Manufactured Used Aircraft (*See note 6.*)
Argentina	BAA	NO	NO	NO	YES
Australia	BASA IPA	YES	YES (*See note 7.*)	NO	YES
Belgium	BAA	NO	NO	NO	YES
Brazil	BASA IPA	YES	NO	NO	YES
Canada	BASA IPA	YES	YES (*See note 3.*)	YES	YES
Denmark	BAA	NO	NO	NO	YES
France	BASA IPA	YES	YES (*See note 9.*)	NO	YES
Germany	BASA IPA	YES	YES (*See notes 8 & 9.*)	NO	YES
Israel	BASA IPA	YES	NO	NO	YES
Italy	BASA IPA	YES	YES (*See note 9.*)	NO	YES
Japan	BAA	NO	NO	NO	YES
Netherlands	BASA IPA	YES	YES (*See note 9.*)	NO	YES
New Zealand	BASA IPA	YES	YES (*See note 7.*)	NO	YES
Romania	BASA IPA	YES	NO	NO	YES
Singapore	BASA IPA	NO	NO	NO	YES
Sweden	BASA IPA	YES	YES (*See note 9.*)	NO	YES
United Kingdom	BASA IPA	YES	YES (*See notes 8 & 9.*)	NO	YES

Note 1: The bilateral country's Export C of A can be used as evidence that at the time of export—
1. The aircraft's configuration conformed to its FAA-approved type design, as stated on the aircraft's FAA TCDS;
2. The aircraft was determined to be in a condition for safe operation;
3. The aircraft configuration conformed to any incorporated FAA-approved design changes under an STC; and
4. The aircraft was in compliance with all FAA-issued ADs known by the bilateral CAA to be in effect.

Note 2: Please review the applicable bilateral agreement for the country in question because it may have limitations on the type or category of used U.S. aircraft acceptable under the bilateral agreement. For example, the U.S. acceptance of a Romanian Export C of A on a used U.S. aircraft is limited to a sailplane, power sailplane, or a very light airplane certificated to JAR-VLA.

Note 3: The U.S./Canada BASA IPA, BASA Maintenance Implementation Procedure (MIP), and Memorandum of Understanding contain provisions for FAA acceptance of certain repair data. The following documents provide a better understanding of these provisions:
1. BASA IPA dated October 2000.
2. BASA MIP dated August 31, 2006. Refer to AC 43-10, *United States-Canadian BASA/MIP Maintenance*, for information related to the provisions of the MIP.
3. The Memorandum of Understanding between TCCA and the FAA dated October 2003, or any later revision approved by TCCA and the FAA. (Refer to http://www.tc.gc.ca/eng/civilaviation/standards/int-memoranda-usa-3687.htm.) Refer to FAA Order 8110.53, *Reciprocal Acceptance of Repair Design Data Approvals.*

Note 4: The U.S./Canadian MIP contains provisions for acceptance of certain maintenance, alterations, or modifications, and those persons or organizations authorized to perform such functions on U.S. products. The acceptable maintenance activities include the accomplishment of a 100-hour inspection. Also § 43.17 provides additional provisions related to maintenance functions performed on U.S. products. The following documents provide a better understanding of these provisions:
1. Section 43.17, Maintenance, preventive maintenance, and alterations performed on U.S. aeronautical products by certain Canadian persons.
2. BASA IPA dated October 2000.
3. BASA MIP dated August 31, 2006. Refer to AC 43-10 for information related to the provisions of the MIP.
4. The Memorandum of Understanding between TCCA and the FAA dated October 2003, or any later approved revisions. Refer to FAA Order 8110.53.

Note 5: Please take into consideration that the FAA has certificated repair stations located in other countries that also hold a certification from their national CAA, thereby giving the repair station the ability to make a compliance statement to their national regulations and the U.S. regulations. In particular, the FAA has concluded BASA MIPs with France, Germany, and Ireland.

Note 6: These bilateral agreements (for example, BAA or BASA IPA) contain a third-country provision that allows the United States to accept an Export C of A issued by the bilateral country for certain aircraft. Please review the bilateral agreement for the country in agreement. When allowed by the bilateral agreement, the bilateral country's Export C of A may be used as evidence that at the time of export—
1. The aircraft's configuration conformed to its FAA-approved type design, as stated on the aircraft's FAA TCDS;
2. The aircraft was determined to be in a condition for safe operation;
3. The aircraft configuration conformed to any incorporated FAA-approved design changes under an STC; and
4. The aircraft was in compliance with all FAA-issued ADs known by the bilateral CAA to be in effect.

Note 7: The BASA IPAs between the United States and the countries of Australia and New Zealand contain specific provisions for FAA acceptance of repair design data related to certain categories of airplanes or aircraft. The BASA IPAs require a specific certifying statement be made by the appropriate CAA related to the acceptance of the repair design data.

Note 8: Under the Special Arrangements provisions of the BASA IPAs between the United States and the countries of Germany and the United Kingdom, the FAA has agreed to accept repair design data and alteration data when specific conditions have been met. The conditions or limitations for FAA acceptance of repair design data or alteration data is as follows:
1. U.S. State of Design Transport Category Airplanes moving from the bilateral country's civil aircraft registry to the U.S. registry.
2. The data has been approved by the U.K. CAA, for airplanes on the U.K. registry, or the Luftfahrt-Bundesamt (LBA), for airplanes on the German registry, or by an approved design organization in the United Kingdom or Germany.
3. The repairs or alterations made to specific airplanes do not constitute a major change rising to the level of an amended type certificate or STC.
4. The repair design data or alteration data is accompanied by the following certifying statement from the appropriate CAA (that is, U.K. CAA or LBA): "The data identified in this document have been examined and were approved under the authority of the [Civil Aviation Authority of the United Kingdom or Luftfahrt-Bundesamt of the Federal Republic of Germany, as appropriate]. Additional maintenance requirements that must be incorporated into the aircraft maintenance program are identified within the approved data."

The information in note 8 was originally published in a July 2003 issued Flight Standards Handbook Bulletin for Airworthiness number 03-05 (HBAW 03-05).

Note 9: Review paragraph 320b of this order for the conditions and limitations under which the FAA has agreed to accept specific design data from the European Aviation Safety Agency (EASA), and the countries of France, Germany, Italy, The Netherlands, Sweden, and the United Kingdom.

Appendix B. Program Letter for Experimental Aircraft

1. General. The applicant must provide the information required by Title 14 of the Code of Federal Regulations (14 CFR) part 21, Certification Procedures for Products and Parts, § 21.193(a) through (d). It is important that the information provided in the program letter have sufficient detail to permit the Federal Aviation Administration (FAA) to prescribe the limitations necessary to ensure safe operation of the aircraft. This appendix is not intended to prescribe what must be contained in every program letter, but to provide items for consideration in determining if the applicant's letter is acceptable. In addition to the policies and procedures in paragraph 444 of this order, use the following to determine if a program letter includes sufficient information to establish whether an applicant is eligible for a specific experimental purpose.

2. Description of the Intended Operation(s) and How It Meets the Desired Purpose.

a. Research & Development. For each research and development (R&D) project, the program letter should—

(1) Describe the project in sufficient detail to demonstrate it meets the regulatory requirements of § 21.191(a).

(2) Include the number of aircraft required.

(3) Include the duration.

(4) Include the number of flights and/or flight hours.

(5) Describe the area and airports in which the aircraft will be operated.

(6) Provide contact information of the customer, if the project will be performed under contract.

> **Note 1:** The applicant may be seeking a project with another company, but may not yet have been awarded a specific contract to conduct the R&D. The applicant may still submit an application that includes information about the project they intend to conduct. The operating limitations issued should be specific and only valid for that project.
>
> **Note 2:** The operating conditions and limitations should reflect only those projects for which information was submitted at the time of application. To add new projects to an existing certificate, the applicant should submit a new or amended program letter. This may necessitate a revision to the issued operating limitations.

b. Exhibition. The program letter should—

(1) Provide event names and dates for the events at which the aircraft will be exhibited.

(2) Propose route(s) of flight to and from the events.

(3) For proficiency and/or maintenance flights, include the estimated number of flight hours and the intended area and airports in which the aircraft will be operated.

c. Crew Training. The program letter should describe the training plan as follows:

(1) For pilot transition training that leads to a pilot authorization, provide—

(a) The name of the person within the company who will provide the training and that person's qualifications (for example, instructor pilot training received),

(b) A training syllabus,

(c) The time needed to complete the training (that is, approximate number of hours over a defined period of time),

(d) The estimated number of pilots to be trained, and

(e) The airport(s) and area(s) of operation where the training will be conducted.

(2) For recurrent or revalidation training, provide—

(a) The name of the person within the company who will provide the training and that person's qualifications (for example, instructor pilot training received),

(b) When a pilot would need this training (for example, every 6 months, annually, or after a specified period of inactivity),

(c) A training syllabus,

(d) The time needed to complete the training (that is, approximate number of hours over a defined period of time),

(e) The performance standards to complete the training, and

(f) The airport(s) and area(s) of operation where the training will be conducted.

Note 1: The Airline Transport Pilot and Aircraft Type Rating Practical Test Standards for Airplane should also be used as a guide for the tasks taught and flightcrew performance standards.

Note 2: For training in a former military aircraft, the training syllabus for instructor pilots and line pilots should follow an appropriate military training standard (for example, Naval Air Training and Operating Procedures Standardization (NATOPS)) or other appropriate training standard deemed acceptable.

Note 3: The operating limitations should only permit training flights necessary to complete the training plan. The operating limitations must state that the occupants of the aircraft must be flightcrew employees of the company/applicant.

d. Market Survey. The program letter should—

(1) Describe the market survey in detail.

(2) Describe the area and airports in which the aircraft will be operated.

(3) Identify intended customers.

(4) Specify dates for the market survey activity.

e. Air Racing. The program letter should—

(1) Provide event names and dates for the applicable air races.

(2) Include route(s) of flight to and from the races.

(3) Describe the area and airports in which the aircraft will be operated for races and for proficiency and maintenance flights.

(4) Include the estimated number of hours for proficiency flying and/or maintenance flights.

(5) Describe any major modifications that have been made to the aircraft.

Note: Major modifications will require phase I flight testing.

f. Aircraft That Could Perform Public or Military Aircraft Operations. An applicant for a civil experimental airworthiness certificate that may also perform public or military operations for a domestic or foreign government or military entity should include additional information in its program letter for the FAA to understand all the operations to be conducted. Operations and configurations in the non-civil arena may impact the operating limitations for the civil airworthiness certificate.

Note: Advisory Circular 00-1.1A, *Public Aircraft Operations,* provides guidance for determining whether government or government-contracted aircraft operations conducted within the territory of the United States constitute public aircraft operations (PAO) under the statutory definition of "public aircraft," embodied in Title 49 of the United States Code 40102(a)(41) and 40125.

(1) Identify the government/military customer.

(a) Provide the name of the government/military entity and a point of contact.

(b) Include the length of the contract.

(2) Describe the types of operations/intended use of this aircraft.

(a) Be specific in the type aerial work to be conducted.

(b) Include the number of aircraft your operation will need to support the contract.

(c) Describe the area of operation, including airports in and out of which the aircraft operates.

(d) Describe operating capability requirements.

(e) Include any other information relevant to how the aircraft will be operated.

(3) For operations in the United States, indicate whether you have or intend to obtain a declaration of PAO from your government contracting entity. For international operations, please indicate whether the operation will be covered under a diplomatic clearance.

(4) Estimate the percentage of flight time intended for state/public/military service and flight time while operating when the special airworthiness certificate would be in effect.

(5) Describe any configuration or operating changes in state/public/military use that may affect the airworthiness of the aircraft on return to civil status; for example, under civil status, any external stores/pods may not be releasable during aircraft operations.

(6) Describe how/when the aircraft would return to operations using its FAA-issued special airworthiness certificate.

(a) Describe any configuration changes.

(b) Describe any operations that may cause a flight to be operated outside of the normal flight envelope (or the reduced flight envelope of the special airworthiness certificate).

(c) Describe the method, to include inspections, etc., to establish airworthiness.

Note 1: Public/state/military aircraft operations are not covered under an FAA airworthiness certificate. The contracting entity assumes responsibility for the flight.

Note 2: The information gathered concerning public/state/military operations should be used to better determine appropriate operating limitations. For example, if a military operation will require the aircraft to exceed a g-load limit in the operating limitations, an additional limitation may need to be added that requires an inspection and logbook entry before operations under the FAA certificate.

g. Additional Information.

(1) Operating Area. A written description or annotated map is acceptable. Specifically describe the area. Stating “North America” or “worldwide” is not acceptable. Using the term “the United States” to describe the operating area may be acceptable for low-risk aircraft such as a type-certificated aircraft that has been altered in a manner that does not affect reliability or controllability. The FAA may establish boundaries of the flight test area, including takeoff, departure, and landing approach routing to minimize hazards to persons, property, and other air traffic. However, it is the operator’s responsibility to ensure safe flight of the aircraft.

(2) Safeguard General Public. The program letter should contain any pertinent information found necessary by the FAA to safeguard the general public. For example, the letter should include any exemptions that may apply to the aircraft, such as nonstandard markings or using an experimental aircraft for hire.

(3) Multiple Purpose Use. If the applicant intends to use the aircraft for multiple purposes or roles, the program letter should—

(a) Document all operations for each purpose.

(b) Describe any configuration changes that will occur between each purpose, such as adding or removing external stores and enabling or disabling systems.

(c) Include each purpose in a separate section. For example, an aircraft could have an experimental airworthiness certificate for the purposes of R&D and exhibition. The same aircraft may also conduct military/state operations or PAO. In this example, the program letter must describe all three roles with the same level of detail. Although the airworthiness certificate is not in effect, and the FAA cannot prescribe limitations for PAO, the FAA cannot determine the appropriate certification for the aircraft without knowledge of how the aircraft is used.

Figure B-1. Sample R&D/Exhibition/PAO Applicant Program Letter for a Special Airworthiness Certificate

1. Registered Owner (as shown on Certificate of Aircraft registration)
   NAME: *Brand X Support Services, Inc.*
   ADDRESS: *123 Airport Street*
   Any Town, USA 00010-0001

2. Aircraft Description
   a. Registration Marks: *N12345*
   b. Aircraft Yr. Mfg.: *1972*
   c. Aircraft Serial No.: *52*
   d. Aircraft Model Designation: *Aero Vodochody, L-39 Albatros*

R&D

3. Describe program purpose for which the aircraft is to be used (14 CFR 21.193(d)(1)).
   R&D providing chase for Major Airplane Manufacturer for certification testing of their next bizjet. Aircraft Certification Office X is the project office. The assigned project number is ACOXzzz.

4. Provide the following information as it pertains to your Program Letter.
   a. List estimated flight hours required for program. Hrs.: *unknown*
   b. List estimated number of flights required for program. No. Flts: *50*
   c. List estimated duration for programs (14 CFR 21.193(d)(2)): *150 days*

5. Describe the areas over which the flights are to be conducted, and address of base operation (14 CFR 21.193(d)(3)).
   The flights will take place within 150nm of airport KAAA, excluding the airspace over City-X. The maximum altitude is FL240. The base of operations is Major Airplane Manufacturer Hangar, 12345 Tower Drive, City-X, 00025.

6. Describe the aircraft configuration (attach three-view drawings or three-view dimensioned photographs of the aircraft (14 CFR 21.193(d)(4) and include a description of how the configuration is different from the other purposes listed). *See attached.*

Exhibition

3a. Describe program purpose for which the aircraft is to be used (14 CFR 21.193(d)(1)).
   Exhibition at the following events over the next 8 months:
   AirVenture – KOSH, August 1, 2013
   Billy Bob's Air Event – KAAA, June 30, 2013

4a. Provide the following information as it pertains to your Program Letter.
   a. List estimated flight hours required. Hrs.: *13 hours exhibition, including the flights to and from the events. 10 hours for crew training.*
   b. List estimated number of flights required. No. Flts: *unknown*

Figure B-1. Sample R&D/Exhibition/PAO Applicant Program Letter for a Special Airworthiness Certificate (Continued)

5a. Describe the areas over which the flights are to be conducted, and address of base operation (14 CFR 21.193(d)(3)).
Crew training flights will take place within 125 nm of AnyTown, U.S., airport with a maximum altitude of 10,000 ft. The base of operations is the address listed above.

6a. Describe the aircraft configuration (attach three-view drawings or three-view dimensioned photographs of the aircraft (14 CFR 21.193(d)(4) and include a description of how the configuration is different from the other purposes listed). *See attached.*

Military/State/Public Aircraft Operations

The aircraft will provide contract support for the U.S. Department of Defense and People's Liberation Army Air Force. The contracts call for towing targets, aerial survey, serve as aggressor for pilot training, aerial gunnery/missile launch and dropping bombs.

The flight area extends from the Qinghai Province to Greenland. The maximum altitude is FL410. The flight profiles call for a maximum g-force of 10.

A picture of the aircraft as configured for PAO is attached. Note the addition of an external store. We also will enable the ability to release external stores during these operations.

7. Date, Name, and Title (Print or Type), and Signature

Appendix C. Procedures for Issuing Operating Limitations

1. This appendix replaces the information previously contained in the body of the order relating to the issuance of operating limitations. If these instructions conflict with the information in body of this order, follow the guidance in this appendix. Operating limitations generally applicable to nonstandard aircraft are printed on the reverse side of Federal Aviation Administration (FAA) Form 8130-7, Special Airworthiness Certificate (figure 4-1 of this order). The operating limitations will be enumerated on a separate sheet, dated, signed, and attached to FAA Form 8130-7. At least the first page of the operating limitations should be typed on FAA-branded paper. FAA-branded paper or an electronic template may be provided to FAA designees for the sole purpose of issuing aircraft operating limitations. Additionally, a fillable PDF file is available on the FAA Regulatory and Guidance Library website, http://rgl.faa.gov, for assistance in drafting the operating limitations.

2. Experimental certificates for the purpose of exhibition, air racing, operating amateur-built aircraft, or operating light-sport aircraft (LSA) may have operating limitations issued in two phases. Phase I operating limitations are for the applicant to demonstrate compliance with Title 14 of the Code of Federal Regulations part 91, General Operating and Flight Rules, § 91.319(b). This includes a limitation requiring the owner/operator to endorse the aircraft logbook and maintenance records with a statement certifying that the prescribed flight hours and/or landings have been completed, and the aircraft has been shown to comply with § 91.319(b). The owner/operator may then operate in accordance with phase II operating limitations. Usually phase I and phase II operating limitations are issued for an unlimited duration during the initial airworthiness certification. The FAA may elect to issue phase I and phase II limitations separately as necessary in the interest of safety.

3. The operating limitations, as applicable, will be issued as shown below. Operating limitations must be designed to fit the specific situation encountered, which may vary depending on the aircraft type, its condition, operating environment, operator capabilities, and intended use. Do not paraphrase or quote requirements from the United States Code or Code of Federal Regulations into the operating limitations. Also, the FAA may prescribe additional limitations as necessary for safe operation. Changes to the limitations below or additional limitations for purposes other than research and development or showing compliance with regulations must be coordinated with the Aircraft Certification Service, Airworthiness Certification Section (AIR-113), or the responsible office identified in the table. Questions about a specific limitation or changes to that limitation should be directed to the responsible office identified in the table. Additionally, it is recommended that the operating limitations for former military aircraft that weigh more than 9,000 pounds maximum takeoff weight, with turbine power greater than 3,000 pounds of total engine thrust of all engines or 1,000 shaft horsepower of one engine or if it was originally equipped with an ejection seat system be coordinated with AIR-113.

4. When issuing a certificate, review the operating limitations with the applicant to ensure a clear understanding of the limitations. Remind the applicant they must comply with the applicable regulations and emphasize the following rules:

a. Restricted. Refer to §§ 21.181, 45.23, 91.203, and 91.313.

b. Special LSA. Refer to §§ 21.181, 43.11, 45.23, 91.203, and 91.327.

c. Experimental. Refer to §§ 21.181, 45.23, 91.119, 91.180, 91.203, 91.305, 91.319, and 91.817.

d. Limited. Refer to §§ 21.181, 45.23, 91.203, and 91.315.

e. Primary. Refer to §§ 21.181, 91.203, and 91.325.

5. Procedure.

a. Use table C-1 below for issuing operating limitations for the following categories:

(1) Section 21.184—Primary.

(2) Section 21.185—Restricted.

(3) Section 21.189—Limited.

(4) Section 21.190—Light-sport.

(5) Section 21.191—Experimental.

(a) Paragraph (a), Research and development.

(b) Paragraph (b), Showing compliance with regulations.

(c) Paragraph (c), Crew training.

(d) Paragraph (d), Exhibition.

(e) Paragraph (e), Air racing.

(f) Paragraph (f), Market surveys.

(g) Paragraph (g), Operating amateur-built aircraft.

(h) Paragraph (h), Operating primary kit-built aircraft.

(i) Paragraph (i), Operating light-sport aircraft.

b. Start at the top of the table and work down. If the certification basis and/or the notes match the aircraft, issue the limitation. Number the limitations sequentially starting with "1," and place the number of the limitation from the order in parentheses at the end of the limitation. Some limitations have two statements separated by the word "or"; in these cases, issue the appropriate limitation. Do not place the operator's or applicant's name on the limitations. After the last limitation, sign and date the document.

c. Aircraft with very high risk factors or safety of flight issues must have those factors properly mitigated. Restrict operations to a specified geographical area, and prohibit the carriage of passengers, flight over densely populated areas, and night or instrument flight rules (IFR) operations in the following:

(1) Aircraft for which the applicant has surrendered a special LSA airworthiness certificate (§ 21.190) and is applying for an experimental airworthiness certificate (§ 21.191) for the first time, and is not in compliance with § 91.327(b)(3) or (4);

(2) Aircraft for which the manufacturer's or country of origin's emergency checklist requires bailout or ejection in the event of an engine or other system failure;

(3) Any aircraft in which a single system failure will render the aircraft uncontrollable, such as an airplane with a hydraulic flight control system with only one hydraulic pump;

(4) Aircraft unable to comply with § 91.117(a) in normal cruise configuration; and

(5) Rocket-powered aircraft.

Table C-1. Operating Limitations

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
All Operations			
1	184, 185, 189, 190, 191	AIR-113	This aircraft does not meet the airworthiness requirements specified in Annex 8 to the Convention on International Civil Aviation. Operations in civil airspace outside of the United States will require the written permission of the applicable civil aviation authorities (CAA). That written permission must be carried aboard the aircraft together with the U.S. airworthiness certificate and, upon request, be made available to an FAA inspector or the CAA in the country of operation. Operations may be further restricted by the foreign CAA. This may include not allowing use of an airport, requiring specific routing, and restricting flight over specific areas. The operator must comply with any additional limitation prescribed by the CAA when operating in its airspace. (1)
2	190 & 191	AIR-113	No person may operate this aircraft for any other purpose specified on the face of FAA Form 8130-7. These operating limitations do not provide any relief from any applicable law or regulation. This aircraft must be operated in accordance with applicable regulations and the additional limitations prescribed herein. Note that a clearance from air traffic control (ATC) is not authorization for a pilot to deviate from any rule, regulation, operating limitation, or minimum altitude, or to conduct unsafe operation of the aircraft. If ATC issues a clearance that would cause a pilot to deviate from a rule, regulation, or operating limitation, or in the pilot's opinion, would place the aircraft in jeopardy, it is the pilot's responsibility to request an amended clearance. These operating limitations are a part of FAA Form 8130-7 and are to be carried in the aircraft at all times and to be available to the pilot in command of the aircraft. (2)
3	191	AFS-800	This special airworthiness certificate and attached operating limitations are not in effect during public aircraft operations (PAO). Concurrent public/civil operations are not permitted; the aircraft cannot be operated as a civil aircraft and as a public aircraft at the same time. This airworthiness certificate is not in effect during flights related to providing military services (that is, air combat maneuvering, air-to-air gunnery, target towing, electronic countermeasures simulation, cruise missile simulation, and air refueling). These activities are inherent military training activities, not civil activities. The FAA makes the distinction between the authorized flights for experimental purposes, as described in the program letter, and PAO. Before operating this aircraft under this special airworthiness certificate following a PAO, the aircraft must be returned via an approved method to the condition and configuration at the time of airworthiness certification. This action must be documented in the aircraft records. The aircraft records and entries must clearly differentiate between a civil experimental flight per this certificate and any other flights. (3)
4	191(g)	AFS-800	No person may operate this aircraft for other than the purpose of meeting the requirements of § 91.319(b) during phase I flight testing, and for recreation and education during phase II operations. (4)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
5	190	AFS-800	This aircraft may only be operated in accordance with the manufacturer's aircraft operating instructions (AOI), including any requirement for necessary operating equipment specified in the aircraft's equipment list. Night flight and instrument flight rules (IFR) operations are authorized if allowed by the AOI and if the instruments specified in § 91.205 are installed, operational, and maintained in accordance with the applicable requirements of part 91. (5)
6	190 & 191	AFS-300	Application to amend these operating limitations must be made to the local Flight Standards District Office (FSDO) or Manufacturing Inspection District Office (MIDO). (6)
7	190 & 191	For atypical aircraft, coordinate with AFS-800.	The pilot in command of this aircraft must hold _____ category and _____ class certificate or privilege. The pilot in command must hold all required ratings or authorizations and endorsements required by part 61. (7)
8	191	All large aircraft. All turbojet airplanes. Airplanes with 800 or greater total horsepower and V_{NE} greater than 250 knots. AFS-800	The pilot in command must hold— (a) An appropriate type rating (if one has been established); or (b) An experimental aircraft authorization, by make and model, on their pilot certificate; or (c) A temporary letter of authorization (LOA) issued by an FAA Flight Standards Operations Inspector. For single seat or single control aircraft, a qualified instructor may make a logbook endorsement, to allow the airman to be PIC, for the purpose of completing a practical test for the issuance of an experimental aircraft authorization. The endorsement may allow solo operation of the aircraft. The endorsement may be valid for a period up to 30 days. The endorsement must specify the flight conditions authorized (e.g. day, night, IMC) and flying area. The flying area may not exceed 3/8 the fuel range of the aircraft. (8)
9	191	Issue for aircraft that require a copilot and/or flight engineer. AFS-800	Additional required flightcrew members must hold the appropriate airman certificate, that is, pilot or flight engineer. They must meet the qualification, training, and recency experience requirements of part 61 or part 63 as appropriate. Pilots must hold _____ category and _____ class certificate. (9)
10	191	AFS-800	When filing a flight plan, the experimental nature of this aircraft must be listed in the remarks section. (10)
11	191(i)	AFS-800	This aircraft must not be used for banner towing operations or intentional parachute jumping. (11)
12	191(a), (b), (c), (d), (e), (f), (g), & (h)	AFS-800	This aircraft must not be used for towing, including, but not limited to glider towing, banner towing, target towing, or towing electronic receivers or emitters. This aircraft must not be used for intentional parachute jumping. (12)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
13	191	AFS-300	If aircraft, engine, or propeller operating limitations are exceeded outside of planned test conditions, an appropriate entry will be made in the aircraft records. (13)
14	191	All large airplanes, turbine engine airplanes, and turbine rotorcraft. AFS-300	No person may operate this aircraft unless it is maintained in accordance with an inspection program meeting the scope and content described in § 91.409(f). The operator must select and identify in the aircraft maintenance records one of the following programs for the inspection of the aircraft: (a) For type-certificated aircraft, a current inspection program recommended by the manufacturer; or (b) For former military aircraft, an inspection program recommended by the manufacturer or North Atlantic Treaty Organization (NATO) military service; or (c) An FAA-approved inspection program. Note: To extend an inspection interval, the owner/operator must submit a request for that extension with supporting documentation and data to the local FSDO and obtain concurrence from that FSDO. Inspections must be recorded in the aircraft maintenance records showing the following, or a similarly worded, statement: "I certify that this aircraft has been inspected on [insert date] per [identify applicable inspection program] and found to be in a condition for safe operation." (14)
		All other aircraft not described above. AFS-300	No person may operate this aircraft unless within the preceding 12 calendar months it has had a condition inspection performed in accordance with the scope and detail of part 43, appendix D, manufacturer or other FAA-approved programs, and was found to be in a condition for safe operation. The inspections must be recorded in the aircraft maintenance records showing the following, or a similarly worded, statement: "I certify that this aircraft has been inspected on [insert date] in accordance with the [insert either: scope and detail of part 43, appendix D; or manufacturer's inspection procedures] and was found to be in a condition for safe operation." The entry will include the aircraft's total time-in-service (cycles if appropriate), and the name, signature, certificate number, and type of certificate held by the person performing the inspection. (14)
15	191	Former military. AFS-300	This aircraft must not be operated unless it is operated, inspected, and maintained in accordance with appropriate military technical publications and/or manufacturer's recommendations. (15)
16	191(i)	AFS-300	An experimental LSA owner/operator certificated as a repairman for this aircraft under § 65.107, an appropriately rated FAA-certificated mechanic, or an appropriately rated FAA repair station may perform the condition inspection required by these operating limitations. (16)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
17	191(g)	AFS-300	An experimental aircraft builder certificated as a repairman for this aircraft under § 65.104, or an appropriately rated FAA-certificated mechanic, may perform the condition inspection required by these operating limitations. (17)
18	191(a), (b), (c), (d), (e), (f), & (h)	AFS-300	Only FAA-certificated repair stations, FAA-certificated mechanics with appropriate ratings, or a manufacturer as authorized by § 43.3 may perform inspections required by these operating limitations. (18)
19	191(a), (b), (c), (d), (e), (f), (g), (h), & (i)	AFS-300	The aircraft may not be operated unless the replacement for life-limited articles specified in the applicable technical publications pertaining to the aircraft and its articles are complied with in one of the following manners: (a) Type-Certificated Products: Replacement of life-limited parts required by § 91.409(e) applies to experimental aircraft when the required replacement times are specified in the U.S. aircraft specifications or type certificate data sheets. (b) Non-Type-Certificated Products: All articles installed in non-type-certificated products operated under an airworthiness certificate issued for an experimental purpose, in which the manufacturer has specified limits, must include in their program an equivalent level of safety for those articles. These limits must be evaluated for their current operating environment and addressed in the approved inspection program. All articles installed in non-type-certificated products in which the manufacturer has specified limits, must include in their program an equivalent level of safety for those articles. The article must be inspected to ensure the equivalent level of safety still renders the product in a serviceable condition for safe operation. (19)
20	191	AFS-300	For aircraft originally incorporating fatigue life recording systems, the owner/operator must maintain and use the system as prescribed by the aircraft manufacturer and comply with the manufacturer's fatigue life limits. (20)
21	191(c), (d), (e), (f), (h), & (i)	AFS-300	The geographically responsible FSDO where the aircraft is based must be notified, and its response received in writing, before flying this aircraft after incorporation of a major change as defined by § 21.93. The FSDO may require demonstrated compliance with § 91.319(b). (21)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
22	191(g)	AFS-300	After incorporating a major change as described in § 21.93, the aircraft owner is required to reestablish compliance with § 91.319(b) and notify the geographically responsible FSDO of the location of the proposed test area. The aircraft owner must obtain concurrence from the FSDO as to the suitability of the proposed test area. If the major change includes installing a different type of engine (reciprocating to turbine) or a change of a fixed-pitch from or to a controllable propeller, the aircraft owner must fill out a revised FAA Form 8130-6 to update the aircraft's file in the FAA Aircraft Registration Branch. All operations must be conducted under day visual flight rules (VFR) conditions over a sparsely populated area in compliance with § 91.305. The aircraft must remain in flight test for a minimum of 5 hours. The FSDO may require additional time (more than 5 hours) depending on the extent of the modification. Persons nonessential to the flight must not be carried. The aircraft owner must make a detailed aircraft logbook and maintenance records entry describing the change before the test flight. Following satisfactory completion of the required number of flight hours in the flight test area, the pilot must certify in the records that the aircraft has been shown to comply with § 91.319(b). Compliance with § 91.319(b) must be recorded in the aircraft records with the following, or a similarly worded, statement: "I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during the flight testing: speeds V_{SO} _____, V_X _____, and V_Y _____, and the weight _____, and CG location _____ at which they were obtained." (22)
23	191	Former military. AIR-113	No weapons or special military mission systems may be added to the aircraft.(23)
24	187 & 191	Multipurpose. or PC/modifier procedure per paragraph 475 of this order. AFS-300	When changing between operating purposes of a multipurpose certificate, the operator must determine that the aircraft is in a condition for safe operation and appropriate for the purpose intended. A record entry will be made by an appropriately rated person to document that finding in the aircraft records. (24) or Changing between operating purposes of a multipurpose certificate must be accomplished in accordance with [describe the production certificate holder's approved operating procedure, for example, ABC Aircraft Co. Experimental Operating Procedure No. 12 (dated)]. (24)
25	190 & 191(i)	AFS-800	The pilot may only conduct the flight maneuvers authorized in the AOI. (25)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
26	191	Former military turbine airplanes. AFS-800	Preflight planning runway length requirements: Takeoff is prohibited unless takeoff planning determines it is possible to stop the airplane safely on the runway, as shown by the accelerate-stop distance data. For aircraft without accelerate-stop distance data, the airplane must be able to safely stop within the effective length of the runway, from any point during the takeoff, before reaching 105 percent of V_{MCA} or 115 percent of the power-off stalling speed in the takeoff configuration, whichever is greater. In addition, the aircraft must be able to clear all obstacles by at least 50 feet vertically. Landing will not be attempted unless landing planning determines that a full stop landing can be made within 60 percent of the effective length of the runway from a point 50 feet above the runway. When calculating takeoff or landing performance, corrections must be made for any runway gradient. Performance data based on still air may be corrected by taking into account not more than 50 percent of any reported headwind component and not less than 150 percent of any reported tailwind component. Calculations may not include the use of reverse thrust or drag chute. (26)
27	191(d) & (e)	AFS-300	The owner/operator must submit an annual program letter to the geographically responsible FSDO where the aircraft is based. A copy of the current program letter and any amendments must be carried on board the aircraft any time that the aircraft is being operated. The program letter must include the following information: • The aircraft's home base, • The name of the person responsible for the operation and maintenance of the aircraft, • A list of events at which the aircraft will be [exhibited/raced] (the list may be amended as necessary), • The estimated time or number of flights, and • The areas over which the aircraft will be flown. (27)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
28	191	Ejection seat installed or aircraft originally had an ejection seat. AFS-300, except AFS-800 for pilot/passenger training program.	Aircraft equipped with live ejection seats must be clearly externally marked to ensure emergency personnel are aware of the hazard presented by the system. Live ejection seat systems must be maintained and inspected in accordance with the manufacturer's procedures or U.S./NATO applicable orders. The manufacturer or military service must approve any modification to the seat or parts substitution. The manufacturer or military service must have approved the ejection seat system, as configured, for installation in the aircraft. Live ejection seat systems must be secured in accordance with the manufacturer's procedures or U.S./NATO technical orders to prevent inadvertent operation of the system any time the aircraft is parked or out of service. Pilots operating aircraft and passengers of aircraft equipped with an ejection propellant system, whether armed or not armed, must satisfactorily complete an FAA-approved ejection seat training program for the pilot and the passenger.(28)
29	191(d) & (e)	AFS-300	When an aircraft's home base is changed or there is a transfer of ownership, the owner/operator will, within 30 days— • Submit a new program letter to the geographically responsible FSDO. • If an accepted or approved inspection program is specified in these operating limitations, submit a copy to the geographically responsible FSDO. (29)
30	191	All aircraft equipped or originally equipped with drag chute, such as MiG-21, MiG-23. F-104. F-4. AFS-800	The drag chute must be maintained and packed by trained personnel. (30)
31	191	All aircraft equipped or originally equipped for in-flight refueling, such as MiG-21. MiG-23. F-104. F-4. AFS-800	Fueling the aircraft with the engine operating is prohibited. (31)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
32	191(d) & (e)	AFS-800	Operation is restricted to airports that are within airspace class C, D, E, or G, except in the case of a declared emergency or authorized operations under an airshow waiver. (32)
33	191	All aircraft using hydrazine fuel, such as F-16. AFS-800	Airport operations are prohibited for aircraft equipped with a hydrazine-based emergency power unit (EPU), unless the following are met: (a) Trained ground support personnel available (that is, secure EPU before shutdown). (b) A trained emergency hydrazine response team (using the same training and guidance used by the U.S. Air Force) that is capable of responding as specified in § 139.319(h). (c) Permission from the airport manager. (33)
The following limitations only apply during phase I.			
34	191(d), (e), (g), (h), & (i)	AFS-800	No person may operate this aircraft for other than the purpose of meeting the requirements of § 91.319(b). The pilot in command must comply with § 91.305 at all times. This aircraft is to be operated under VMC, day only. This aircraft must be operated for at least _____ hours with at least_____ takeoffs and landings in this geographical area: [The area must be described by radius, coordinates, navigational aids, and/or landmarks. The size of the area must be that required to safely conduct the anticipated maneuvers and tests.] This aircraft may only operate from [identify name of airport(s)]. (34)
35	191(d), (e), & (h)	AFS-800	No person may be carried in this aircraft during flight unless that person is a required flightcrew member. (35)
36	191(g) & (i)	AFS-800	Unless operating in accordance with AC 90-116, *Additional Pilot Program for Phase I Flight Test*, only the minimum crew necessary to fly the aircraft during normal operations may be on board. (36)
37	191(d), (e), (h), & (i)	AFS-800	Upon completion of phase I flight testing, the following or similar statement must be recorded in the aircraft records: "I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operation. The flight test was completed under the following conditions: maximum operating weight, maximum demonstrated airspeed, minimum demonstrated airspeed, and center of gravity range." (37)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
38	191(g)	AFS-800	Following satisfactory completion of the required number of flight hours in the flight test area, the pilot must certify in the records that the aircraft has been shown to comply with § 91.319(b). Compliance with § 91.319(b) must be recorded in the aircraft records with the following, or a similarly worded, statement: "I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during the flight testing: speeds V_{SO} _____, V_X _____, and V_Y _____, and the weight _____ and CG location _____ at which they were obtained." (38)
39	191(d), (e), (g), & (i)	Aerobatic. AFS-800	During phase I test flight operations, aerobatic maneuvers intended to be performed during phase II must be satisfactorily accomplished and recorded in the aircraft records. Aerobatic flight testing is not complete until sufficient flight experience has been gained to establish that the aircraft is satisfactorily controllable during the aerobatic maneuver tested. Upon completion of flight testing, the owner/operator must make the following or similar entry in the aircraft records: "I certify that the following aerobatic maneuvers have been test flown, and that the aircraft is controllable throughout the maneuvers' normal range of speeds. The flight-tested aerobatic maneuvers and speeds are _____ at _____, _____ at _____, _____ at _____, and _____ at _____." During phase II operations, aerobatic maneuvers that were not documented per this limitation may not be performed. The owner may place the aircraft back into phase I for the sole purpose of adding additional aerobatic maneuvers to the aircraft authorized maneuvers. (39)
40	191(d), (e), (g), (h), & (i)	AFS-800	If the aircraft will have removable externally mounted equipment, it must be test flown in all configurations. An entry must be made in the aircraft records indicating the configurations flight tested, unless the original manufacturer's flight test data for that equipment is included in the aircraft limitations. If relying on the manufacturer's data, the aircraft and load must conform to the manufacturer's design and be maintained to manufacturer's instructions. Otherwise, the aircraft owner/operator must conduct test flights in all configurations and make an entry in the aircraft records indicating the configurations flight tested. (40)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
The following limitations only apply during phase II.			
41	191	Refer to paragraphs 3 and 5c of this appendix. AFS-800	Day VFR flight operations are authorized. Night flight operations are authorized if the instruments specified in § 91.205(c) are installed, operational, and maintained in accordance with the applicable requirements of part 91. (41)
		191(b), (f), (g), (h), & (i) AFS-800	Instrument flight operations are authorized if the instruments specified in § 91.205(d) are installed, operational, and maintained in accordance with the applicable requirements of part 91. All maintenance or inspection of this equipment must be recorded in the aircraft maintenance records and include the following items: date, work performed, and name and certificate number of person returning aircraft to service. (41)
		191(a), (c), (d), & (e) AFS-800	Instrument flight operations are authorized if the instruments specified in § 91.205(d) are installed, operational, and maintained in accordance with the applicable requirements of part 91. The pilot in command must have a method to comply with the § 91.319(c) prohibition from operating over densely populated areas or in congested airways. All maintenance or inspection of this equipment must be recorded in the aircraft maintenance records and include the following items: date, work performed, and name and certificate number of person returning aircraft to service. (41)
42	191(c), (d), (e), (f), (g), (h), & (i)	AFS-800	The pilot in command must not perform any maneuvers that have not been flight tested or operate the aircraft outside the weight, airspeeds, and center of gravity limits tested. (42)
43	191(d), (e), (g), (h), & (i)	Issue if applicable, refer to paragraphs 3 & 5c of this appendix. AFS-800	The carriage of passengers is prohibited. (43)
44	191(a), (b), (c), (d), (e), (f), (g), (h), & (i)	Issue if applicable, refer to paragraphs 3 & 5c of this appendix. or PC/modifier procedure per paragraph 475 of this order. AFS-800	All flights must be conducted within the geographical area described as follows (there may be areas within the geographical area that are not suitable for operation and may include ingress/egress routes). The area must be described by radius, coordinates, navigational aids, and/or landmarks. The size of the area must not be more than one-half the range of the aircraft from the aircraft's home base airport. Flight routes may be defined beyond this range for moving the aircraft to a maintenance facility that is identified in the program letter. (44) or All flights must be conducted within the geographical area described in [describe the production certificate holder's approved operating procedure, for example, ABC Aircraft Co. Experimental Operating Procedure No. 12 (dated)]. (44)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
45	191(d) & (e)	Unable to comply with § 91.117(a) in normal cruise configuration. Manufacturer's or country of origin's emergency checklist requires bailout or ejection in the event of an engine or other system failure. Aircraft in which a single system failure will render the aircraft uncontrollable. Aircraft that routinely perform PAO. AFS-800	All proficiency/practice flights must be conducted within the geographical area described as follows: _____, but that area will not be more than one-half the range of the aircraft from the aircraft's home base airport. An exception is permitted for proficiency flying outside of the area stated above for organized formation flying, training, or pilot checkout in conjunction with a specific event listed in the applicant's program letter (or amendments). Flights for maintenance of the aircraft are permitted outside the defined proficiency area. (Maintenance, as defined in § 1.1, is the reference for the purpose of these flights.) The maintenance performed in connection with the flight must be recorded in the aircraft records and include the following items: date, work performed, and name and certificate number of person returning aircraft to service. (45)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
46	191	Refer to paragraph 5c of this appendix. AFS-800	Flight over a densely populated area or in a congested airway is prohibited. (46) or
		All lighter-than-air. All gliders. Amateur-built. Primary kit-built. Experimental LSA.	Flight over a densely populated area or in a congested airway is authorized for the purpose of takeoff or landing; or unless sufficient altitude is maintained to make a safe emergency landing in the event of a power unit failure, without hazard to persons or property on the ground. (46)
		All others	Flight over a densely populated area or in a congested airway is authorized in accordance with § 91.319(c) only for the purpose of takeoff and landing. The area on the surface described by the term "only for the purpose of takeoff and landing" is the traffic pattern. For the purpose of this limitation, the term "only for the purpose of takeoff and landing" does not allow multiple traffic patterns for operations such as training or maintenance checks. This *does not* restrict a go-around/rejected landing for safety reasons. When avoiding populated areas, aircraft speed and weight must be considered. The information in FAA Order 8900.1, *Flight Standards Information Management System (FSIMS)*, regarding set-back distances from spectator areas for aviation events such as air shows or air races may assist in determining a suitable space to fly the aircraft. (46)
47	191(a) & (b) issue limitation 47, 48 or 49	Only for RVSM certification purposes. AFS-800	Operations in Reduced Vertical Separation Minimum (RVSM)-designated airspace may be allowed under § 91.180(b) for aircraft certification and development purposes. Refer to part 91 and the Aeronautical Information Manual. (47)
48	191(a), (b), (c), (d), (e), (f), & (g)	Only for aircraft capable of non-stop climb to FL430. AFS-800	Operations in RVSM-designated airspace may be allowed under § 91.180(b) for climbing/descending through RVSM flight levels without intermediate level-off to or from flight levels above RVSM airspace. Refer to part 91 and the Aeronautical Information Manual. (48)
49	191(a), (b), (c), (d), (e), (f), & (g)	Aircraft capable of flight above FL280 and not capable of nonstop climb to FL340. AFS-800	Flight in RVSM-designated airspace is prohibited. (49)

Table C-1. Operating Limitations (Continued)

No.	Certification Basis (14 CFR part 21)	Notes/Applicability/ Responsible Office	Limit
50	191(d), (e), (g), (h), & (i)	Other than former military. AFS-300	This aircraft is prohibited from flight with any externally mounted equipment unless the equipment is mounted in a manner that will prevent in-flight jettison. The aircraft must be configured as documented in the aircraft's flight test records or as allowed in the original manufacturer's aircraft limitations. If relying on the manufacturer's data, the aircraft must conform to the manufacturer's design and be maintained to manufacturer's instructions. (50)
51	189 & 191(c), (d), & (e)	Former military. AFS-300	This aircraft is prohibited from flight with any externally mounted equipment unless the equipment is mounted in a manner that will prevent in-flight jettison. Installation of external stores (pylon and equipment) or external fuel tanks not approved by the manufacturer or the original military operator is prohibited. No change in external loading for the aircraft (for example, a change in a pylon, rack, or external store) from configurations approved by the manufacturer or original military operator is allowed, except to prevent jettison. (51)
52	191(d)	AFS-800	No person may be carried in this aircraft during the exhibition of the aircraft's flight capabilities, performance, or unusual characteristics at air shows, or for motion picture, television, or similar productions, unless essential for the purpose of the flight. (Refer to FAA Order 8900.1.) Persons may be carried during flights to and from any event or during proficiency/currency flying, limited to the design seating capacity of the aircraft and subject to the regulatory prohibition on compensation. (52)
53	191	Glider. AFS-800	The following placard must be displayed in the cockpit, in full view of the pilot: "NOTE: No person may exceed the designer's or builder's recommended limitations as follows: maximum gross weight _____; CG limits _____; airplane tow speed _____; maximum airspeed in smooth air _____; and maximum airspeed in rough air _____." (53)
54	191(a)	AFS-800	No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight. (54)
55	191(b) & (c)	AFS-800	No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight. (55) or Persons may be carried in accordance with [describe the production certificate holder's approved operating procedure, for example, ABC Aircraft Co. Experimental Operating Procedure No. 12 (dated)]. (55)

Appendix D. Issuance of U.S. Standard Airworthiness Certificates for New Aircraft Manufactured Outside the United States

1. Purpose. This appendix describes the procedures for issuance of Federal Aviation Administration (FAA) Form 8100-2, Standard Airworthiness Certificate, for new aircraft manufactured in other countries that are to be placed on the U.S. registry. This procedure is intended primarily for guidance to the U.S. aircraft owner, the civil aviation authority (CAA), the manufacturer, and FAA Flight Standards Service, Aircraft Registration Branch (AFS-750). For the purpose of this procedure, a U.S. aircraft owner may be represented by an agent as indicated in Title 14 of the Code of Federal Regulations (14 CFR) part 21, Certification Procedures for Products and Parts, § 21.173.

Note: This procedure does not relieve persons involved in the standard airworthiness certification process from any responsibilities or legal requirements of part 21.

2. Applicability.

a. The FAA will at times seek assistance from bilateral CAAs in the final processing, dating, and delivery of FAA Form 8100-2 for newly manufactured aircraft destined for export to the United States. The FAA issues the form and the CAA provides assistance with specific process steps. The certificate issuing office only may apply the procedure identified in this appendix when approved by AIR-100 and the directorate with responsibility for importing the aircraft. Furthermore, the use of this procedure is only allowed if no conflict exists with the bilateral agreement of the State of Manufacture.

b. Upon request from the U.S. aircraft owner, or the CAA of the State of Manufacture, the FAA may, at its discretion, authorize the CAA to act on its behalf. If authorized, this activity will be performed in accordance with the detailed procedures identified in this appendix, and only for aircraft that are—

(1) Newly manufactured in that country/jurisdiction,

(2) Properly placed on the U.S. registry,

(3) Fully compliant with the requirements of the applicable FAA type certificate (TC),

(4) Presently in a condition for safe operation, and

(5) Accompanied by an Export Certificate of Airworthiness (C of A) from the exporting CAA.

3. Procedure.

a. The aircraft manufacturer notifies the CAA of the State of Manufacture that an aircraft, identified in paragraph 3b of this appendix, has been sold to a named U.S. owner and is to be placed on the U.S. registry. As a result, the U.S. aircraft owner will be requesting issuance of FAA Form 8100-2 at the point of manufacture.

b. The U.S. owner submits to AFS-750 a request for assignment of a U.S. identification number for the particular aircraft. This request will include the following information:

(1) U.S. owner's name,

(2) Manufacturer's name,

(3) Aircraft type,

(4) Aircraft model number, and

(5) Aircraft serial number.

c. The U.S. owner, upon receipt of the ID number, supplies it to the aircraft manufacturer for permanent marking of the aircraft (refer to part 45, Identification and Registration Marking). The U.S. owner also provides this information to the CAA for its use. This ID number will become the final registration number.

d. The U.S. owner notifies the manager of the FAA office that issues standard airworthiness certificates for import aircraft of the desire to have FAA Form 8100-2 issued at the point of manufacture. The U.S. owner also provides the FAA office with FAA Form 8130-6, sections I, II, and III completed as applicable. All entries should be typed or printed legibly. Certain items in section III are to be left blank until the final application is completed, because the information for these items is not known until the aircraft's final delivery. FAA Form 8130-6 is considered to be "initial" until the items are completed. The items to be left blank are—

(1) The status of compliance up to the most current and applicable airworthiness directives (AD) as indicated in the airworthiness directives block of subsection B, Aircraft Certification Basis;

(2) The recording of total airframe hours (including production flight test time) in the applicable block of subsection C, Total Airframe Hours; and

(3) The date of the application as indicated in subsection D, Certification.

Note: FAA Form 8130-6 should be filled out in accordance with paragraph 801 of this order. Applicants should refer to AC 21-12, *Application for U.S. Airworthiness Certificate, FAA Form 8130-6*, for guidance on completion of this form.

e. The CAA notifies the manager of the FAA certificate issuing office of its desire to act on behalf of the FAA in the delivery of FAA Form 8100-2 for the particular aircraft. The following information is to be supplied by the CAA:

(1) ID number of the aircraft,

(2) Name of the U.S. aircraft owner, and

(3) Scheduled aircraft delivery date.

Note: A letter of ongoing support from an individual CAA can be the method of FAA notification upon acceptance by the FAA certificate issuing office.

f. The FAA certificate issuing office prepares FAA Form 8100-2, including two copies.

(1) List in block 5 any existing exemptions granted by the FAA that are applicable to the aircraft, as cited on the type certificate data sheet (TCDS) or other official correspondence.

(2) Leave the Date of Issuance block blank.

(3) Sign the original and two copies and forward them to the designated CAA point of contact.

(4) The following sentence must be included in the transmittal letter from the FAA certificate issuing office: "Do not deliver this standard airworthiness certificate, issued for the subject aircraft above, until AFS-750 or this office has notified you that the aircraft has been properly registered."

Note: If AFS-750 notifies the CAA directly, it also is to notify the FAA certificate issuing office that the aircraft is registered and that the CAA has been notified.

g. Data Plate Preparation and Installation.

(1) The aircraft manufacturer installs an ID plate on the aircraft that meets the requirements of § 45.11 upon completion of all necessary flight tests and inspections. The aircraft manufacturer also applies the nationality and registration marks to the aircraft in accordance with § 45.21.

(2) For aircraft manufactured outside the United States pursuant to a § 21.29 TC, the TC number on the data plate may be either the U.S. TC number or the TC number of the State of Manufacture. The data plate information should provide a means to determine the applicable U.S. TC number if the State of Manufacture's TC number is used. Also, not all countries use the term "production certificate," and even within the United States, not all aircraft are manufactured under a production certificate (PC). Regarding PC number entries, the current FAA regulations require an FAA PC number, if any. However, aircraft that are produced outside the United States to the requirements of a § 21.29 TC will not have an associated FAA PC number. The data plate may include the associated production approval number issued by the CAA of the State of Manufacture.

(3) The FAA has, in some cases, granted regulatory exemptions permitting alternate mounting locations of aircraft ID plates for certain aircraft of qualifying air carriers. Any aircraft whose ID plate is mounted in a location other than that which is required in § 45.11 must be covered by the provisions of a current regulatory exemption for alternate ID plate location.

h. The CAA issues an Export C of A for the aircraft after completing all tasks and inspections necessary to determine that the aircraft conforms to the FAA-approved type design and is in a condition for safe operation. This certificate must contain the certification statement prescribed in the applicable FAA TCDS under the Import Requirements heading.

> **Note:** If any nonconformities, deviations, or exceptions exist, the CAA must obtain written concurrence and acceptance of these conditions from the FAA certificate issuing office before delivering FAA Form 8100-2 for the subject aircraft. Conditions of this nature may disqualify the aircraft from receiving the intended FAA Form 8100-2 due to its inability to fully meet the requirements of the U.S. TC.

i. Additional Work Performed After Issuance of the CAA's Export C of A.

(1) If any additional work (for example, modifications, alterations, or repairs) is performed on the aircraft by the manufacturer after issuance of the CAA's Export C of A, and before receipt of the U.S. standard airworthiness certificate, the following must be accomplished:

(a) The work must be controlled, documented, and completed by the manufacturer under its CAA-approved production quality system and associated procedures.

(b) The exporting CAA will review the manufacturer's additional completed work to ensure the aircraft continues to remain in full compliance with its FAA-approved type design and is in a condition for safe operation. If the CAA is satisfied that these requirements are fully met, the U.S. standard airworthiness certificate may be released to the registered owner/operator in accordance with paragraph 3h of this appendix.

(2) If any additional work (for example, modifications, alterations, or repairs) is performed on the aircraft by someone other than the manufacturer (which also may include any other persons or organizations under the direct control of the manufacturer), after issuance of the CAA's Export C of A, the aircraft possibly may be disqualified from receipt of the U.S. standard airworthiness certificate issued under this special procedure.

> **Note:** The CAA is not responsible for the review and acceptance of any additional work performed outside of its direct control and oversight. This includes any additional work (as described above) performed on the aircraft directly by the new U.S. owner before receiving the U.S. standard airworthiness certificate. The FAA certificate issuing office could not, therefore, be assured of the continued validity of the CAA's Export C of A upon which this special procedure and the issuance of the U.S. standard airworthiness certificate are based.

(3) The new U.S. owner/operator (or their authorized agent) may at times perform the various functions and activities which may be necessary to prepare the newly acquired aircraft for their departure flight from the manufacturer and placement into operation.

(a) These functions and activities (for example, preoperational servicing/maintenance, preflight inspections, aircraft systems functional checks, navigation/communication equipment, and operational software installation) must be properly documented when necessary and may be undertaken after issuance of the CAA's Export C of A and before receipt of the U.S. standard airworthiness certificate.

(b) After the completion of these tasks, the new U.S. owner/operator must ensure the aircraft has remained in full compliance to the FAA-approved type design and continued condition for safe operation. The CAA may, at its discretion, monitor these functions and activities in advance of the release of the U.S. standard airworthiness certificate.

(4) The FAA certificate issuing office should be contacted by the CAA when any problems arise pertaining to these requirements which would preclude the release and delivery of the U.S. standard airworthiness certificate to the new U.S. owner/operator.

j. The aircraft manufacturer and the U.S. owner will request the CAA to supply the U.S. owner with a statement concerning the aircraft's current registration status in its State of Manufacture. The statement concerning the aircraft's current registration must attest that the particular aircraft previously has not been registered or been removed from the foreign registry if previously registered. Refer to part 47, Aircraft Registration, §§ 47.15(a)(1) and 47.37(b).

> **Note:** For aircraft manufactured in countries that require domestic registration as a condition for production flight checks, this step may entail some delay in final U.S. registration. Such delay may be minimized by faxing the current registration status statement directly from the CAA to AFS-750 upon completion of the production flight checks and removal of the aircraft from the registry in the State of Manufacture. The faxed statement should identify the aircraft and the name of the U.S. owner as described in paragraph 3b of this appendix.

k. The U.S. owner submits to AFS-750 all information required to obtain aircraft registration. Permanent registration will be received via Aeronautical Center Form 8050-3, Certificate of Aircraft Registration. If the U.S. aircraft owner desires to receive a temporary registration before receiving the permanent one, a request also should be made at this time for Form AFS-750-FAX-4. This form serves as a temporary Certificate of Aircraft Registration. The required information for aircraft registration consists of—

(1) Aeronautical Center Form 8050-1, Aircraft Registration Application, including the original Aeronautical Center Form 8050-2, Aircraft Bill of Sale, or other evidence of ownership as indicated in § 47.11;

(2) The appropriate fee (refer to §§ 47.17 and 47.31); and

(3) The registration status statement received from the CAA in paragraph 3j of this appendix.

l. The U.S. owner supplies the CAA with a complete FAA Form 8130-6 after receipt of Aeronautical Center Form 8050-3 or Form AFS-750-FAX-4. Sections IV and V, and the entire reverse side of FAA Form 8130-6 are to be left blank. However, the items left blank from the initial form, and one additional item, should now be completed as follows:

(1) The status of compliance up to the most current and applicable ADs as indicated in the Airworthiness Directives block of subsection B.

(2) The recording of total airframe hours (including production flight test time) in the applicable block of subsection C.

(3) The final date entered by the applicant must be the same as or later than the date of the Export C of A issued by the CAA of the State of Manufacture.

(a) The date cannot be later than the date entered on FAA Form 8100-2 for the aircraft.

(b) The signature of the person in subsection D must be that of the registered owner (or an authorized employee of the corporation or company signified as the registered owner) identified under subsection A of section III. If the signature is other than one of these persons, the application must be accompanied with a notarized letter or current power of attorney delegating the authority to act as an agent on the owner's behalf to apply for the airworthiness certificate.

(4) The specific 14 CFR reference listed in section III, subsection C, should be crossed out and changed from § 91.173 to § 91.417.

m. The CAA verifies the following before delivery of FAA Form 8100-2:

(1) The registered owner identified on FAA Form 8130-6 is still the same person, company, or corporation confirmed as the final registered owner by AFS-750 on Aeronautical Center Form 8050-3 or Form AFS-750-FAX-4.

(2) The aircraft's N-Numbers painted on the exterior of the fuselage are identical to those assigned to the aircraft by AFS-750 on Aeronautical Center Form 8050-3 or Standard Form 14. In addition, the aircraft markings must meet the requirements of part 45.

(3) The aircraft's nationality and registration marks entered on FAA Form 8100-2, block 1, are identical to those assigned to the aircraft by AFS-750 on Aeronautical Center Form 8050-3 or Form AFS-750-FAX-4.

(4) The aircraft's ID plate has all of the required data and proper information, and is mounted in the proper location on the aircraft.

n. The CAA finalizes and installs FAA Form 8100-2 in the aircraft as follows:

(1) The specific date on which the form was issued is entered in the Date of Issuance block on the original and on the two copies. Date entries are to include the month identifier in either a three-letter format or completely spelled out, for example, "Mar" or "March." Date of issuance entries must be typewritten or made with another appropriate instrument, for example, a mechanical date stamping device for the date entry. No handwritten entries are permitted.

(2) The original FAA Form 8100-2 is then installed in the aircraft and the following statement is entered into the aircraft logbook: "U.S. Standard Airworthiness Certificate, issued [date], has been installed in the aircraft on behalf of [FAA certificate issuing office] on [date]."

> **Note:** The person from the CAA performing the final issuance and installation of FAA Form 8100-2 in the aircraft must sign the aircraft logbook and include a functional title or other evidence of authorization to act on behalf of the CAA.

o. The CAA faxes the documents listed below to the FAA certificate issuing office before the first flight of the aircraft under FAA Form 8100-2. This action is necessary because the FAA certificate issuing office must be in possession of legal documentation in the form of on-hand file records of proper airworthiness certification before the aircraft's first flight.

(1) A copy of the Export C of A.

(2) A copy of Aeronautical Center Form 8050-3 or Form AFS-750-FAX-4.

(3) A copy of the completed and dated FAA Form 8100-2.

p. The CAA retains one copy of FAA Form 8100-2 and forwards the following documents to the manager of the FAA certificate issuing office:

(1) The remaining copy of the dated FAA Form 8100-2,

(2) The original and one copy of the completed FAA Form 8130-6,

(3) The original and one copy of the Export C of A issued by the CAA of the State of Manufacture, and

(4) A copy of Aeronautical Center Form 8050-3 or Form AFS-750-FAX-4.

q. The U.S. owner takes delivery of the aircraft and installs either Aeronautical Center Form 8050-3 or Standard Form 14 (pending receipt of Aeronautical Center Form 8050-3) in the aircraft. The aircraft may then be flown or otherwise delivered to the Unites States.

r. The FAA certificate issuing office endorses FAA Form 8130-6 by entering a statement on the form in a location that can be read clearly. At a minimum, this statement is required to contain the following information:

(1) A statement indicating that the standard airworthiness certificate was issued on the basis of the C of A for Export No. [insert number where applicable], and

(2) The issuing CAA's name and the Export C of A's date of issuance.

s. The FAA certificate issuing office then forwards the application, along with the copy of FAA Form 8100-2 and the original Export C of A to AFS-750 for permanent filing.

t. The U.S. owner receives Aeronautical Center Form 8050-3 from AFS-750 if one has not already been obtained.

4. Administrative Requirements.

a. The FAA requests that the initial FAA Form 8130-6 be received at least 20 days before the expected delivery date of the aircraft to allow ample time for authority coordination, certificate preparation, and final dispatch and delivery. An application received with less than the 20-day processing requirement will be handled on a case-by-case basis as available FAA resources allow.

b. The FAA normally will not dispatch FAA Form 8100-2 more than 45 days in advance of the expected delivery date unless specific circumstances warrant an earlier dispatch. Certificates will not be dispatched more than 45 days in advance for future production runs, anticipated long-range customer deliveries, etc.

c. In the event that FAA Form 8100-2 is suspected of being lost in the mail, the FAA will prepare a duplicate/replacement form only after a 10-day period has elapsed from the date of the mailing of the original form. All other reasons necessitating the issuance of a duplicate/replacement form will be handled on a case-by-case basis as available FAA resources allow.

d. Any costs of overnight courier services for the dispatch and delivery of forms needing expedited delivery to the CAA point of contact will be paid for by the applicant and/or the manufacturer.

e. The AIR-100 approved certificate issuing office may delegate these functions to Flight Standards Service aviation safety inspectors, as necessary.

Appendix E. Forms Listing and Availability

1. The following forms are available through normal distribution channels. Not all Federal Aviation Administration (FAA) forms are available for download on the FAA website. Those FAA forms not available for download must be ordered from the FAA Logistics Center, AML-8000, P.O. Box 25082, Oklahoma City, Oklahoma, 73125. The primary method of ordering forms from the Logistics Center is by using the Logistics Inventory System (LIS), available in most FAA field offices. If unable to order by computer, call the Logistics Center at 405-954-8900 (ask for the FAA Forms Inventory Manager). You may also order forms by calling the FAA Logistics Center Customer Care Center, AML-30, at 405-954-3793 or toll free at 1-888-322-9824.

Table E-1. Available Forms

Form Number	Title	National Stock Number (if applicable)	Availability
FAA Form 337	Major Repair and Alteration	N/A	FAA website
FAA Form 8100-1	Conformity Inspection Record	N/A	FAA website
FAA Form 8100-2	Standard Airworthiness Certificate	0052-00-040-8001	Order
FAA Form 8130-1	Application for Export Certificate of Airworthiness	N/A	FAA website
FAA Form 8130-3	Authorized Release Certificate, Airworthiness Approval Tag	0052-00-012-9005	FAA website
FAA Form 8130-4	Export Certificate of Airworthiness	0052-00-010-3001	Order
FAA Form 8130-6	Application for U.S. Airworthiness Certificate	N/A	FAA website
FAA Form 8130-7	Special Airworthiness Certificate	0052-00-693-4000	Order
FAA Form 8130-9	Statement of Conformity	N/A	FAA website
FAA Form 8130-10	Surplus Military Aircraft Inspection Record	N/A	FAA website
FAA Form 8130-11	Checklist and Inspection Record	N/A	FAA website
FAA Form 8130-12	Eligibility Statement, Amateur-Built Aircraft	N/A	FAA website
FAA Form 8130-15	Light-Sport Aircraft/Kit Statement of Compliance	N/A	FAA website
FAA Form 8130-31	Statement of Conformity - Military Aircraft	N/A	FAA website

2. The following forms are not available through normal distribution channels.

a. Aeronautical Center Form 8050-64, Assignment of Special Registration Numbers, available from the FAA Aircraft Registry.

b. Aeronautical Center Form 8050-72, Export Certificate Number Assignment Card, available from the FAA Aircraft Registry.

Appendix F. Acronyms

14 CFR	Title 14 of the Code of Federal Regulations
49 U.S.C.	Title 49 of the United States Code
AC	Advisory Circular
ACO	Aircraft Certification Office
AD	Airworthiness Directive
AEG	Aircraft Evaluation Group
AFS	Flight Standards Service
AFS-300	Aircraft Maintenance Division
AFS-750	Aircraft Registration Branch
AFS-800	General Aviation and Commercial Division
AIR	Aircraft Certification Service
AIR-40	International Policy Office
AIR-100	Design, Manufacturing, and Airworthiness Division
AIR-113	Airworthiness Certification Section
AOI	Aircraft Operating Instructions
ASI	Aviation Safety Inspector
ASTM	ASTM, International
ATC	Air Traffic Control
ATF	Bureau of Alcohol, Tobacco, Firearms, and Explosives
BAA	Bilateral Airworthiness Agreement
BASA	Bilateral Aviation Safety Agreement
CAA	Civil Aviation Authority
CAGE	Commercial and Government Entity
CAM	Civil Aeronautics Manual
CAMP	Continuous Airworthiness Maintenance Program
CAR	Civil Air Regulation
CFR	Code of Federal Regulations**CG** Center of Gravity
CHDO	Certificate Holding District Office
CMACO	Certificate Management Aircraft Certification Office
CMO	Certificate Management Office
CMU	Certificate Management Unit
C of A	Certificate of Airworthiness
DA	Department of the Army
DAR	Designated Airworthiness Representative
DD 1427	DOD Form 1427, Notice of Award, Statement, and Release Document
DER	Designated Engineering Representative
DMIR	Designated Manufacturing Inspection Representative
DMO	Directives Management Officer
DOD	Department of Defense
DOT	Department of Transportation
DRMO	Defense Reutilization Marketing Office
EAA	Experimental Aircraft Association
EASA	European Aviation Safety Agency
ELT	Emergency Locator Transmitter

EPU Emergency Power Unit
FAA Federal Aviation Administration
FSIMS Flight Standards Information Management System
FSCAP Flight Safety-Critical Aircraft Part
FSDO Flight Standards District Office
GPO Government Printing Office
ICA Instructions for Continued Airworthiness
ICAO International Civil Aviation Organization
ID Identification
IFO International Field Office
IFR Instrument Flight Rules
IPA Implementation Procedures for Airworthiness
IPC Illustrated Parts Catalog
JAR Joint Aviation Requirements
LBA Luftfahrt-Bundesamt
LEP List of Effective Pages
LIS Logistics Inventory System
LOA Letter of Authorization
LSA Light-Sport Aircraft
MCAI Mandatory Continuing Airworthiness Information
MIDO Manufacturing Inspection District Office
MIO Manufacturing Inspection Office
MIP Maintenance Implementation Procedure
MISO Manufacturing Inspection Satellite Office
NATO North Atlantic Treaty Organization
NATOPS Naval Air Training and Operating Procedures Standardization
NOA Notice of Availability
NTSB National Transportation Safety Board
ODA Organization Designation Authorization
PAH Production Approval Holder
PAO Public Aircraft Operations
PC Production Certificate
PCA Primary Category Aircraft**PI** Principal Inspector
PMA Parts Manufacturer Approval
POH Pilot's Operating Handbook
PPC Powered Parachute
PTRS Program Tracking and Reporting Subsystem
R&D Research and Development
RMO Records Management Officer
RPM Revolutions Per Minute
RVSM Reduced Vertical Separation Minimum
SFA Special Flight Authorization
SFAR Special Federal Aviation Regulation
SIF Special Interest Flight**SOC** Statement of Compliance
STC Supplemental Type Certificate**TC** Type Certificate
TCCA Transport Canada Civil Aviation

TCDS	Type Certificate Data Sheet
TSO	Technical Standard Order
VFR	Visual Flight Rules
VLA	Very Light Aircraft
WSC	Weight-Shift Control

Appendix G. Definitions

a. Aircraft Category. The term "category," as used regarding the certification of aircraft, means a grouping of aircraft based on their intended use or operating limitations, for example, normal, utility, acrobatic, or primary.

b. Aircraft Classification. The term "classification," as used regarding the certification of aircraft, means a broad grouping of aircraft having similar characteristics of propulsion, flight, or landing, that is, airplane, rotorcraft, glider, or balloon.

c. Amateur-Built Aircraft. Sometimes referred to as home-built aircraft. These aircraft have been issued an experimental certificate under Title 14 of the Code of Federal Regulations (14 CFR) part 21, Certification Procedures for Products and Parts, § 21.191(g).

d. Authorized Instructor. A person who holds a valid ground instructor certificate under part 61, Certification: Pilots, Flight Instructors, and Ground Instructors; or part 142, Training Centers; or a person who holds a current flight instructor certificate issued under part 61.

e. Bilateral Agreement. The term "bilateral agreement" means an executive agreement between the U.S. Government and the government of another country which facilitates the airworthiness approval or acceptance of civil aeronautical products exported from one country (contracting state) to the other. These agreements are not trade agreements, but rather technical cooperation agreements. These agreements are intended to provide a framework for the airworthiness authority of the importing country to give maximum practicable credit to airworthiness certification functions performed by the airworthiness authority of the exporting country using its own certification system.

f. Category of Special Airworthiness Certificates. The term "category" also is used to identify the six specific certification processes and the seven types of special airworthiness certificates issued.

g. Certification Office. The Federal Aviation Administration (FAA) certification office at which the applicant applies for airworthiness certification or related approval: Manufacturing Inspection District Office (MIDO), Manufacturing Inspection Satellite Office (MISO), Flight Standards District Office (FSDO), International Field Office (IFO), Certificate Management Office (CMO), or Certificate Management Unit (CMU).

h. Classification of Airworthiness Certificates. The term "classification" also is used to distinguish between the standard and special airworthiness certification processes and certificates.

i. Consensus Standard. For the purpose of certificating light-sport aircraft (LSA), an industry-developed consensus standard that applies to aircraft design, production, and airworthiness. It includes, but is not limited to, standards for aircraft design and performance, required equipment, manufacturer quality assurance systems, production acceptance test procedures, operating instructions, maintenance and inspection procedures, identification and recording of major repairs and major alterations, and continued airworthiness.

j. Continued Airworthiness System. For the purpose of eligibility in certificating LSA, the manufacturer's closed-loop system consisting of controls, procedures, and requirements for monitoring and correcting safety-of-flight issues through the issuance of safety directives meeting the identified consensus standard.

k. Critical Characteristic. Any feature throughout the life cycle of a Flight-Safety Critical Aircraft Part (FSCAP) which, if nonconforming, missing, or degraded, could cause a catastrophic failure resulting in loss or serious damage to the aircraft or an uncommanded engine shutdown resulting in an unsafe condition. A characteristic can be critical in terms of dimension, tolerance, finish, or material; an assembly, manufacturing, or inspection process; or an operation, field maintenance, or depot overhaul requirement. A manufacturing-critical characteristic is produced during the manufacturing process. An installation-critical characteristic, such as torque, is critical in terms of assembly or installation.

l. Dual-Use Product or Article. Any product or article manufactured for civil application by a production approval holder (PAH) authorized by the FAA and produced under a U.S. military contract. The military product (or article thereof) has the same part number and configuration as its civil counterpart and is manufactured using the same FAA-approved design, materials, and manufacturing processes. This could also include any product or article originally produced for the military which currently holds a normal, utility, acrobatic, or transport type certificate (TC) issued under part 21.

m. Exception. A case in which a rule, general principle, etc., does not apply.

n. Exemption. Approval to be free from current regulations in 14 CFR.

o. Experimental Light-Sport Aircraft. An aircraft issued an experimental operating light-sport category aircraft airworthiness certificate. Experimental light-sport aircraft applies to those aircraft for which the certificate is issued regardless of the purpose within § 21.191(i).

p. Export. When a product or article is found to be airworthy, meets the special conditions of the importing country/jurisdiction, and is transferred from one civil aviation authority's (CAA) regulatory authority to another CAA's regulatory authority.

q. Flight Safety-Critical Aircraft Part. Any article containing a critical characteristic whose failure, malfunction, or absence could cause (1) a catastrophic failure resulting in loss or serious damage to the aircraft, or (2) an uncommanded engine shutdown resulting in an unsafe condition.

r. Light-Sport Aircraft (LSA). A category of simple, very basic, small, lightweight, low-performance aircraft. It is an aircraft other than a helicopter or powered-lift. Also refer to definition in part 1, Definitions and Abbreviations, § 1.1.

s. Light-Sport Aircraft (LSA) Statement of Compliance. A signed statement made by the aircraft manufacturer stating that the aircraft (specific by serial number) was designed, manufactured, and is supported with a monitoring and correction of safety-of-flight within a continued airworthiness system, in accordance with the appropriate consensus standards.

t. Light-Sport Category. With respect to aircraft certification, the light-sport category adds a group of aircraft based on the definition in § 1.1, limiting size, weight, and speed, and how the aircraft is equipped. This category contains four classes of aircraft: airplanes and gliders, powered parachutes, weight-shift control, and lighter-than-air aircraft.

u. Light-Sport Eligible Kit. An eligible kit is one that is of the same make and model aircraft that has been issued a light-sport category airworthiness certificate by the FAA. The kit is manufactured by the same entity that built the aircraft, and that aircraft has been issued the LSA airworthiness certificate. Once built, the owner-assembled kit aircraft is eligible for the experimental, operating LSA certificate.

v. Manufacturer. A person who causes a product or article thereof to be produced.

w. Military Surplus Product or Article. A product or article that originally was released as surplus by the U.S. military, even if subsequently resold by a manufacturer, owner/operator, repair facility, or any other parts supplier.

x. Military-Unique Flight Safety-Critical Aircraft Part (FSCAP). Any FSCAP specifically and uniquely designed and manufactured for the U.S. military, for which there is no corresponding FAA-approved type design or PAH engine, propeller, or article produced for civilian application. Breakout products or articles produced specifically for military use by a manufacturer other than an FAA PAH using military-provided designs, drawings, and specifications also are considered military-unique.

y. Part Out. To remove an article from or disassemble an aircraft, engine, propeller, or article(s).

z. Powered Parachute. A powered aircraft comprised of a flexible or semi-rigid wing connected to a fuselage so the wing is not in position for flight until the aircraft is in motion. The fuselage of a powered parachute contains the aircraft engine and a seat for each occupant, and is attached to the aircraft's landing gear.

aa. Pre-certification. An aircraft's state of condition before the issuance of an airworthiness certificate for that aircraft.

bb. Production Approval Holder (PAH). A holder of a production certificate (PC), a parts manufacturer approval (PMA), or a technical standard order (TSO) authorization who controls the design and quality of a product or article thereof.

cc. U.S. Department of Defense (DOD) Commercial and Government Entity (CAGE) Code. The DOD CAGE code identifies the manufacturer of the article or product produced under government contract.

Appendix H. Administrative Information

1. Distribution. This order is distributed to the Washington Headquarters division and office levels of the Federal Aviation Administration (FAA) Aircraft Certification Service (AIR) and Flight Standards Service; to the branch levels of the Aircraft Certification Service; to the branch levels in the regional Flight Standards Divisions and Aircraft Certification Directorates; to all Flight Standards District Offices and International Field Offices; to all Aircraft Certification Offices; to all Certificate Management Offices and all Manufacturing Inspection District and Satellite Offices; and to the Aircraft Certification and Airworthiness Branches of the FAA Academy.

2. Authority to Change This Order. The issuance, revision, or cancellation of the material in this order is the responsibility of the AIR Design, Manufacturing, and Airworthiness Division (AIR-100).

3. Deviations. Adherence to the procedures in this order is necessary for uniform administration of this directive material. Any deviations from this guidance material must be coordinated and approved by AIR-100. If a deviation is necessary, the FAA employee involved should ensure the deviations are substantiated, documented, and concurred with by the appropriate supervisor. The deviation must be submitted to AIR-100 for review and approval. The limits of Federal protection for FAA employees are defined in Title 28 of the United States Code (28 U.S.C.) 2679.

4. Suggestions for Improvements. Please forward all comments on deficiencies, clarifications, or improvements regarding the contents of this order to—

Aircraft Certification Service
Administrative Services Branch, AIR-510
ATTN: Directives Management Officer
800 Independence Ave. SW.
Washington, DC 20591

Your suggestions are welcome. FAA Form 1320-19, Directive Feedback Information, is located in appendix I to this order for your convenience. If you require an immediate interpretation, please contact AIR-100 at (202) 385-6346; however, you should also complete FAA Form 1320-19 as a followup to the conversation.

5. Records Management. Refer to FAA Orders 0000.1, *FAA Standard Subject Classification System*; 1350.14, *Records Management*; and 1350.15, *Records Organization, Transfer, and Destruction Standards*; and FAA IR-04-01, *Records Management Requirements Manual*, or see your office Records Management Officer (RMO)/Directives Management Officer (DMO) for guidance regarding retention or disposition of records.

Appendix I. FAA Form 1320-19, Directive Feedback Information

U.S. Department
of Transportation
Federal Aviation Administration

Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: FAA Order 8130.2H

To: Administrative Services Branch, AIR-510

(Please check all appropriate line items)

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheet if necessary)

☐ In a future change to this directive, please include coverage on the following subject *(briefly describe what you want added):*

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

FTS Telephone Number: _____ Routing Symbol: _____

FAA Form 1320-19 (10-98)